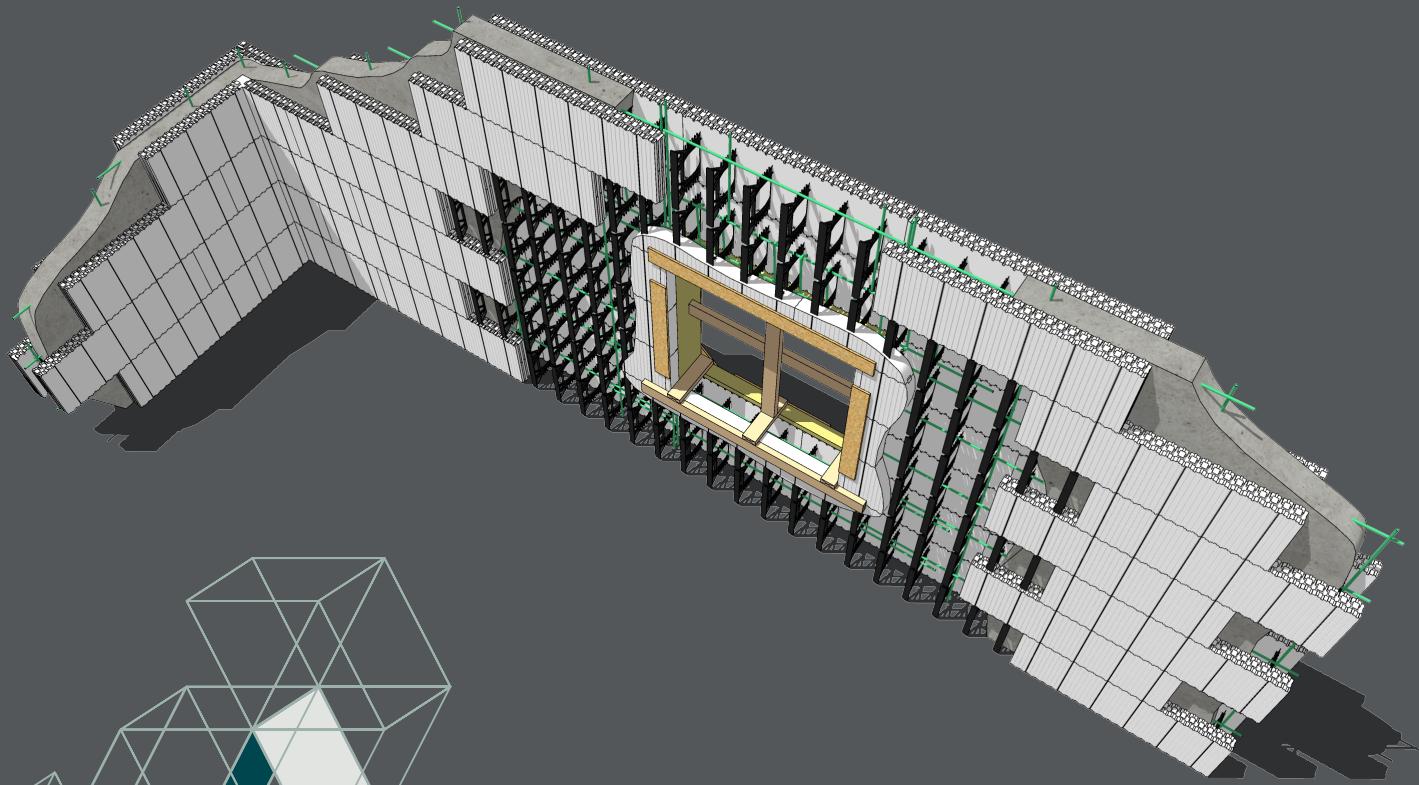


# Amvic™ ICF US Design Guide

## PROTECTIVE FOAM SOLUTIONS

**INNOVATIVE INSULATION CONSTRUCTION  
SOLUTIONS FOR ENERGY EFFICIENT AND  
COMFORTABLE BUILDINGS**



## Section 1 – Wall Reinforcement Design

There are three main resources for the engineering of flat ICF walls in the United States:

1. **Prescriptive Method for Insulating Concrete Forms in Residential Construction** prepared by NAHB (National Association of Home Builders) and PCA (Portland Cement Association). This document is widely recognized across most of the states, and is stated in the Amvic ICC (International Code Council) legacy report ESR-1269 as an approved engineering source.
2. **ACI 318 “Building Code Requirements for Structural Concrete”** is used for walls which are outside the scope and applicability limits of the Prescriptive Method. A local licensed/registered engineer is required to approve the design using this resource.
3. **International Building Code (IBC) and International Residential Code (IRC)** were created by the International Code Council (ICC) and are used as the base building code standard in most jurisdictions in the United States.

This guide makes use of only the Prescriptive Method and ACI 318.

### Section 1.1 – Prescriptive Method

The prescriptive method book can be downloaded online from the following link:

[https://www.huduser.gov/Publications/PDF/icf\\_2ed.pdf](https://www.huduser.gov/Publications/PDF/icf_2ed.pdf)

The articles and/or tables contained herein are reproduced from the prescriptive method and each will have the specific reference from which they were obtained.

#### Section 1.1.1 – Scope

##### [Prescriptive Method 1.3]

1. The provisions of the Prescriptive Method apply to the construction of detached one- and two-family homes, townhouses, and other attached single-family dwellings in compliance with the general limitations of Table 1.1 (below).



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Table 1.1 - Prescriptive Method Applicability Limits

Attribute	Maximum Limitation	
<b>General</b>		
Number of Stories	2 stories above grade plus a basement	
Design Wind Speed	150 mph (241 km/hr) 3-second gust (130 mph (209 km/hr) fastest-mile)	
Ground Snow Load	70 psf (3.4 kPa)	
Seismic Design Category	A, B, C, D1, and D2 (Seismic Zones 0, 1, 2, 3, and 4)	
<b>Foundations</b>		
Unbalanced Backfill Height	9' (2.7m)	
Presumptive Soil Bearing Value	1500 psf (71.85 kN/m <sup>2</sup> )	
Equivalent Fluid Density of Soil	UCS Classification	Soil Description
30 pcf (481 kg/m <sup>3</sup> )	GW, GP, SW, SP, GM	Well-drained, cohesionless soils such as clean (few or no fines) sand and gravels
45 pcf (721 kg/m <sup>3</sup> )	GW, GP, SW, SP, GM	Well-drained, cohesionless soils such as sand and gravels containing silt or clay
60 pcf (961 kg/m <sup>3</sup> )	SC, MH, CL, CH, ML-CL	Well-drained, inorganic silts and clays that are broken up into small pieces
<b>Walls</b>		
Unit Weight of Concrete	150 psf (23.6 kN/m <sup>3</sup> )	
Wall Height (unsupported)	10' (3m)	
<b>Floors</b>		
Floor Dead Load	15 psf (0.72 kPa)	Maximum Roof Slope 12:12
First Floor Live Load	40 psf (1.9 kPa)	Roof and Ceiling Dead Load 15 psf (0.72 kPa)
Second Floor Live Load (sleeping rooms)	30 psf (1.4 kPa)	Roof Live Load (ground snow load) 70 psf (3.4 kPa)
Floor Clean Span (unsupported)	32' (9.8m)	Attic Live Load 20 psf (0.96 kPa)
		Roof Clear Span (unsupported) 40' (12m)

For SI: 1 foot = 0.3048 m; 1 psf = 47.8804 Pa; 1 pcf = 157.0877 N/m<sup>3</sup> = 16.0179 kg/m<sup>3</sup>; 1 mph = 1.6093 km/hr

2. An engineered design shall be required for houses built along the immediate, hurricane-prone coastline subjected to storm surge (i.e., beach front property) or in near-fault seismic hazard conditions (i.e., Seismic Design Category E).
3. The provisions of the *Prescriptive Method* shall not apply to irregular structures or portions of structures in Seismic Design Categories C, D1, and D2.



## Section 1.1.2 – Material Specifications

### ICF Size

#### [Prescriptive Method 2.1.1]

1. Flat ICF wall systems shall have a minimum concrete thickness of 5.5 inches (140 mm) for basement walls and 3.5 inches (89 mm) for above-grade walls.

### Concrete Slump

#### [Prescriptive Method 2.2.1]

Ready-mixed concrete for ICF walls shall meet the requirements of ASTM C 94 [13]. Maximum slump shall not be greater than 6 inches (152 mm) as determined in accordance with ASTM C 143 [11]. Maximum aggregate size shall not be larger than 3/4 inch (19 mm).

Exception: Maximum slump requirements may be exceeded for approved concrete mixtures resistant to segregation, meeting the concrete compressive strength requirements, and in accordance with the ICF manufacturer's recommendations.

### Concrete Compressive Strength

#### [Prescriptive Method 2.2.2]

1. The minimum specified compressive strength of concrete,  $f'_c$ , shall be 2,500 psi (17.2 MPa) at 28 days as determined in accordance with ASTM C 31 [8] and ASTM C 39 [9].
2. For Seismic Design Categories D1 and D2, the minimum compressive strength of concrete,  $f'_c$ , shall be 3,000 psi (20 MPa).

### Reinforcing Steel

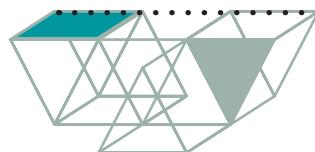
#### [Prescriptive Method 2.2.3]

1. Reinforcing steel used in ICFs shall meet the requirements of ASTM A 615 [14], ASTM A 996 [15], or ASTM A 706 [16].
2. In Seismic Design Categories D1 and D2, reinforcing steel shall meet the requirements of ASTM A706 [16] for low-alloy steel.
3. The minimum yield strength of the reinforcing steel shall be 40,000 psi, Grade 40 (300 MPa) except in Seismic Design Categories D1 and D2 where reinforcing steel shall have a minimum yield strength of 60,000 psi (Grade 60) (414 MPa).
4. Steel reinforcement shall have a minimum 3/4-inch (19mm) concrete cover.

### EPS Materials

#### [Prescriptive Method 2.3]

1. Insulating concrete forms shall be constructed of rigid foam plastic meeting the requirements of ASTM C 578 [17].
2. Flame-spread rating of ICF forms that remain in place shall be less than 75 and smoke-development rating of such forms shall be less than 450, tested in accordance with ASTM E 84.



### Section 1.1.3 – Footings

**[Prescriptive Method 3.1]**

1. Width for concrete footings shall be as set forth in Table 3.1 (below).
2. Foundations erected on soils with a bearing value of less than 2000psf (96kPa) shall be designed in accordance with accepted engineering practice.

Table 3.1 - Prescriptive Method

Applicability Limits Footings For ICF Walls (notes 1, 2 and 3 below)

Maximum Number of Storeys <sup>4</sup>	Concrete Footing Width, in (mm)				
	2000 (96)	2500 (120)	3000 (144)	3500 (168)	4000 (192)
<b>6" (152mm) ICF<sup>5</sup></b>					
One Storey <sup>6</sup>	15 (381)	12 (305)	10 (254)	9 (229)	8 (203)
Two Storey <sup>6</sup>	20 (508)	16 (406)	13 (330)	12 (305)	10 (254)
<b>8" (203mm) ICF<sup>5</sup></b>					
One Storey <sup>7</sup>	18 (457)	14 (356)	12 (305)	10 (254)	8 (203)
Two Storey <sup>7</sup>	24 (610)	19 (483)	16 (406)	14 (356)	12 (305)
<b>10" (254mm) ICF<sup>5</sup></b>					
One Storey	20 (508)	16 (406)	13 (330)	11 (279)	10 (254)
Two Storey	27 (686)	22 (559)	18 (457)	15 (381)	14 (356)

<sup>1</sup> Minimum footing thickness shall be the greater of one third of the footing width or 11" (279mm) when a dowel is required in accordance with Section 6.0.

<sup>2</sup> Footing width shall have a minimum 2" (51mm) projection from either face of the ICF wall to the edge of the footing.

<sup>3</sup> Table values are based on 32' (9.8m) building width (floor and roof clear span).

<sup>4</sup> Basement walls shall not be considered as a storey in determining footing widths.

<sup>5</sup> Applicable to both R22 and R30 ICF

<sup>6</sup> Applicable also for 8" (203mm) thick or 10" (254mm) thick ICF foundation wall supporting 4" (102mm) thick ICF stories.

<sup>7</sup> Applicable also for 10" (254mm) thick ICF foundation wall storey supporting 6" (152mm) thick ICF stories.



**Section 1.1.3.1 – ICF Foundation Wall-to-Footing Connection****[Prescriptive Method – 6.1]**

1. No vertical reinforcement (i.e. dowels) across the joint between the foundation wall and the footing is required when one of the following exists:
  - The unbalanced backfill height does not exceed 4 feet (1.2 m)
  - The interior floor slab is installed in accordance with Figure 3.3 before backfilling.
  - Temporary bracing at the bottom of the foundation wall is erected before backfilling and remains in place during construction until an interior floor slab is installed in accordance with Figure 3.3 (from prescriptive book) or the wall is backfilled on both sides (i.e. stem wall).
2. For foundation walls that do not meet one of the above requirements, vertical reinforcement (i.e. dowel) shall be installed across the joint between the foundation wall and the footing at 48 inches (1.2 m) on center in accordance with Figure 6.1.
3. Vertical reinforcement (i.e. dowels) shall be provided for all foundation walls for buildings located in regions with 3 second gust design wind speeds greater than 130 mph (209 km/hr) or located in Seismic Design Categories D1 and D2 at 18 inches (457 mm) on center.

Exception: The foundation wall's vertical wall reinforcement at intervals of 4 feet (1.2 m) on center shall extend 8 inches (203 mm) into the footing in lieu of using a dowel as shown in Figure 6.1.

**Section 1.1.4 – Foundation Wall Requirements****CrawlSpace Walls****[Prescriptive Method – 3.2.2]**

Applicable to walls 5 feet (1.5m) or less in height with a maximum unbalanced backfill height of 4 feet (1.2m) for a one-storey construction with floor bearing on top of crawl space wall.

1. ICF crawl space walls shall be laterally supported at the top and bottom of the wall in accordance with Section 6.0.
2. A minimum of one horizontal no. 4 bar shall be placed within 12 inches (305mm) of the top of the crawl space wall.



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3. Vertical reinforcement shall be as per table 3.2. For crawlspace walls carrying ICF wall on top, vertical reinforcement shall be the greater of that required in table 3.2 or table 4.2 in the following section

Table 3.2 - Prescriptive Method

Minimum Vertical Wall Reinforcement For ICF Crawlspace Walls<sup>1,2,3,4,5,6</sup>

Shape Of Concrete Walls	Wall Thickness <sup>7</sup> (Inches)	Minimum Vertical Reinforcement		
		Maximum Equivalent Fluid Density 30 pcf	Maximum Equivalent Fluid Density 45 pcf	Maximum Equivalent Fluid Density 60 pcf
Flat	3.5 <sup>8</sup>	#3 @ 16"; #4 @ 32"	#3 @ 18"; #4 @ 28"; #5@38"	#3 @ 12"; #4 @ 22"; #5 @ 28"
	5.5	#3 @ 24"; #4 @ 48"	#3 @ 24"; #4 @ 48"	#3 @ 24"; #4 @ 48"
	7.5	N/R	N/R	N/R

For SI: 1 foot = 0.3048 m; 1 inch = 25.4 mm; 1 pcf = 16.0179 kg/m<sup>3</sup>

<sup>1</sup> Table values are based on reinforcing bars with a minimum yield strength of 40,000 psi (276 MPa) and concrete with a minimum specified compressive strength of 2,500 psi (17.2 MPa).

<sup>2</sup> N/R indicates no vertical wall reinforcement is required.

<sup>3</sup> Spacing of rebar shall be permitted to be multiplied by 1.5 when reinforcing steel with a minimum yield strength of 60,000 psi (414 MPa) is used. Reinforcement, when required, shall not be less than one #4 bar at 48 inches (1.2 m) on center.

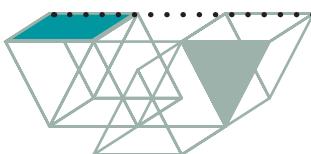
<sup>4</sup> Applicable only to crawlspace walls 5 feet (1.5 m) or less in height with a maximum unbalanced backfill height of 4 feet (1.2 m).

<sup>5</sup> Interpolation shall not be permitted.

<sup>6</sup> Walls shall be laterally supported at the top before backfilling.

<sup>7</sup> Actual thickness is shown for flat walls while nominal thickness is given for waffle-and screen-grid walls. Refer to Section 2.0 for actual waffle-and screen-grid thickness and dimensions.

<sup>8</sup> Applicable only to one-storey construction with floor bearing on top of crawlspace wall.



## Basement Walls

### [Prescriptive Method – 3.2.3]

1. Basement walls shall be laterally supported at the top and bottom of the wall in accordance with section 6.0.
2. Minimum horizontal reinforcement shall be as per table 3.3.

Table 3.3 - Prescriptive Method

#### Minimum Horizontal Wall Reinforcement For ICF Basement Walls

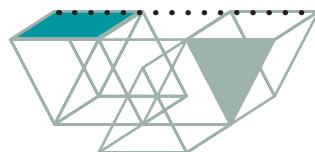
Maximum Height Of Basement Wall Feet (Meters)	Location of Horizontal Reinforcement
8 (2.4)	One No.4 bar within 12 inches (305 mm) of the top of the wall storey and one No.4 bar near mid-height of the wall storey
9 (2.7)	One No.4 bar within 12 inches (305 mm) of the top of the wall storey and one No.4 bar near third points in the wall storey
10 (3.0)	One No.4 bar within 12 inches (305 mm) of the top of the wall storey and one No.4 bar near third points in the wall storey

For SI: 1 foot = 0.3048 m; 1 inch = 25.4 mm; 1 pcf = 16.0179 kg/m<sup>3</sup>

Horizontal reinforcement requirements are for reinforcing bars with a minimum yield strength from 40,000 psi (276 MPa) and concrete with a minimum concrete compressive strength of 2,500 psi (17.2 Mpa)

3. Vertical wall reinforcement shall be as per the following tables:

- a) Prescriptive Method Table 3.4 – For use with Amvic™ 6 inch (152 mm) basement walls.
- b) Prescriptive Method Table 3.5 – For use with Amvic™ 8 inch (203 mm) basement walls.
- c) Prescriptive Method Table 3.6 – For use with Amvic™ 10 inch (254 mm) basement walls.



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Table 3.4 - Prescriptive Method

Minimum Vertical Wall Reinforcement For 5.5 inch (140 mm) Thick Flat ICF Basement Walls<sup>1,2,3,4,5</sup>

Max Wall Height (Feet)	Maximum Unbalanced Backfill Height <sup>6</sup> (Feet)	Minimum Vertical Reinforcement		
		Maximum Equivalent Fluid Density 30 Pcf	Maximum Equivalent Fluid Density 45 Pcf	Maximum Equivalent Fluid Density 60 Pcf
8	4	#4@48"	#4@48"	#4@48"
	5	#4@48"	#3@12"; #4@22"; #5@32"; #6@40"	#3@8"; #4@14"; #5@20"; #6@26"
	6	#3@12"; #4@22"; #5@30"; #6@40"	#3@8"; #4@14"; #5@20"; #6@24"	#3@6"; #4@10"; #5@14"; #6@20"
	7	#3@8"; #4@14"; #5@22"; #6@26"	#3@5"; #4@10"; #5@14"; #6@18"	#3@4"; #4@6"; #5@10"; #6@14"
9	4	#4@48"	#4@48"	#4@48"
	5	#4@48"	#3@12"; #4@20"; #5@28"; #6@36"	#3@8"; #4@14"; #5@20"; #6@22"
	6	#3@10"; #4@20"; #5@28"; #6@34"	#3@6"; #4@12"; #5@18"; #6@20"	#4@8"; #5@14"; #6@16"
	7	#3@8"; #4@14"; #5@20"; #6@22"	#4@8"; #5@12"; #6@16"	#4@6"; #5@10"; #6@12"
10	8	#3@6"; #4@10"; #5@14"; #6@16"	#4@6"; #5@10"; #6@12"	#4@4"; #5@6"; #6@8"
	4	#4@48"	#4@48"	#4@48"
	5	#4@48"	#3@10"; #4@18"; #5@26"; #6@30"	#3@6"; #4@14"; #5@18"; #6@20"
	6	#3@10"; #4@18"; #5@24"; #6@30"	#3@6"; #4@12"; #5@16"; #6@18"	#3@4"; #4@8"; #5@12"; #6@14"
11	7	#3@6"; #4@12"; #5@16"; #6@18"	#3@4"; #4@8"; #5@12"	#4@6"; #5@8"; #6@10"
	8	#3@4"; #4@8"; #5@12"; #6@14"	#4@6"; #5@8"; #6@12"	#4@4"; #5@6"; #6@8"
	9	#3@4"; #4@6"; #5@10"; #6@12"	#4@4"; #5@6"; #6@8"	#5@4"; #6@6"

For SI: 1 foot = 0.3048 m; 1 inch = 25.4 mm; 1 pcf = 16.0179 kg/m<sup>3</sup>

<sup>1</sup> Table values are based on reinforcing bars with a minimum yield strength of 40,000 psi (276 MPa) and concrete with a minimum specified compressive strength of 2,500 psi (17.2 MPa).

<sup>2</sup> Spacing of rebar shall be permitted to be multiplied by 1.5 when reinforcing steel with a minimum yield strength of 60,000 psi (414 MPa) is used. Reinforcement shall not be less than one #4 bar at 48 inches (1.2 m) on center.

<sup>3</sup> Deflection criterion is L/240, where L is the height of the basement wall in inches.

<sup>4</sup> Interpolation shall not be permitted.

<sup>5</sup> Walls shall be laterally supported at the top before backfilling.

<sup>6</sup> Refer to Section 1.0 for the definition of unbalanced backfill height.

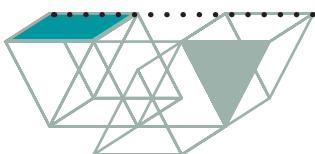


Table 3.5 - Prescriptive Method

Minimum Vertical Wall Reinforcement For 7.5 Inch (191 Mm) Thick Flat ICF Basement Walls<sup>1,2,3,4,5,6</sup>

Max Wall Height (Feet)	Maximum Unbalanced Backfill Height <sup>7</sup> (Feet)	Minimum Vertical Reinforcement		
		Maximum Equivalent Fluid Density 30 Pcf	Maximum Equivalent Fluid Density 45 Pcf	Maximum Equivalent Fluid Density 60 Pcf
8	4	N/R	N/R	N/R
	5	N/R	N/R	N/R
	6	N/R	N/R	N/R
	7	N/R	#4@14"; #5@20"; #4@10"; #5@16"; #6@28"	#6@20"
9	4	N/R	N/R	N/R
	5	N/R	N/R	N/R
	6	N/R	N/R	#4@14"; #5@20"; #6@28"
	7	N/R	#4@12"; #5@18"; #4@8"; #5@14"; #6@26"	#6@18"
	8	#4@14"; #5@22"; #4@8"; #5@14"; #4@6"; #5@10"; #6@28"	#6@18"	#6@14"
10	4	N/R	N/R	N/R
	5	N/R	N/R	N/R
	6	N/R	N/R	#4@12"; #5@18"; #6@26"
	7	N/R	#4@12"; #5@18"; #4@8"; #5@12"; #6@24"	#6@18"
	8	#4@12"; #5@20"; #4@8"; #5@12"; #4@6"; #5@8"; #6@26"	#6@16"	#6@12"
	9	#4@10"; #5@14"; #4@6"; #5@10"; #4@4"; #5@6"; #6@20"	#6@12"	#6@10"

For SI: 1 foot = 0.3048 m; 1 inch = 25.4 mm; 1 pcf = 16.0179 kg/m<sup>3</sup><sup>1</sup> Table values are based on reinforcing bars with a minimum yield strength of 40,000 psi (276 MPa) and concrete with a minimum specified compressive strength of 2,500 psi (17.2 MPa).<sup>2</sup> Spacing of rebar shall be permitted to be multiplied by 1.5 when reinforcing steel with a minimum yield strength of 60,000 psi (414 MPa) is used. Reinforcement, when required, shall not be less than one #4 bar at 48 inches (1.2 m) on center.<sup>3</sup> N/R indicates no reinforcement is required.<sup>4</sup> Deflection criterion is L/240, where L is the height of the basement wall in inches.<sup>5</sup> Interpolation shall not be permitted.<sup>6</sup> Walls shall be laterally supported at the top before backfilling.<sup>7</sup> Refer to Section 1.0 for the definition of unbalanced backfill height.

Table 3.6 - Prescriptive Method

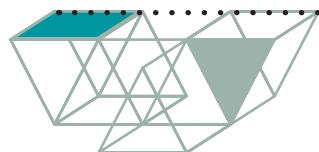
Minimum Vertical Wall Reinforcement For 9.5 Inch (241 mm) Thick Flat ICF Basement Walls<sup>1,2,3,4,5,6</sup>

Max Wall Height (Feet)	Maximum Unbalanced Backfill Height <sup>7</sup> (Feet)	Minimum Vertical Reinforcement		
		Maximum Equivalent Fluid Density 30 Pcf	Maximum Equivalent Fluid Density 45 Pcf	Maximum Equivalent Fluid Density 60 Pcf
8	4	N/R	N/R	N/R
	5	N/R	N/R	N/R
	6	N/R	N/R	N/R
	7	N/R	N/R	N/R
9	4	N/R	N/R	N/R
	5	N/R	N/R	N/R
	6	N/R	N/R	N/R
	7	N/R	N/R	#4@12"; #5@18"; #6@26"
10	8	N/R	#4@12"; #5@18"; #6@26"	#4@8"; #5@14"; #6@18"
	4	N/R	N/R	N/R
	5	N/R	N/R	N/R
	6	N/R	N/R	#4@18"; #5@26"; #6@36"
	7	N/R	N/R	#4@10"; #5@18"; #6@24"
8	8	N/R	#4@12"; #5@16"; #6@24"	#4@8"; #5@12"; #6@16"
	9	N/R	#4@8"; #5@12"; #6@18"	#4@6"; #5@10"; #6@12"

For SI: 1 foot = 0.3048 m; 1 inch = 25.4 mm; 1 pcf = 16.0179 kg/m<sup>3</sup><sup>1</sup> Table values are based on reinforcing bars with a minimum yield strength of 40,000 psi (276 MPa) and concrete with a minimum specified compressive strength of 2,500 psi (17.2 MPa).<sup>2</sup> Spacing of rebar shall be permitted to be multiplied by 1.5 when reinforcing steel with a minimum yield strength of 60,000 psi (414 MPa) is used. Reinforcement, when required, shall not be less than one #4 bar at 48 inches (1.2 m) on center.<sup>3</sup> N/R indicates no reinforcement is required.<sup>4</sup> Deflection criterion is L/240, where L is the height of the basement wall in inches.<sup>5</sup> Interpolation shall not be permitted.<sup>6</sup> Walls shall be laterally supported at the top before backfilling.<sup>7</sup> Refer to Section 1.0 for the definition of unbalanced backfill height.

**Seismic Requirements for Basement Walls****[Prescriptive Method – 3.2.4]**

1. Concrete foundation walls supporting above-grade ICF walls in Seismic Design Category C shall be reinforced with minimum No. 5 rebar at 24 inches (610 mm) on center (both ways) or a lesser spacing if required by Tables 3.2 through 3.6
2. Concrete foundation walls supporting above grade ICF walls in Seismic Design Categories D1 and D2 shall be reinforced with minimum No. 5 rebar at a maximum spacing of 18 inches (457 mm) on center (both ways) or a lesser spacing if required by Tables 3.2 through 3.6 and the minimum concrete compressive strength shall be 3,000 psi (20.5 MPa). Vertical reinforcement shall be continuous with ICF above grade wall vertical reinforcement. Alternatively, the reinforcement shall extend a minimum of 40db into the ICF above grade wall, creating a lap-splice with the above-grade wall reinforcement or extend 24 inches (610 mm) terminating with a minimum 90° bend of 6 inches in length.



## Section 1.1.5 – Above Grade Walls

### Wind Pressures

#### [Prescriptive Method – 4.1]

- Design Wind pressures of table 4.1 (below) shall be used to determine the vertical wall reinforcement requirements.

Table 4.1 - Prescriptive Method

Design Wind Pressure For Use With Minimum Vertical Wall Reinforcement Tables For Above Grade Walls<sup>1</sup>

Wind Speed (mph)	Design Wind Pressure (psf)					
	Enclosed <sup>2</sup> Exposure <sup>3</sup>			Partially Enclosed Exposure <sup>3</sup>		
	B	C	D	B	C	D
85	18	24	29	23	31	37
90	20	27	32	25	35	41
100	24	34	39	31	43	51
110	29	41	48	38	52	61
120	35	48	57	45	62	73
130	41	56	66	53	73	85 <sup>4</sup>
140	47	65	77	61	84 <sup>4</sup>	99 <sup>4</sup>
150	54	75	88 <sup>4</sup>	70	96 <sup>4</sup>	114 <sup>4</sup>

For SI: 1 psf = 0.0479 kN/m<sup>2</sup>; 1 mph = 1.6093 km/hr

<sup>1</sup> This table is based on ASCE 7-98 components and cladding wind pressures using a mean roof height of 35 ft (10.7 m) and a tributary area of 10 ft<sup>2</sup> (0.9 m<sup>2</sup>).

<sup>2</sup> Enclosure Classifications are as defined in Section 1.5d. Buildings are classified as partially enclosed or enclosed as defined in ASCE 754.

<sup>3</sup> Exposure Categories (as defined by section 1.5): Reflects the effect of the ground surface roughness on wind loads in accordance with ASCE 7 [4]. Exposure Category B includes urban and suburban areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger. Exposure Category C includes open terrain with scattered obstructions having heights generally less than 30 ft (9.1 m) and shorelines in hurricane prone regions. Exposure D includes open exposure to large bodies of water in non-hurricane-prone regions.

<sup>4</sup> For wind pressures greater than 80 psf (3.8 kN/m<sup>2</sup>), design is required in accordance with accepted practice and approved manufacturer guidelines.

- If relying on fastest mile speed maps or design provisions based on fastest wind speeds, the designer should convert wind speeds to 3 second gust wind in accordance with Table C1.1 for use with the given tables in this section.

Table C1.1 - Prescriptive Method

### Wind Speed Conversions

Fastest Mile (mph)	70	75	80	90	100	110	120	130
3-second Gust (mph)	85	90	100	110	120	130	140	150



Table 4.2 - Prescriptive Method

Minimum Vertical Wall Reinforcement For Flat ICF Above-Grade Walls<sup>1,2,3</sup>

Design Wind Pressure (Table 4.1) (psf)	Maximum Wall Height Per Storey (Feet)	Supporting Roof or Non-Load-Bearing Wall	Minimum Vertical Reinforcement <sup>4,5</sup>				Supporting ICF Second Storey and Light Frame Roof	
			Minimum Wall Thickness (Inches)		Supporting Light Frame Second Storey and Roof			
			3.5	5.5	3.5	5.5		
20	8	#4@48"	#4@48"	#4@48"	#4@48"	#4@48"	#4@48"	
	9	#4@48"	#4@48"	#4@48"	#4@48"	#4@48"	#4@48"	
	10	#4@38"	#4@48"	#4@40"	#4@48"	#4@42"	#4@48"	
30	8	#4@42"	#4@48"	#4@46"	#4@48"	#4@48"	#4@48"	
	9	#4@32"; #5@48"	#4@48"	#4@34"; #5@48"	#4@48"	#4@34"; #5@48"	#4@48"	
	10	Design Required	#4@48"	Design Required	#4@48"	Design Required	#4@48"	
40	8	#4@30"; #5@48"	#4@48"	#4@30"; #5@48"	#4@48"	#4@32"; #5@48"	#4@48"	
	9	Design Required	#4@42"	Design Required	#4@46"	Design Required	#4@48"	
	10	Design Required	#4@32"; #5@48"	Design Required	#4@34"; #5@48"	Design Required	#4@38"	
50	8	#4@20"; #5@30"	#4@42"	#4@22"; #5@34"	#4@46"	#4@24"; #5@36"	#4@48"	
	9	Design Required	#4@34"; #5@48"	Design Required	#4@34"; #5@48"	Design Required	#4@38"	
	10	Design Required	#4@26"; #5@38"	Design Required	#4@26"; #5@38"	Design Required	#4@28"; #5@46"	
60	8	Design Required	#4@34"; #5@48"	Design Required	#4@36"	Design Required	#4@40"	
	9	Design Required	#4@26"; #5@38"	Design Required	#4@28"; #5@46"	Design Required	#4@34"; #5@48"	
	10	Design Required	#4@22"; #5@34"	Design Required	#4@22"; #5@34"	Design Required	#4@26"; #5@38"	
70	8	Design Required	#4@28"; #5@46"	Design Required	#4@30"; #5@48"	Design Required	#4@34"; #5@48"	
	9	Design Required	#4@22"; #5@34"	Design Required	#4@22"; #5@34"	Design Required	#4@24"; #5@36"	
	10	Design Required	#4@16"; #5@26"	Design Required	#4@18"; #5@28"	Design Required	#4@20"; #5@30"	
80	8	Design Required	#4@26"; #5@38"	Design Required	#4@26"; #5@38"	Design Required	#4@28"; #5@46"	
	9	Design Required	#4@20"; #5@30"	Design Required	#4@20"; #5@30"	Design Required	#4@21"; #5@34"	
	10	Design Required	#4@14"; #5@24"	Design Required	#4@14"; #5@24"	Design Required	#4@16"; #5@26"	

For SI: 1 foot = 0.3048 m; 1 inch = 25.4 mm; 1 mph = 1.6093 km/hr

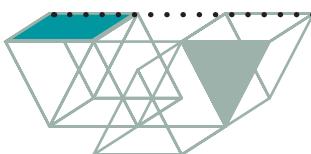
<sup>1</sup> This table is based on reinforcing bars with a minimum yield strength of 40,000 psi (276 Mpa) and concrete with a minimum specified compression strength of 2,500 psi (17.2 Mpa)<sup>2</sup> Deflection criterion is L/240 where L is the height of the wall storey in inches.<sup>3</sup> Interpolation shall not be permitted.<sup>4</sup> Reinforcement spacing for 3.5 inch (88.9 mm) walls shall be permitted to be multiplied by 1.6 when reinforcing steel with a minimum yield strength of 60,000 psi (414 Mpa) is used. Reinforcement shall not be less than one #4 bar at 48 inches (1.2m) on center.<sup>5</sup> Reinforcement spacing for 5.5 inch (139.7 mm) walls shall be permitted to be multiplied by 1.5 when reinforcing steel with a minimum yield strength of 60,000 psi (414 Mpa) is used. Reinforcement shall not be less than one #4 bar at 48 inches (1.2m) on center.<sup>6</sup> A 3.5 inch wall shall not be permitted if wood ledgers are used to support floor or roof loads.

**Above Grade Wall Reinforcement****[Prescriptive Method – 4.1]**

1. Horizontal wall reinforcement shall be required in the form of one No. 4 rebar within 12 inches (305 mm) from the top of the wall, one No. 4 rebar within 12 inches (305 mm) from the finish floor, and one No. 4 rebar near one-third points throughout the remainder of the wall.
2. The vertical wall reinforcement shall be as per the Prescriptive Method table 4.2 (below). This table can be used for Amvic™ 4 inch (100 mm) and 6 inch (152 mm) above grade ICF walls.

**Seismic & Wind Requirements****[Prescriptive Method – 4.1]**

1. In Seismic Design Category C, the minimum vertical and horizontal reinforcement shall be one No. 5 rebar at 24 inches (610 m) on center or lesser spacing if required by table 4.2.
2. In Seismic Design Categories D1 and D2, the minimum vertical and horizontal reinforcement shall be one No. 5 rebar at a maximum spacing of 18 inches (457 mm) on center or lesser spacing if required by table 4.2 and the minimum concrete compressive strength shall be 3,000 psi (20.5 MPa).
3. For design wind pressure greater than 40 psf (1.9 kPa) or Seismic Design Category C or greater, all vertical wall reinforcement in the top-most ICF storey shall be terminated with a 90 degree bend. The bend shall result in a minimum length of 6 inches (152 mm) parallel to the horizontal wall reinforcement and lie within 4 inches (102 mm) of the top surface of the ICF wall. In addition, horizontal wall reinforcement at exterior building corners shall be terminated with a 90 degree bend resulting in a minimum lap splice length of 40db with the horizontal reinforcement in the intersecting wall. The radius of bends shall not be less than 4 inches (102 mm).



**Seismic & Wind Wall Opening Requirements****[Prescriptive Method – 5.1]**

- For minimum amount of solid wall length for different wind pressures, please refer to prescriptive tables 5.1, 5.2A, 5.2B and 5.2C.

Table 5.1 - Prescriptive Method

Wind Velocity Pressure For Determination of Minimum Solid Wall Length<sup>1</sup>

Wind Speed (mph)	Velocity Pressure (psf) Exposure <sup>2</sup>		
	B	C	D
85	14	19	23
90	16	21	25
100	19	26	31
110	23	32	37
120	27	38	44
130	32	44	52
140	37	51	60
150	43	59	69 <sup>3</sup>

For SI: 1 psf = 0.0479 kN/m<sup>2</sup>; 1 mph = 1.6093 km/hr<sup>1</sup> Table values are based on ASCE 7-98 Figure 6-4 wind velocity pressures for low-rise buildings using a mean roof height of 35 ft (10.7 m).<sup>2</sup> Exposure Categories are as defined in Section 1.5.<sup>3</sup> Design is required in accordance with acceptable practice and approved manufacturer guidelines.

Table 5.2A - Prescriptive Method

Minimum Solid End Wall Requirements For Flat ICF Walls (Wind Perpendicular To Ridge)<sup>1,2,3,4,5</sup>

Design Velocity Pressure (psf)		20	25	30	35	40	45	50	60
Wall Category	Side Wall Length, L (Feet)	Building Side Wall Slope	Minimum Solid Wall Length on Building End Wall (Feet)						
One-storey or Top Storey of Two-Storey	16	≤ 1:12	4.00	4.00	4.00	4.00	4.00	4.00	4.00
		5:12	4.00	4.00	4.00	4.00	4.00	4.25	4.50
		7:12 <sup>4</sup>	4.00	4.25	4.25	4.50	4.75	4.75	5.00
		12:12 <sup>4</sup>	4.25	4.50	4.75	5.00	5.25	5.50	5.75
	24	≤ 1:12	4.00	4.00	4.00	4.00	4.00	4.25	4.50
		5:12	4.00	4.00	4.00	4.25	4.25	4.50	4.75
		7:12 <sup>4</sup>	4.25	4.50	4.75	5.00	5.25	5.50	6.25
		12:12 <sup>4</sup>	4.75	5.00	5.25	5.75	6.00	6.50	7.50
	32	≤ 1:12	4.00	4.00	4.00	4.00	4.25	4.25	4.50
		5:12	4.00	4.00	4.25	4.50	4.50	4.75	5.00
		7:12 <sup>4</sup>	4.50	5.00	5.25	5.50	6.00	6.25	7.25
		12:12 <sup>4</sup>	5.00	5.50	6.00	6.50	7.00	7.25	8.75
	40	≤ 1:12	4.00	4.00	4.25	4.25	4.50	4.50	4.75
		5:12	4.00	4.25	4.50	4.75	4.75	5.00	5.25
		7:12 <sup>4</sup>	4.75	5.25	5.75	6.00	6.50	7.00	8.00
		12:12 <sup>4</sup>	5.50	6.00	6.50	7.25	7.75	8.25	10.00
	50	≤ 1:12	4.00	4.25	4.25	4.50	4.75	4.75	5.00
		5:12	4.25	4.50	4.75	5.00	5.25	5.50	5.75
		7:12 <sup>4</sup>	5.25	5.75	6.25	6.75	7.25	7.75	8.25
		12:12 <sup>4</sup>	6.00	6.75	7.50	8.00	8.75	9.50	10.25
	60	≤ 1:12	4.00	4.25	4.50	4.75	5.00	5.25	5.75
		5:12	4.50	4.75	5.00	5.25	5.50	5.75	6.00
		7:12 <sup>4</sup>	5.50	6.25	6.75	7.50	8.00	8.50	9.25
		12:12 <sup>4</sup>	6.50	7.25	8.25	9.00	9.75	10.50	11.50

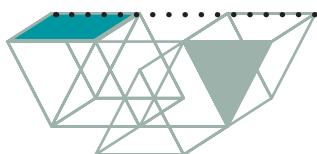
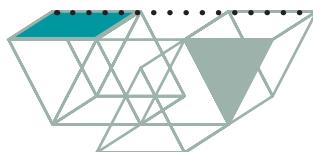
For SI: 1 foot = 0.3048 m; 1 inch = 25.4 mm; 1 psf = 0.0479 kN/m<sup>2</sup><sup>1</sup> Table values are based on reinforcing bars with a minimum yield strength of 40,000 psi (276 MPa) and concrete with a minimum specified compressive strength of 2,500 psi (17.2 MPa).<sup>2</sup> Table values are based on a 3.5 in (88.9 mm) thick flat wall. For a 5.5 in (139.7 mm) thick flat wall, multiply the table values by 0.9. The adjusted values shall not result in solid wall lengths less than 4 ft.<sup>3</sup> Table values are based on a maximum unsupported wall height of 10 ft (3.0 m).<sup>4</sup> Values are based on a 30 foot (9.1 m) building end wall width. For a 45 ft (13.7 m) building end wall and roof pitches greater than 7:12, multiply the table values by 1.2. For a 60 ft (18.3 m) building end wall and roof pitches greater than 7:12, multiply the table values by 1.4.<sup>5</sup> Linear interpolation shall be permitted.

Table 5.2B - Prescriptive Method

Minimum Solid End Wall Requirements For Flat ICF Walls (Wind Perpendicular To Ridge)<sup>1,2,3,4,5</sup>

Category	Design Velocity Pressure (psf)	Wall Side Wall Length, L (Feet)	20	25	30	35	40	45	50	60	
			Building Roof Slope	Minimum Solid Wall Length on Building End Wall (Feet)							
			≤ 1:12	4.00	4.25	4.50	4.75	5.00	5.25	5.75	
First Storey of Two-Storey	16	≤ 1:12	5:12	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.75
			7:12 <sup>4</sup>	4.50	5.00	5.25	5.75	6.00	6.25	6.75	7.25
			12:12 <sup>4</sup>	5.00	5.25	5.75	6.25	6.50	7.00	7.25	8.25
			≤ 1:12	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.75
	24	5:12	7:12 <sup>4</sup>	4.75	5.25	5.50	6.00	6.25	6.75	7.00	7.75
			12:12 <sup>4</sup>	5.25	5.75	6.25	6.75	7.00	7.50	8.00	9.00
			≤ 1:12	5.25	6.25	6.75	7.25	8.00	8.50	9.00	10.25
			7:12 <sup>4</sup>	5.50	6.25	6.75	7.25	8.00	8.50	9.00	10.25
	32	7:12 <sup>4</sup>	12:12 <sup>4</sup>	4.75	5.00	5.50	5.75	6.25	6.50	6.75	7.50
			≤ 1:12	5.25	5.75	6.25	6.75	7.25	7.50	8.00	9.00
			12:12 <sup>4</sup>	6.25	7.00	7.75	8.50	9.25	10.00	10.75	12.25
			≤ 1:12	5.00	5.50	5.75	6.25	6.75	7.25	7.50	8.50
Two-Storey	40	12:12 <sup>4</sup>	5:12	5.50	6.25	6.75	7.25	8.00	8.50	9.00	10.25
			≤ 1:12	6.25	7.00	7.75	8.75	9.50	10.25	11.00	12.50
			7:12 <sup>4</sup>	7.00	8.00	9.00	10.00	10.75	11.75	12.75	14.50
			12:12 <sup>4</sup>	7.00	8.00	8.75	9.75	10.75	11.50	12.50	14.25
	50	≤ 1:12	5:12	6.00	6.75	7.50	8.25	9.00	9.75	10.50	11.75
			7:12 <sup>4</sup>	7.75	9.00	10.00	11.25	12.25	13.50	14.75	17.00
			12:12 <sup>4</sup>	7.75	9.00	10.00	11.25	12.25	13.50	14.75	17.00
			5:12	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.50
60	60	7:12 <sup>4</sup>	≤ 1:12	5.75	6.50	7.00	7.50	8.25	8.75	9.50	10.75
			5:12	6.75	7.50	8.25	9.25	10.00	10.75	11.75	13.25
			12:12 <sup>4</sup>	7.75	9.00	10.00	11.00	12.25	13.25	14.50	16.75
			≤ 1:12	5.75	6.50	7.00	7.50	8.25	8.75	9.50	10.75

For SI: 1 foot = 0.3048 m; 1 inch = 25.4 mm; 1 psf = 0.0479 kN/m<sup>2</sup><sup>1</sup> Table values are based on reinforcing bars with a minimum yield strength of 40,000 psi (276 MPa) and concrete with a minimum specified compressive strength of 2,500 psi (17.2 MPa).<sup>2</sup> Table values are based on a 3.5 in (88.9 mm) thick flat wall. For a 5.5 in (139.7 mm) thick flat wall, multiply the table values by 0.9. The adjusted values shall not result in solid wall lengths less than 4 ft.<sup>3</sup> Table values are based on a maximum unsupported wall height of 10 ft (3.0 m).<sup>4</sup> Values are based on a 30 foot (9.1 m) building end wall width. For a 45 ft (13.7 m) building end wall and roof pitches greater than 7:12, multiply the table values by 1.2. For a 60 ft (18.3 m) building end wall and roof pitches greater than 7:12, multiply the table values by 1.4.<sup>5</sup> Linear interpolation shall be permitted.

## PART 6.2

## US DESIGN GUIDE

Table 5.2C - Prescriptive Method

Minimum Solid Wall Length Requirements For Flat ICF Walls (Wind Parallel To Ridge)<sup>1,2,3,4,5</sup>

Wall Category	Design Velocity Pressure (psf)	20	25	30	35	40	45	50	60
		Building End Wall Width, W (Feet)	Minimum Solid Wall Length on Building Side Wall (Feet)						
One Storey of Top Storey of Two-Storey	16	4	4	4	4	4.25	4.25	4.5	4.75
	24	4	4.25	4.5	4.75	4.75	5	5.25	5.5
	32	4.5	4.75	5	5.25	5.5	6	6.25	6.75
	40	5	5.5	5.75	6.25	6.75	7	7.5	8.25
	50	5.75	6.25	7	7.5	8.25	8.75	9.5	10.75
	60	6.5	7.5	8.25	9.25	10	10.75	11.75	13.25
First Storey of Two-Storey	16	4.25	4.5	4.75	5	5.25	5.5	5.75	6.5
	24	4.75	5.25	5.5	6	6.25	6.75	7	8
	32	5.5	6	6.5	7	7.5	8	8.75	9.75
	40	6.25	7	7.5	8.25	9	9.75	10.5	12
	50	7.25	8.25	9.25	10.25	11.25	12.25	13.25	15.25
	60	8.5	9.75	11	12.25	13.5	15	16.25	18.75

For SI: 1 foot = 0.3048 m; 1 inch = 25.4 mm; 1 psf = 0.0479 kN/m<sup>2</sup>

<sup>1</sup> Table values are based on reinforcing bars with a minimum yield strength of 40,000 psi (276 MPa) and concrete with a minimum specified compressive strength of 2,500 psi (17.2 MPa).

<sup>2</sup> Table values are based on a 3.5 in (88.9 mm) thick flat wall. For a 5.5 in (139.7 mm) thick flat wall, multiply the table values by 0.9. The adjusted values may not result in solid wall lengths less than 4 ft.

<sup>3</sup> Table values are based on a maximum unsupported wall height of 10 ft (3.0 m).

<sup>4</sup> Table values are based on a maximum 12:12 roof pitch.

<sup>5</sup> Linear interpolation shall be permitted.

2. Minimum amount of solid wall length for Seismic Design Categories C, D1 and D2 shall be as per table 5.5.

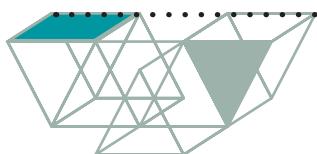


Table 5.5 - Prescriptive Method

Minimum Percentage of Solid Wall Length Along Exterior Wall Lines For Seismic Design Category C And D<sup>1,2</sup>

ICF Wall Type And Minimum Wall Thickness (Inches)	Minimum Solid Wall Length (Percent)		
	One-Storey Or Top Storey Of Two-Storey	Wall Supporting Light Frame Second Storey And Roof	Wall Supporting ICF Second Storey And Roof
Seismic Design Category C <sup>3</sup>	20 percent	25 percent	35 percent
Seismic Design Category D <sub>1</sub> <sup>4</sup>	25 percent	30 percent	40 percent
Seismic Design Category D <sub>2</sub> <sup>4</sup>	30 percent	35 percent	45 percent

For SI: 1 inch = 25.4 mm; 1 mph = 1.6093 km/hr

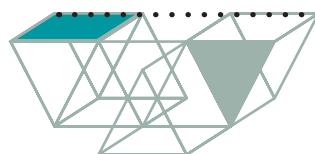
<sup>1</sup> Base percentages are applicable for maximum unsupported wall height of 10-feet (3.0-m), light-frame gable construction, all ICF wall types in Seismic Design Category C, and all ICF wall types with a nominal thickness greater than 5.5 inches (140 mm) for Seismic Design Category D1 and D2. These percentages assume that the maximum weight of the interior and exterior wall finishes applied to ICF walls do not exceed 8 psf (0.38 KN/m<sup>2</sup>)

<sup>2</sup> For all walls, the minimum required length of solid walls shall be based on the table percent value multiplied by the minimum dimensions of a rectangle inscribing the overall building plan.

<sup>3</sup> Walls shall be reinforced with minimum No.5 rebar (grade 40 or 60) spaced a maximum of 24 inches (609.6 mm) on center each way or No.4 rebar (Grade 40 or 60) spaced at a maximum of 16 inches (406.4 mm) on center each way.

<sup>4</sup> Walls shall be constructed with a minimum concrete compressive strength of 3,000 psi (20.7 Mpa) and reinforced with minimum #5 rebar (Grade 60, ASTM A706) spaced a maximum of 18 inches (457.2 mm) on center each way or No. 4 rebar (Grade 60, ASTM A706) spaced at a maximum of 12 inches (304.8 mm) on center each way.

3. The larger amount of solid wall length as required by tables 5.2A, 5.2B, 5.2C and 5.5 shall be used.



**Section 1.1.6 – Floor Joist Connections****[Prescriptive Method – 6.2.2]**

- Wood ledger board shall be anchored to flat ICF walls in accordance with table 6.1 (below).

Table 6.1 - Prescriptive Method

Floor Ledger - ICF Wall Connection (Side-Bearing Connection) Requirements<sup>1,2,3</sup>

Maximum Floor Clear Span <sup>4</sup> (Feet)	Maximum Anchor Bolt Spacing - 5 Inches			
	Staggered 1/2 Inch Diameter Anchor Bolts	Staggered 5/8 Inch Diameter Anchor Bolts	Two 1/2 Inch Diameter Anchor Bolts <sup>6</sup>	Two 5/8 Inch Diameter Anchor Bolts <sup>6</sup>
8	18	20	36	40
10	16	18	32	36
12	14	18	28	36
14	12	16	24	32
16	10	14	20	28
18	9	13	18	26
20	8	11	16	22
22	7	10	14	20
24	7	9	14	18
26	6	9	12	18
28	6	8	12	16
30	5	8	10	16
32	5	7	10	14

For SI: 1 foot = 0.3048 m; 1 inch = 25.4 mm

<sup>1</sup> Minimum ledger board nominal depth shall be 8 inches (203 mm). The actual thickness of the ledger board shall be a minimum of 1.5 inches (38 mm). Ledger board shall be minimum No. 2 Grade.

<sup>2</sup> Minimum edge distance shall be 2 inches (51 mm) for 1/2-inch-(13-mm-) diameter anchor bolts and 2.5 inches (64 mm) for 5/8-inch-(16-mm) diameter anchor bolts.

<sup>3</sup> Interpolation is permitted between floor spans.

<sup>4</sup> Floor span corresponds to the clear span of the floor structure (i.e., joists or trusses) spanning between load-bearing walls or beams.

<sup>5</sup> Anchor bolts shall extend through the ledger to the center of the flat ICF wall thickness or the center of the horizontal or vertical core thickness of the waffle-grid or screen-grid ICF wall system.

<sup>6</sup> Minimum vertical clear distance between bolts shall be 1.5 inches (38 mm) for 1/2-inch-(13-mm-) diameter anchor bolts and 2 inches (51 mm) for 5/8-inch-(16 mm) diameter anchor bolt

- Please refer to Prescriptive Method Section 6 for additional requirements on floor, roof, and minimum wall thickness requirements for high wind pressures and seismic design categories C, D1 and D2.



## Section 2 - Wall Opening Reinforcement Design

### Section 2.1- Reinforcing Steel for wall opening sides and Sill

Steel reinforcing bars are required for wall openings in reinforced concrete ICF walls around the sides and sill (bottom of opening) for windows. Diagonal reinforcing steel is also required at the corners of the wall openings. The main purpose of this reinforcing steel is to resist cracks in concrete due to shrinkage and temperature. Figures 1 and 2 below illustrates the placement of reinforcing steel accordingly;

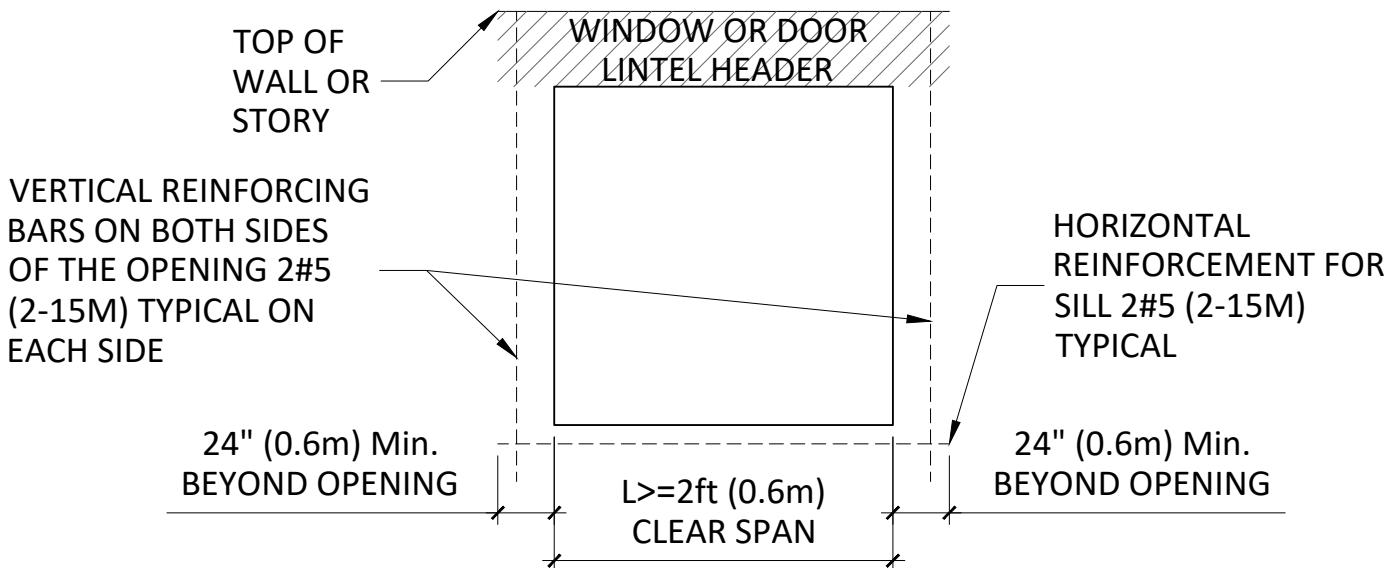
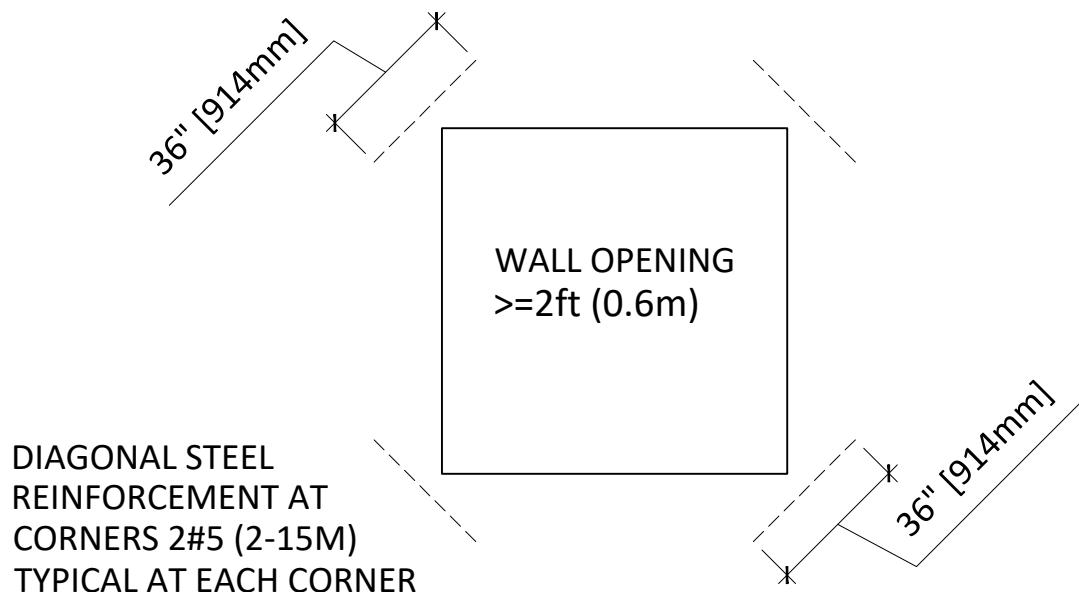


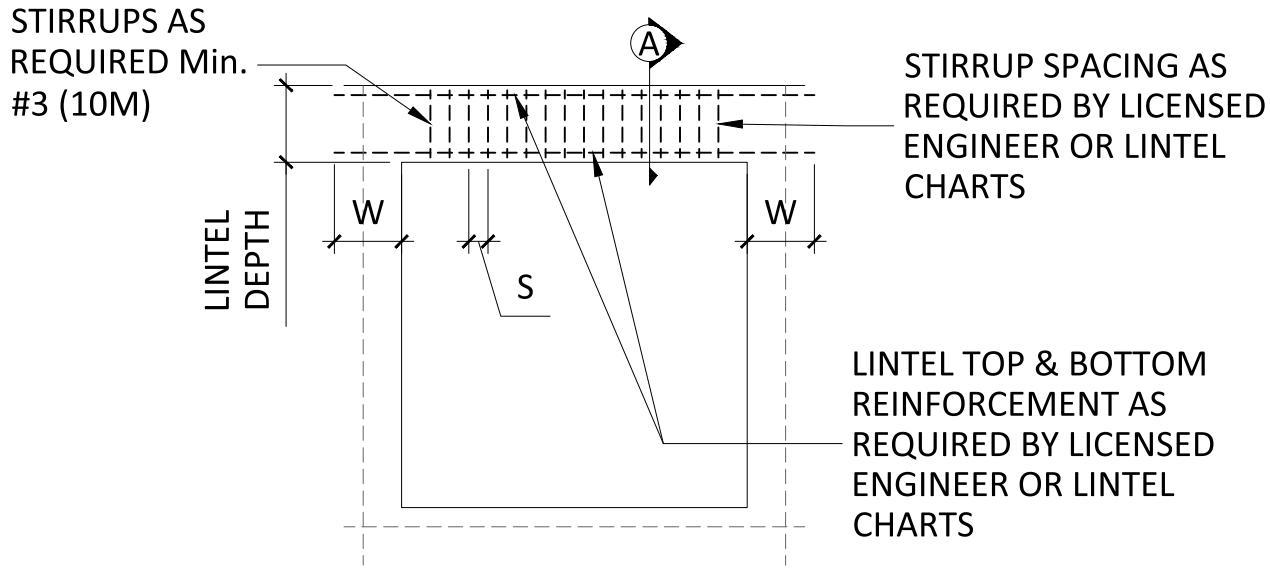
Figure 1 – Reinforcing steel for wall opening sides and sill



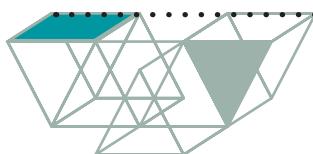
*Figure 2 – Diagonal reinforcing steel for wall openings*

## Section 2.2 - Lintels (Door and Window Headers)

Lintels are considered as beams that span over window or door openings. Lintels require special reinforcing details to satisfy engineering practices / local code requirements. Figures 3 and 4 below illustrate typical lintel reinforcing steel placement;



*Figure 3 – Reinforcing steel for lintels*



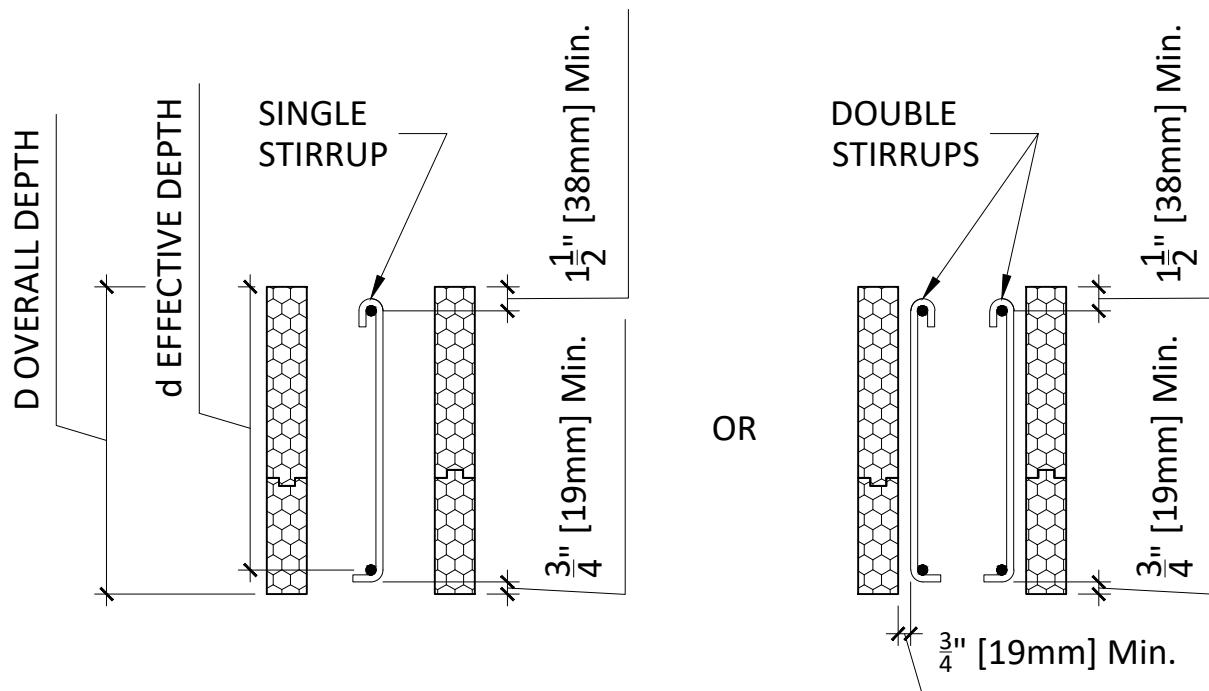


Figure 4 – Typical lintel cross sections

Lintel top and bottom reinforcement must extend the proper development length beyond the face of the opening and is indicated as (W) on the figure. The minimum development length depends on many factors. As a rule of thumb the minimum development length should be not less than 40 times the bar diameter and the minimum required should not be less than 24 inches in order to use the lintel charts. Table 1 gives the minimum (W) for the different reinforcing bars used in the charts.

If the wall opening is near the end of wall length and there is not enough space left for proper development length then the lintel reinforcing bars should be bent around the corner at 90° into the adjacent perpendicular wall.

Table 1 - Minimum Development Length (W) For Lintel Top & Bottom reinforcing Bars

Rebar Designation	Development Length (W)
<b>United States</b>	
#3	24 in
#4	24 in
#5	25 in
#6	30 in
#8	40 in
#9	45 in

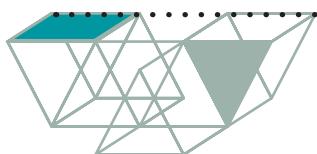


The prepared lintel charts are to be used as a guidelines for reinforcing steel requirements for different loading conditions and spans. The following Table 2, represents the limitations and assumptions that were used in developing the lintel charts.

Table 2 - Limitations for United States Lintel Charts

Item	Description	Limit
General	Number of stories	2 above grade
	Maximum Storey Height	12 feet
	Maximum Floor Clear Span	40 feet
	Maximum Roof Clear Span	42 feet
Dead Loads *	Floor	15 psf
	Partitions	10 psf
	Roof	15 psf
	Concrete Density	150 pcf
Live Loads *	Main Floor	40 psf
	Second Floor	30 psf
	Attic	20 psf
	Ground Snow Load	30 psf
		50 psf
Material Properties		70 psf
	Concrete F'C	3000 psi
	Steel Fy	60,000 psi

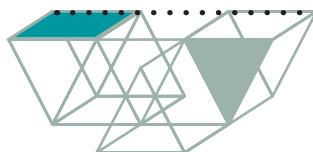
\*All loads given are service loads i.e. not factored



### Section 2.3 - Structural Assumptions

The following is a list of assumptions used in the development of the US Lintel charts;

1. Concrete compressive strength at 28 days  $F'c = 3000 \text{ psi (20 Mpa)}$ .
2. Steel reinforcing bars yield strength  $F_y = 60 \text{ ksi (400 Mpa)}$ .
3. Lintels are considered as single span beams with fixed ends due to the fact that the walls and lintels are monolithically cast.
4. All loads on the lintels are assumed as uniformly distributed loads. No concentrated loads from girders or trusses were considered.
5. Maximum reinforcing bar size used is #9 for the US.
6. Maximum number of bars for top or bottom of lintels is 2. No bundled bars were considered.
7. When the chart identifies a single reinforcing re-bar (e.g. 1-#5) for top or bottom, a single C-stirrup should be used as per the charts. If however double reinforcing bars for either top or bottom of lintel is identified (e.g. 2-#5) then a double C-stirrup MUST be used.
8. Never exchange a double reinforcing bars configuration for a single larger size bar (e.g. don't use 1-#5 instead of 2-#4 respectively).
9. The US lintel charts are based on ACI 318-02.



**Tables for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof**

ILL 4x10

ILL 4x12

ILL 4x16

ILL 4x20

ILL 4x24

ILL 6x10

ILL 6x12

ILL 6x16

ILL 6x20

ILL 6x24

ILL 8x10

ILL 8x12

ILL 8x16

ILL 8x20

ILL 8x24

ILL 10x10

ILL 10x12

ILL 10x16

ILL 10x20

ILL 10x24

**Disclaimer**

Alleguard assumes no liability whatsoever with regards to the correct use of the lintel tables. It is the user's responsibility to assess a specific situation and determine if the limitations and assumptions given in sections 2.2 & 2.3 are satisfied in order to use the tables. It is also the user's responsibility to determine the correct table to use for the specific lintel being considered.

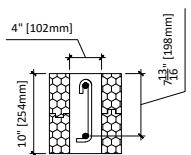


## PART 6.2

## US DESIGN GUIDE

### ILL 4x10 (P. 1/1)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1738.1	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
	50 psf	2034.2	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
	70 psf	2330.3	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
(15 feet)	30 psf	2314.0	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
	50 psf	2733.5	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
	70 psf	3152.9	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
(20 feet)	30 psf	2991.3	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
	50 psf	3534.1	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
	70 psf	4076.9	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
(25 feet)	30 psf	3653.2	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
	50 psf	4311.2	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
	70 psf	4969.2									
(30 feet)	30 psf	4556.2	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"				
	50 psf	5378.7									
	70 psf	6201.2									
(35 feet)	30 psf	5023.0									
	50 psf	5936.0									
	70 psf	6849.0									
(40 feet)	30 psf	5700.3									
	50 psf	6736.6									
	70 psf	7773.0									



Lintel Width = 4"  
 Lintel Depth = 10"  
 Effective Depth = 7.8"  
 $F_c$  @ 28 days = 3,000 psi  
 $F_y$  = 60,000 psi

**Legend**  
 1-#4 top = top rebar  
 1-#4 bot.= bottom rebar  
 #3 @ 3.75" = use #3 stirrup @ 3.75" O/C

\* Check applicability limits table 3 to use this chart

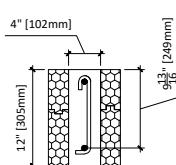


## PART 6.2

## US DESIGN GUIDE

### ILL 4x12 (P. 1/1)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1748.6	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	50 psf	2044.7	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	70 psf	2340.8	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#5 top 1-#4 bot. #3 @ 4.5"				
(15 feet)	30 psf	2324.5	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	50 psf	2744.0	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	70 psf	3163.4	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#5 top 1-#4 bot. #3 @ 4.5"				
(20 feet)	30 psf	3001.7	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#5 top 1-#4 bot. #3 @ 4.5"				
	50 psf	3544.6	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	70 psf	4087.4	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
(25 feet)	30 psf	3663.7	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	50 psf	4321.7	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	70 psf	4979.6	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
(30 feet)	30 psf	4566.7	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	50 psf	5389.2	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	70 psf	6211.7	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
(35 feet)	30 psf	5033.5	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	50 psf	5946.5	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	70 psf	6859.4									
(40 feet)	30 psf	5710.8	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"
	50 psf	6747.1									
	70 psf	7783.4									



Lintel Width = 4"  
Lintel Depth = 12"  
Effective Depth = 9.8"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#4 top = top rebar  
1-#4 bot. = bottom rebar  
#3 @ 4.5" = use #3 stirrup @ 4.5" O/C

\* Check applicability limits table 3 to use this chart

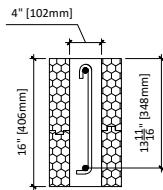


## PART 6.2

## US DESIGN GUIDE

### ILL 4x16 (P. 1/1)

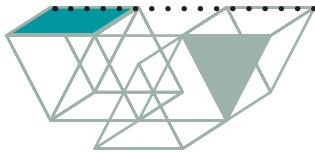
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1769.4	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot.
	50 psf	2065.5	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot.
	70 psf	2361.5	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.			
(15 feet)	30 psf	2345.3	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	50 psf	2764.7	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	70 psf	3184.2	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.			
(20 feet)	30 psf	3022.5	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	50 psf	3565.4	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	70 psf	4108.2	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
(25 feet)	30 psf	3684.4	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	50 psf	4342.4	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	70 psf	5000.4	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
(30 feet)	30 psf	4587.5	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	50 psf	5409.9	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	70 psf	6232.4	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
(35 feet)	30 psf	5054.3	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	50 psf	5967.3	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	70 psf	6880.2	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
(40 feet)	30 psf	5731.6	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	50 psf	6767.9	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.
	70 psf	7804.2	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot.	1-#5 top 1-#5 bot.



Lintel Width = 4"  
 Lintel Depth = 16"  
 Effective Depth = 13.75"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#4 top = top rebar  
 1-#4 bot. = bottom rebar  
 #3 @ 6.5" = use #3 stirrup @ 6.5" O/C

\* Check applicability limits table 3 to use this chart

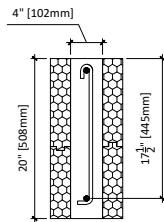


## PART 6.2

## US DESIGN GUIDE

### ILL 4x20 (P. 1/2)

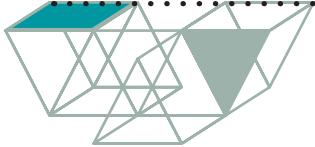
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1790.7	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"						
	50 psf	2086.8	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"						
	70 psf	2382.9	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
(15 feet)	30 psf	2366.6	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	50 psf	2786.1	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	70 psf	3205.6	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
(20 feet)	30 psf	3043.9	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"
	50 psf	3586.7	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	70 psf	4129.6	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
(25 feet)	30 psf	3705.8	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	50 psf	4363.8	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	70 psf	5021.8	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
(30 feet)	30 psf	4608.8	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	50 psf	5431.3	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	6253.8	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
(35 feet)	30 psf	5075.7	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	50 psf	5988.6	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	6901.6	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
(40 feet)	30 psf	5752.9	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	50 psf	6789.3	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	7825.6	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"



Lintel Width = 4"  
Lintel Depth = 20"  
Effective Depth = 17.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

Legend  
1-#5 top = top rebar  
1-#5 bot. = bottom rebar  
#3 @ 7" = use one #3 stirrup @ 7" O/C

\* Check applicability limits table 3 to use this chart

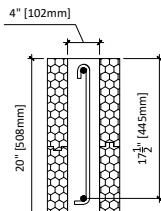


## PART 6.2

## US DESIGN GUIDE

### ILL 4x20 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	1790.7	1-#5 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"			
	50 psf	2086.8	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	2382.9	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"		
(15 feet)	30 psf	2366.6	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"		
	50 psf	2786.1	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"				
	70 psf	3205.6	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"					
(20 feet)	30 psf	3043.9	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"				
	50 psf	3586.7	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"					
	70 psf	4129.6	1-#9 top 1-#9 bot. #3 @ 7"		1-#9 top 1-#9 bot. #3 @ 7"						
(25 feet)	30 psf	3705.8	1-#9 top 1-#9 bot. #3 @ 7"		1-#9 top 1-#9 bot. #3 @ 7"						
	50 psf	4363.8	1-#9 top 1-#9 bot. #3 @ 7"								
	70 psf	5021.8	1-#9 top 1-#9 bot. #3 @ 7"								
(30 feet)	30 psf	4608.8	1-#9 top 1-#9 bot. #3 @ 7"								
	50 psf	5431.3									
	70 psf	6253.8									
(35 feet)	30 psf	5075.7									
	50 psf	5988.6									
	70 psf	6901.6									
(40 feet)	30 psf	5752.9									
	50 psf	6789.3									
	70 psf	7825.6									



Lintel Width = 4"  
Lintel Depth = 20"  
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F'c @ 28 days = 3,000 psi  
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**Legend**  
1-#5 top = top rebar  
1-#5 bot.= bottom rebar  
#3 @ 7" = use one #3 stirrup @ 7" O/C

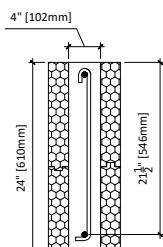
\* Check applicability limits table 3 to use this chart



## PART 6.2

# US DESIGN GUIDE

ILL 4x24 (P. 1/2)



Lintel Width = 4"  
Lintel Depth = 24"  
Effective Depth = 21.5"  
 $F'_c$  @ 28 days = 3,000 psi  
 $F_y$  = 60,000 psi

**Legend**

1-#5 top = top rebar  
1-#5 bot.= bottom rebar  
#3 @ 8.5" = use #3 stirrup @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

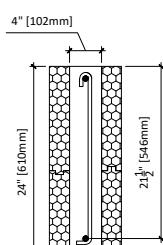


## PART 6.2

## US DESIGN GUIDE

### ILL 4x24 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof									
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft	
(10 feet)	30 psf	1811.3	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	50 psf	2107.4	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
	70 psf	2403.5	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"			
(15 feet)	30 psf	2387.2	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"			
	50 psf	2806.7	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"				
	70 psf	3226.1	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
(20 feet)	30 psf	3064.5	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
	50 psf	3607.3	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"			
	70 psf	4150.1	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"					
(25 feet)	30 psf	3726.4	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"					
	50 psf	4384.4	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
	70 psf	5042.4	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
(30 feet)	30 psf	4629.4	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"					
	50 psf	5451.9	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
	70 psf	6274.4	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
(35 feet)	30 psf	5096.2	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
	50 psf	6009.2	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
	70 psf	6922.2										
(40 feet)	30 psf	5773.5	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
	50 psf	6809.8										
	70 psf	7846.2										



Lintel Width = 4"  
 Lintel Depth = 24"  
 Effective Depth = 21.5"  
 $F'_c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 #3 @ 8.5" = use #3 stirrup @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

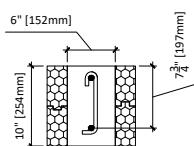


## PART 6.2

## US DESIGN GUIDE

### ILL 6x10 (P. 1/1)

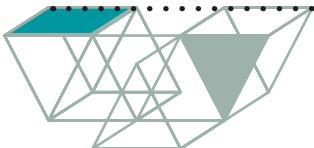
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1784.3	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"	
	50 psf	2080.4	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"			
	70 psf	2376.5	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"				
(15 feet)	30 psf	2360.2	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"				
	50 psf	2779.6	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"					
	70 psf	3199.1	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"					
(20 feet)	30 psf	3037.4	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"				
	50 psf	3580.3	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"				
	70 psf	4123.1	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"					
(25 feet)	30 psf	3699.4	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"				
	50 psf	4357.4	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"				
	70 psf	5015.3	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"				
(30 feet)	30 psf	4602.4	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"				
	50 psf	5424.9	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"				
	70 psf	6247.3	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"				
(35 feet)	30 psf	5069.2	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"				
	50 psf	5982.2	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"				
	70 psf	6895.1	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"						
(40 feet)	30 psf	5746.5	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"				
	50 psf	6782.8	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"						
	70 psf	7819.1									



Lintel Width = 6"  
Lintel Depth = 10"  
Effective Depth = 7.75"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#4 top = top rebar  
1-#4 bot.= bottom rebar  
#3 @ 3.75" = use #3 stirrup @ 3.5" O/C

\* Check applicability limits table 3 to use this chart

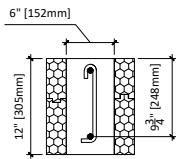


## PART 6.2

## US DESIGN GUIDE

### ILL 6x12 (P. 1/1)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1800.2	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	50 psf	2096.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	
	70 psf	2392.4	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"	
(15 feet)	30 psf	2376.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"	
	50 psf	2795.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"	
	70 psf	3215.0	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"			
(20 feet)	30 psf	3053.4	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"			
	50 psf	3596.2	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#5 top 1#5 bot. #3 @ 4.5"			
	70 psf	4139.0	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#6 top 1#6 bot. #3 @ 4.5"			
(25 feet)	30 psf	3715.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"			
	50 psf	4373.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#5 top 1#5 bot. #3 @ 4.5"			
	70 psf	5031.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#5 top 1#5 bot. #3 @ 4.5"			
(30 feet)	30 psf	4618.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#5 top 1#5 bot. #3 @ 4.5"			
	50 psf	5440.8	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#5 top 1#5 bot. #3 @ 4.5"			
	70 psf	6263.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1#5 top 1#5 bot. #3 @ 4.5"			
(35 feet)	30 psf	5085.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"			
	50 psf	5998.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"			
	70 psf	6911.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"			
(40 feet)	30 psf	5762.4	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"			
	50 psf	6798.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"			
	70 psf	7835.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"			



Lintel Width = 6"  
 Lintel Depth = 12"  
 Effective Depth = 9.75"  
 $F_c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 2-#3 @ 4.5" = use two #3 stirrups @ 4.5" O/C

\* Check applicability limits table 3 to use this chart

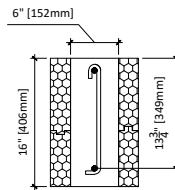


## PART 6.2

## US DESIGN GUIDE

### ILL 6x16 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Story Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1832.0	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"
	50 psf	2128.1	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"
	70 psf	2424.2	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"
(15 feet)	30 psf	2407.9	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"
	50 psf	2827.4	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"
	70 psf	3246.9	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"
(20 feet)	30 psf	3085.2	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"
	50 psf	3628.0	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #3 @ 5.5"
	70 psf	4170.9	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 1-#8 bot. #3 @ 5.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"
(25 feet)	30 psf	3747.1	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 5.5"
	50 psf	4405.1	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"	1-#8 top 1-#8 bot. #3 @ 5.5"
	70 psf	5063.1	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 5.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"
(30 feet)	30 psf	4650.1	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"
	50 psf	5472.6	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 5.5"	
	70 psf	6295.1	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"		
(35 feet)	30 psf	5117.0	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 5.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"
	50 psf	6029.9	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"	
	70 psf	6942.9	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 5.5"			
(40 feet)	30 psf	5794.2	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"		
	50 psf	6830.6	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 5.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 5.5"		
	70 psf	7866.9	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"			



Lintel Width = 6"  
Lintel Depth = 16"  
Effective Depth = 13.75"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#5 top = top rebar  
1-#5 bot.= bottom rebar  
2-#3 @ 6.5" = use two #3 stirrups @ 6.5" O/C

\* Check applicability limits table 3 to use this chart

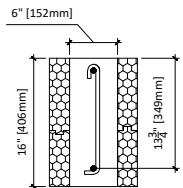


## PART 6.2

## US DESIGN GUIDE

### ILL 6x16 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Story Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	1832.0	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"			
	50 psf	2128.1	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"					
	70 psf	2424.2	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"						
(15 feet)	30 psf	2407.9	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"						
	50 psf	2827.4	1-#8 top 1-#8 bot. #3 @ 5.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"							
	70 psf	3246.9	2-#6 top 2-#6 bot. 2-#3 @ 5.5"								
(20 feet)	30 psf	3085.2	1-#8 top 1-#8 bot. #3 @ 5.5"	2-#6 top 2-#6 bot. 2-#3 @ 5.5"							
	50 psf	3628.0	2-#6 top 2-#6 bot. 2-#3 @ 5.5"								
	70 psf	4170.9									
(25 feet)	30 psf	3747.1									
	50 psf	4405.1									
	70 psf	5063.1									
(30 feet)	30 psf	4650.1									
	50 psf	5472.6									
	70 psf	6295.1									
(35 feet)	30 psf	5117.0									
	50 psf	6029.9									
	70 psf	6942.9									
(40 feet)	30 psf	5794.2									
	50 psf	6830.6									
	70 psf	7866.9									



Lintel Width = 6"  
 Lintel Depth = 16"  
 Effective Depth = 13.75"  
 $F'c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 2-#3 @ 6.5" = use two #3 stirrups @ 6.5" O/C

\* Check applicability limits table 3 to use this chart

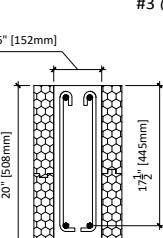
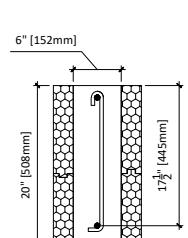


## PART 6.2

## US DESIGN GUIDE

### ILL 6x20 (P. 1/2)

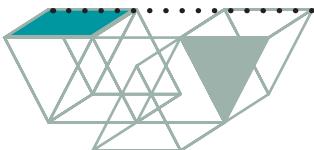
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1863.9	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups
	50 psf	2160.0	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups
	70 psf	2456.1	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"
(15 feet)	30 psf	2439.8	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"
	50 psf	2859.2	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"
	70 psf	3278.7	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
(20 feet)	30 psf	3117.0	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	50 psf	3659.9	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	70 psf	4202.7	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 7"
(25 feet)	30 psf	3779.0	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	50 psf	4436.9	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	70 psf	5094.9	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"
(30 feet)	30 psf	4682.0	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	50 psf	5504.5	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"
	70 psf	6326.9	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 1-#9 bot. #3 @ 7"
(35 feet)	30 psf	5148.8	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 1-#8 bot. #3 @ 7"
	50 psf	6061.8	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	2-#5 top 2-#5 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	6974.7	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. #3 @ 7"
(40 feet)	30 psf	5826.1	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 1-#8 bot. #3 @ 7"
	50 psf	6862.4	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	2-#5 top 2-#5 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. #3 @ 7"
	70 psf	7898.7	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	2-#5 top 2-#5 bot. #3 @ 7"	2-#6 top 2-#6 bot. #3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 7"



Lintel Width = 6"  
Lintel Depth = 20"  
Effective Depth = 17.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#9 top = top rebar  
1-#9 bot.= bottom rebar  
2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

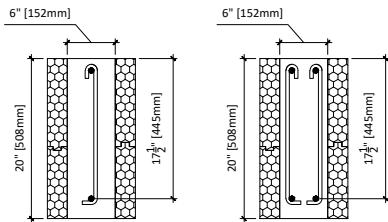


## PART 6.2

## US DESIGN GUIDE

### ILL 6x20 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Story Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	1863.9	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"
	50 psf	2160.0	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	2456.1	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
(15 feet)	30 psf	2439.8	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	50 psf	2859.2	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"			
	70 psf	3278.7	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
(20 feet)	30 psf	3117.0	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. #3 @ 7"	2-#6 top 2-#6 bot. #3 @ 7"	2-#6 top 2-#6 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	50 psf	3659.9	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	4202.7	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
(25 feet)	30 psf	3779.0	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	50 psf	4436.9	2-#6 top 2-#6 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	5094.9	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
(30 feet)	30 psf	4682.0	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	50 psf	5504.5	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	6326.9									
(35 feet)	30 psf	5148.8	1-#9 top 1-#9 bot. #3 @ 7"								
	50 psf	6061.8									
	70 psf	6974.7									
(40 feet)	30 psf	5826.1									
	50 psf	6862.4									
	70 psf	7898.7									



Lintel Width = 6"  
 Lintel Depth = 20"  
 Effective Depth = 17.5"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#9 top = top rebar  
 1-#9 bot.= bottom rebar  
 2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

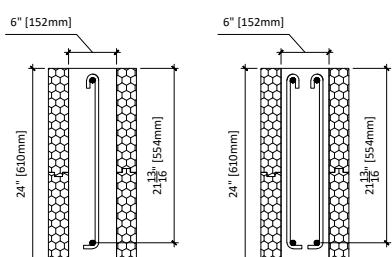


## PART 6.2

## US DESIGN GUIDE

### ILL 6x24 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1895.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	50 psf	2191.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"
	70 psf	2487.9	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"
(15 feet)	30 psf	2471.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	50 psf	2891.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"
	70 psf	3310.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"
(20 feet)	30 psf	3148.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"
	50 psf	3691.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"
	70 psf	4234.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	2-#3 @ 10.5"
(25 feet)	30 psf	3810.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"
	50 psf	4468.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	2-#3 @ 10.5"
	70 psf	5126.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	2-#3 @ 8.5"
(30 feet)	30 psf	4713.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	2-#3 @ 10.5"
	50 psf	5536.3	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	70 psf	6358.7	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
(35 feet)	30 psf	5180.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	2-#3 @ 10.5"
	50 psf	6093.6	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	70 psf	7006.5	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	2-#3 @ 8.5"
(40 feet)	30 psf	5857.9	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	50 psf	6894.2	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	2-#6 top 1-#8 bot. #3 @ 8.5"
	70 psf	7930.5	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 8.5"



Lintel Width = 6"  
 Lintel Depth = 24"  
 Effective Depth = 21.5"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#9 top = top rebar  
 1-#9 bot.= bottom rebar  
 2-#3 @ 10.5" = use two #3 stirrups @ 10.5" O/C

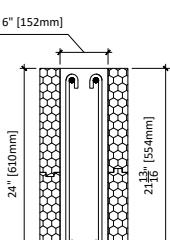
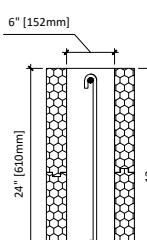
\* Check applicability limits table 3 to use this chart

## PART 6.2

## US DESIGN GUIDE

### ILL 6x24 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	1895.7	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"
	50 psf	2191.8	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"
	70 psf	2487.9	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
(15 feet)	30 psf	2471.6	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
	50 psf	2891.0	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
	70 psf	3310.5	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
(20 feet)	30 psf	3148.8	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
	50 psf	3691.7	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
	70 psf	4234.5	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
(25 feet)	30 psf	3810.8	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
	50 psf	4468.8	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
	70 psf	5126.7	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"
(30 feet)	30 psf	4713.8	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"
	50 psf	5536.3	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"
	70 psf	6358.7	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"
(35 feet)	30 psf	5180.6	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"
	50 psf	6093.6	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"
	70 psf	7006.5	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"
(40 feet)	30 psf	5857.9	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"
	50 psf	6894.2	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"
	70 psf	7930.5	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"



Lintel Width = 6"  
 Lintel Depth = 24"  
 Effective Depth = 21.5"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

Legend  
 1-#9 top = top rebar  
 1-#9 bot. = bottom rebar  
 2-#3 @ 10.5" = use two #3 stirrups @ 10.5" O/C

\* Check applicability limits table 3 to use this chart

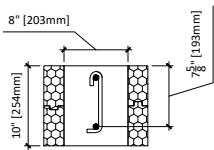


## PART 6.2

## US DESIGN GUIDE

### ILL 8x10 (P. 1/1)

Floor Clear Span feet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof									
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft	12 ft
(10 feet)	30 psf	1873.7	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	2-#5 top 2-#5 bot. 2-#3 @ 3.75'	1-#8 top bot. #3 @ 3.75'	2-#6 top 2-#6 bot. 2-#3 @ 3.75'
	50 psf	2189.5	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	2-#5 top 2-#5 bot. 2-#3 @ 3.75'	1-#8 top 1-#8 bot. #3 @ 3.75'	2-#6 top 2-#6 bot. 2-#3 @ 3.75'
	70 psf	2505.3	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	2-#5 top 2-#5 bot. 2-#3 @ 3.75'	1-#8 top 1-#8 bot. #3 @ 3.75'	2-#6 top 2-#6 bot. #3 @ 3.75'
(15 feet)	30 psf	2476.8	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	2-#5 top 2-#5 bot. 2-#3 @ 3.75'	1-#8 top 1-#8 bot. #3 @ 3.75'	2-#6 top 2-#6 bot. #3 @ 3.75'
	50 psf	2924.2	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	2-#5 top 2-#5 bot. 2-#3 @ 3.75'		
	70 psf	3371.7	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
(20 feet)	30 psf	3186.2	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	2-#5 top 2-#5 bot. 2-#3 @ 3.75'		
	50 psf	3765.2	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
	70 psf	4344.2	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
(25 feet)	30 psf	3879.5	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
	50 psf	4581.4	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
	70 psf	5283.2	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
(30 feet)	30 psf	4825.4	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
	50 psf	5702.7	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
	70 psf	6580.0	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
(35 feet)	30 psf	5314.4	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
	50 psf	6288.2	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
	70 psf	7262.0	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
(40 feet)	30 psf	6023.7	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
	50 psf	7129.2	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			
	70 psf	8234.6	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#5 top 1-#5 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'	1-#6 top 1-#6 bot. #3 @ 3.75'			



Lintel Width = 8"  
 Lintel Depth = 10"  
 Effective Depth = 7.6"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 2-#3 @ 3.75" = use two #3 stirrups @ 3.75" O/C

\* Check applicability limits table 3 to use this chart

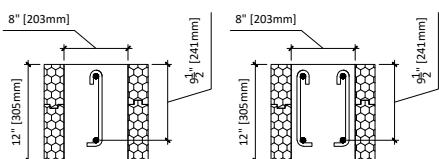


## PART 6.2

## US DESIGN GUIDE

### ILL 8x12 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1894.0	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	50 psf	2209.9	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	70 psf	2525.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	1-#8 top 1-#8 bot. #3 @ 4.5"
(15 feet)	30 psf	2497.2	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	1-#8 top 1-#8 bot. #3 @ 4.5"
	50 psf	2944.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	1-#8 top 1-#8 bot. #3 @ 4.5"
	70 psf	3392.0	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
(20 feet)	30 psf	3206.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	50 psf	3785.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	70 psf	4364.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
(25 feet)	30 psf	3899.9	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	50 psf	4601.8	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	70 psf	5303.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
(30 feet)	30 psf	4845.8	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	50 psf	5723.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	70 psf	6600.4	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
(35 feet)	30 psf	5334.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	50 psf	6308.5	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	70 psf	7282.4	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
(40 feet)	30 psf	6044.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	50 psf	7149.5	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	70 psf	8255.0	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"



Lintel Width = 8"  
 Lintel Depth = 12"  
 Effective Depth = 9.5"  
 $F'c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 2-#3 @ 4.5" = use two #3 stirrups @ 4.5" O/C

\* Check applicability limits table 3 to use this chart

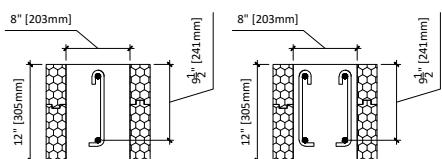


## PART 6.2

## US DESIGN GUIDE

### ILL 8x12 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintel in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	1894.0	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	1-#8 top 1-#8 bot. #3 @ 4.5"	2-#6 top 2-#6 bot. 2-#3 @ 4.5"	1-#9 top 1-#9 bot. #3 @ 4.5"					
	50 psf	2209.9	1-#8 top 1-#8 bot. #3 @ 4.5"	2-#6 top 2-#6 bot. 2-#3 @ 4.5"							
	70 psf	2525.7	2-#6 top 2-#6 bot. 2-#3 @ 4.5"								
(15 feet)	30 psf	2497.2	2-#6 top 2-#6 bot. 2-#3 @ 4.5"								
	50 psf	2944.6									
	70 psf	3392.0									
(20 feet)	30 psf	3206.6									
	50 psf	3785.6									
	70 psf	4364.6									
(25 feet)	30 psf	3899.9									
	50 psf	4601.8									
	70 psf	5303.6									
(30 feet)	30 psf	4845.8									
	50 psf	5723.1									
	70 psf	6600.4									
(35 feet)	30 psf	5334.7									
	50 psf	6308.5									
	70 psf	7282.4									
(40 feet)	30 psf	6044.1									
	50 psf	7149.5									
	70 psf	8255.0									



Lintel Width = 8"  
Lintel Depth = 12"  
Effective Depth = 9.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#5 top = top rebar  
1-#5 bot.= bottom rebar  
2-#3 @ 4.5" = use two #3 stirrups @ 4.5" O/C

\* Check applicability limits table 3 to use this chart

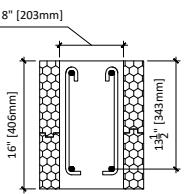
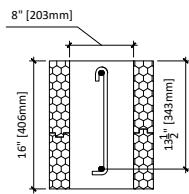


## PART 6.2

## US DESIGN GUIDE

### ILL 8x16 (P. 1/2)

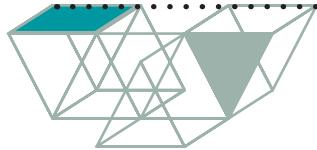
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1934.8	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"			
	50 psf	2250.6	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"
	70 psf	2566.5	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"
(15 feet)	30 psf	2537.9	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"
	50 psf	2985.4	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"
	70 psf	3432.8	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	1-#8 top #3 @ 6.5"
(20 feet)	30 psf	3247.3	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"
	50 psf	3826.3	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"
	70 psf	4405.4	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	1-#8 bot. #3 @ 6.5"
(25 feet)	30 psf	3940.7	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	1-#8 top #3 @ 6.5"
	50 psf	4642.5	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	2-#5 top #3 @ 6.5"
	70 psf	5344.4	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	2-#5 top #3 @ 6.5"
(30 feet)	30 psf	4886.5	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	2-#5 top #3 @ 6.5"
	50 psf	5763.8	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	2-#5 top #3 @ 6.5"
	70 psf	6641.1	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	1-#8 bot. #3 @ 6.5"
(35 feet)	30 psf	5375.5	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top no stirrups	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	2-#5 top #3 @ 6.5"
	50 psf	6349.3	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#8 top #3 @ 6.5"
	70 psf	7323.1	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	2-#5 top #3 @ 6.5"	2-#5 top #3 @ 6.5"
(40 feet)	30 psf	6084.9	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#8 top #3 @ 6.5"
	50 psf	7190.3	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#8 top #3 @ 6.5"
	70 psf	8295.7	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#5 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#6 top #3 @ 6.5"	1-#8 top #3 @ 6.5"



Lintel Width = 8"  
 Lintel Depth = 16"  
 Effective Depth = 13.5"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 2-#3 @ 6.5" = use two #3 stirrups @ 6.5" O/C

\* Check applicability limits table 3 to use this chart

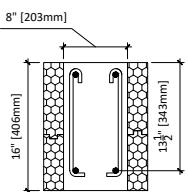
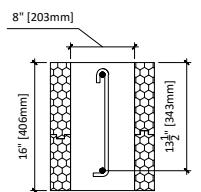


## PART 6.2

## US DESIGN GUIDE

### ILL 8x16 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	1934.8	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	2-#5 top 2-#5 bot. #3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"
	50 psf	2250.6	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"
	70 psf	2566.5	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"
(15 feet)	30 psf	2537.9	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"
	50 psf	2985.4	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#9 top 1-#9 bot. #3 @ 6.5"						
	70 psf	3432.8	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"							
(20 feet)	30 psf	3247.3	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"							
	50 psf	3826.3									
	70 psf	4405.4									
(25 feet)	30 psf	3940.7									
	50 psf	4642.5									
	70 psf	5344.4									
(30 feet)	30 psf	4886.5									
	50 psf	5763.8									
	70 psf	6641.1									
(35 feet)	30 psf	5375.5									
	50 psf	6349.3									
	70 psf	7323.1									
(40 feet)	30 psf	6084.9									
	50 psf	7190.3									
	70 psf	8295.7									



Lintel Width = 8"  
Lintel Depth = 16" mm  
Effective Depth = 13.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#5 top = top rebar  
1-#5 bot. = bottom rebar  
2-#3 @ 6.5" = use two #3 stirrups @ 6.5" O/C

\* Check applicability limits table 3 to use this chart

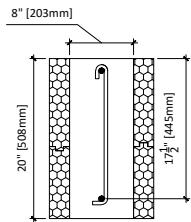


## PART 6.2

## US DESIGN GUIDE

### ILL 8x20 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1975.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	50 psf	2291.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	70 psf	2607.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
(15 feet)	30 psf	2578.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	50 psf	3026.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	70 psf	3473.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
(20 feet)	30 psf	3288.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	50 psf	3867.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	70 psf	4446.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
(25 feet)	30 psf	3981.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	50 psf	4683.3	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	70 psf	5385.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
(30 feet)	30 psf	4927.3	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	50 psf	5804.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1#6+1#5 top 1#6+1#5 bot. 2-#6 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"
	70 psf	6681.9	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
(35 feet)	30 psf	5416.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1#6+1#5 top 1#6+1#5 bot. 2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	50 psf	6390.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 2-#6 top 2-#6 bot. 2-#3 @ 7"
	70 psf	7363.9	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"
(40 feet)	30 psf	6125.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"
	50 psf	7231.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"
	70 psf	8336.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"



Lintel Width = 8"  
 Lintel Depth = 20"  
 Effective Depth = 17.5"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

Legend  
 1-#6 top = top rebar  
 1-#6 bot.= bottom rebar  
 2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

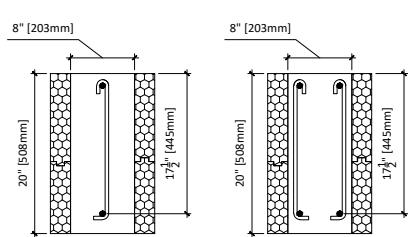


## PART 6.2

## US DESIGN GUIDE

### ILL 8x20 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof Lintel Span - Feet								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	1975.6	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
	50 psf	2291.4	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot.	1-#8+1-#6 top 1-#8+1-#6 bot.	1-#8+1-#6 top 1-#8+1-#6 bot.
	70 psf	2607.2	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot.	2-#8 top 2-#8 bot.	2-#8 top 2-#8 bot.	2-#8 top 2-#8 bot.
(15 feet)	30 psf	2578.7	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot.	1-#8+1-#6 top 1-#8+1-#6 bot.	1-#8+1-#6 top 1-#8+1-#6 bot.	1-#8+1-#6 top 1-#8+1-#6 bot.
	50 psf	3026.1	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot.	2-#8 top 2-#8 bot.	1-#9+1-#8 top 1-#9+1-#8 bot.	1-#9+1-#8 top 1-#9+1-#8 bot.
	70 psf	3473.5	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot.	1-#9+1-#8 top 1-#9+1-#8 bot.	2-#9 top 2-#9 bot.
(20 feet)	30 psf	3288.1	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot.	2-#8 top 2-#8 bot.	1-#9+1-#8 top 1-#9+1-#8 bot.	1-#9+1-#8 top 1-#9+1-#8 bot.
	50 psf	3867.1	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	70 psf	4446.1	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
(25 feet)	30 psf	3981.4	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	50 psf	4683.3	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot.	1-#9+1-#8 top 1-#9+1-#8 bot.	1-#9+1-#8 top 1-#9+1-#8 bot.	1-#9+1-#8 top 1-#9+1-#8 bot.
	70 psf	5385.1	2-#6 top 2-#6 bot. #3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
(30 feet)	30 psf	4927.3	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	50 psf	5804.6	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	70 psf	6681.9	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
(35 feet)	30 psf	5416.2	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	50 psf	6390.1	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	70 psf	7363.9	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
(40 feet)	30 psf	6125.6	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	50 psf	7231.0	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	70 psf	8336.5	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.



Lintel Width = 8"  
Lintel Depth = 20"  
Effective Depth = 17.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#6 top = top rebar  
1-#6 bot.= bottom rebar  
2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C"

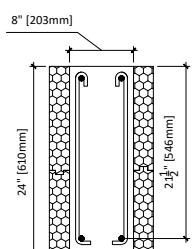
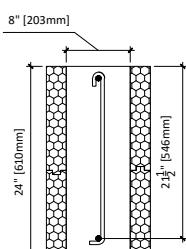
\* Check applicability limits table 3 to use this chart

## PART 6.2

## US DESIGN GUIDE

### ILL 8x24 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Story Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	2016.3	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	50 psf	2332.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	70 psf	2648.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
(15 feet)	30 psf	2619.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	50 psf	3066.9	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	70 psf	3514.3	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
(20 feet)	30 psf	3328.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	50 psf	3907.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	70 psf	4486.9	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot.
(25 feet)	30 psf	4022.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups
	50 psf	4724.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot.
	70 psf	5425.9	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot.	2-#3 @ 10.5"
(30 feet)	30 psf	4968.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot.
	50 psf	5845.3	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#8 top 1-#8 bot.
	70 psf	6722.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot.	1-#6+1-#5 top 1-#6+1-#5 bot.
(35 feet)	30 psf	5457.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot.	2-#3 @ 10.5"
	50 psf	6430.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot.	1-#8 top 1-#8 bot.	1-#8 top 1-#8 bot.
	70 psf	7404.6	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot.	1-#8 top 1-#8 bot.	2-#6 top 2-#6 bot.
(40 feet)	30 psf	6166.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	2-#5 top 2-#5 bot.	1-#8 top 1-#8 bot.
	50 psf	7271.8	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot.	1-#8 top 1-#8 bot.	2-#6 top 2-#6 bot.
	70 psf	8377.2	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot.	2-#6 top 2-#6 bot.	1-#8+1-#5 top 1-#8+1-#5 bot.



Lintel Width = 8"  
 Lintel Depth = 24"  
 Effective Depth = 21.5"  
 $F_c' @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#6 top = top rebar  
 1-#6 bot.= bottom rebar  
 2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

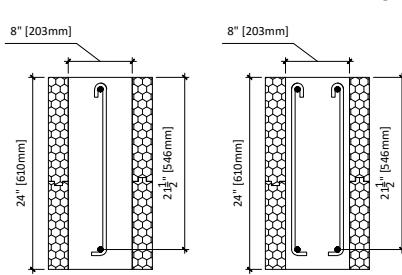


## PART 6.2

## US DESIGN GUIDE

### ILL 8x24 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Story Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	2016.3	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"
	50 psf	2332.1	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"
	70 psf	2648.0	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 bot. #3 @ 10.5"	1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"
(15 feet)	30 psf	2619.4	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"
	50 psf	3066.9	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"
	70 psf	3514.3	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"
(20 feet)	30 psf	3328.8	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"
	50 psf	3907.8	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"
	70 psf	4486.9	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.
(25 feet)	30 psf	4022.2	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"
	50 psf	4724.0	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"
	70 psf	5425.9	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
(30 feet)	30 psf	4968.0	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.
	50 psf	5845.3	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	70 psf	6722.7	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#3 @ 8.5"
(35 feet)	30 psf	5457.0	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	50 psf	6430.8	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#3 @ 8.5"
	70 psf	7404.6	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#3 @ 8.5"
(40 feet)	30 psf	6166.4	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#3 @ 8.5"
	50 psf	7271.8	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#3 @ 8.5"
	70 psf	8377.2	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"	2-#3 @ 8.5"	2-#3 @ 8.5"	2-#3 @ 8.5"



Lintel Width = 8"  
Lintel Depth = 24"  
Effective Depth = 21.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

Legend  
1-#6 top = top rebar  
1-#6 bot. = bottom rebar  
2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

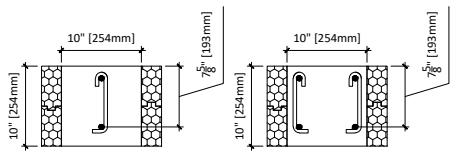
\* Check applicability limits table 3 to use this chart

## PART 6.2

## US DESIGN GUIDE

### ILL 10x10 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1899.1	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"	1# 8 top 1-#8 bot. #3 @ 3.75"
	50 psf	2215.0	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"	1# 8 top 1-#8 bot. #3 @ 3.75"	
	70 psf	2530.8	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. #3 @ 3.75"	1# 8 top 1-#8 bot. #3 @ 3.75"		2-#6 top 2-#6 bot.
(15 feet)	30 psf	2502.3	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"	1# 8 top 1-#8 bot. #3 @ 3.75"	2-#6 top 2-#6 bot.
	50 psf	2949.7	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"	1# 8 top 1-#8 bot. #3 @ 3.75"		2-#3 @ 3.75"
	70 psf	3397.1	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"	2-#6 top 2-#6 bot. 2-#3 @ 3.75"		
(20 feet)	30 psf	3211.7	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"	2-#6 top 2-#6 bot. 2-#3 @ 3.75"		
	50 psf	3790.7	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"	1# 8 top 1-#8 bot. #3 @ 3.75"		
	70 psf	4369.7	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"				
(25 feet)	30 psf	3905.0	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"	1# 8 top 1-#8 bot. #3 @ 3.75"		
	50 psf	4606.9	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"			
	70 psf	5308.7	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"					
(30 feet)	30 psf	4850.9	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"			
	50 psf	5728.2	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	70 psf	6605.5	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
(35 feet)	30 psf	5339.8	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"				
	50 psf	6313.6	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"						
	70 psf	7287.5	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"						
(40 feet)	30 psf	6049.2	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	50 psf	7154.6	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"						
	70 psf	8260.0	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"						



Lintel Width = 10"  
 Lintel Depth = 10"  
 Effective Depth = 7.6"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 2-#3 @ 3.75" = use two #3 stirrups @ 3.75" O/C

\* Check applicability limits table 3 to use this chart

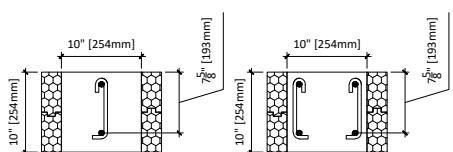


## PART 6.2

## US DESIGN GUIDE

### ILL 10x10 (P. 2/2)

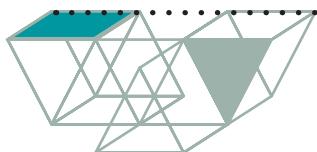
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	1899.1	2-#6 top 2-#6 bot. 2-#3 @ 3.75"	1-#9 top 1-#9 bot. #3 @ 3.75"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 3.75"						
	50 psf	2215.0	1-#9 top 1-#9 bot. #3 @ 3.75"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 3.75"							
	70 psf	2530.8	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 3.75"								
(15 feet)	30 psf	2502.3	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 3.75"								
	50 psf	2949.7									
	70 psf	3397.1									
(20 feet)	30 psf	3211.7									
	50 psf	3790.7									
	70 psf	4369.7									
(25 feet)	30 psf	3905.0									
	50 psf	4606.9									
	70 psf	5308.7									
(30 feet)	30 psf	4850.9									
	50 psf	5728.2									
	70 psf	6605.5									
(35 feet)	30 psf	5339.8									
	50 psf	6313.6									
	70 psf	7287.5									
(40 feet)	30 psf	6049.2									
	50 psf	7154.6									
	70 psf	8260.0									



Lintel Width = 10"  
 Lintel Depth = 10"  
 Effective Depth = 7.6"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 2-#3 @ 3.75" = use two #3 stirrups @ 3.75" O/C

\* Check applicability limits table 3 to use this chart

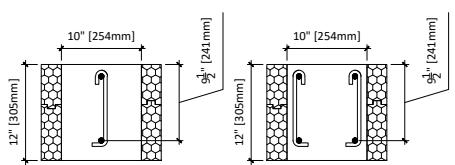


## PART 6.2

## US DESIGN GUIDE

### ILL 10x12 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Story Wood Frame + Light Frame Roof								
			Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1924.6	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"			
	50 psf	2240.4	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"
	70 psf	2556.3	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	1#8 top 1#8 bot. #3 @ 4.5"
(15 feet)	30 psf	2527.7	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	1#8 top 1#8 bot. #3 @ 4.5"
	50 psf	2975.2	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	1#8 top 1#8 bot. #3 @ 4.5"	2-#6 top 2-#6 bot.
	70 psf	3422.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	1#8 top 1#8 bot. #3 @ 4.5"	1#9 top 1#9 bot. #3 @ 4.5"
(20 feet)	30 psf	3237.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	1#8 top 1#8 bot. #3 @ 4.5"	2-#6 top 2-#6 bot.
	50 psf	3816.2	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	1#8 top 1#8 bot. #3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"
	70 psf	4395.2	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	2-#3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"
(25 feet)	30 psf	3930.5	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	1#8 top 1#8 bot. #3 @ 4.5"	2-#6 top 2-#6 bot.
	50 psf	4632.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	1#8 top 1#8 bot. #3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"
	70 psf	5334.2	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	2-#3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"
(30 feet)	30 psf	4876.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	1#8 top 1#8 bot. #3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"
	50 psf	5753.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	2-#3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"
	70 psf	6631.0	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	2-#3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"
(35 feet)	30 psf	5365.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	2-#3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"
	50 psf	6339.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	2-#3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"
	70 psf	7312.9	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	2-#3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"
(40 feet)	50 psf	7180.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	2-#3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"
	70 psf	8285.5	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. #3 @ 4.5"	2-#3 @ 4.5"	2-#6 top 2-#6 bot.	2-#3 @ 4.5"



Lintel Width = 10"  
 Lintel Depth = 12"  
 Effective Depth = 9.5"  
 $F_c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ ps}$

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 2-#3 @ 4.5" = use two #3 stirrups @ 4.5" O/C

\* Check applicability limits table 3 to use this chart

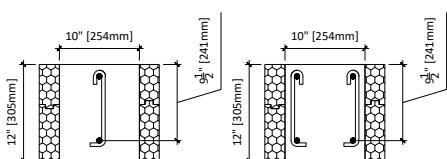


## PART 6.2

## US DESIGN GUIDE

### ILL 10x12 (P. 2/2)

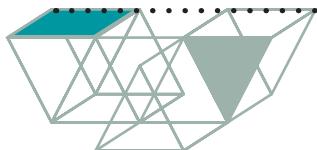
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	1924.6	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	1#8 top 1-#8 bot. #3 @ 4.5"	2-#6 top 2-#6 bot. 2-#3 @ 4.5"	1-#9 top 1-#9 bot. #3 @ 4.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 4.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 4.5"	2-#8 top 2-#8 bot. 2-#3 @ 4.5"		
	50 psf	2240.4	1#8 top 1-#8 bot. #3 @ 4.5"	2-#6 top 2-#6 bot. 2-#3 @ 4.5"	1-#9 top 1-#9 bot. #3 @ 4.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 4.5"					
	70 psf	2556.3	2-#6 top 2-#6 bot. 2-#3 @ 4.5"	1-#9 top 1-#9 bot. #3 @ 4.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 4.5"		2-#8 top 2-#8 bot. 2-#3 @ 4.5"				
(15 feet)	30 psf	2527.7	2-#6 top 2-#6 bot. 2-#3 @ 4.5"	1-#9 top 1-#9 bot. #3 @ 4.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 4.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 4.5"	2-#8 top 2-#8 bot. 2-#3 @ 4.5"				
	50 psf	2975.2	1-#9 top 1-#9 bot. #3 @ 4.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 4.5"							
	70 psf	3422.6									
(20 feet)	30 psf	3237.1	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 4.5"								
	50 psf	3816.2									
	70 psf	4395.2									
(25 feet)	30 psf	3930.5									
	50 psf	4632.3									
	70 psf	5334.2									
(30 feet)	30 psf	4876.3									
	50 psf	5753.6									
	70 psf	6631.0									
(35 feet)	30 psf	5365.3									
	50 psf	6339.1									
	70 psf	7312.9									
(40 feet)	30 psf	6074.7									
	50 psf	7180.1									
	70 psf	8285.5									



Lintel Width = 10"  
 Lintel Depth = 12"  
 Effective Depth = 9.5"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 2-#3 @ 4.5" = use two #3 stirrups @ 4.5" O/C

\* Check applicability limits table 3 to use this chart

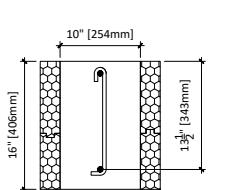


## PART 6.2

## US DESIGN GUIDE

### ILL 10x16 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	1975.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"
	50 psf	2291.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"
	70 psf	2607.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"
(15 feet)	30 psf	2578.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"
	50 psf	3026.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot.
	70 psf	3473.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"
(20 feet)	30 psf	3288.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	2-#5 top 2-#5 bot.
	50 psf	3867.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"
	70 psf	4446.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"
(25 feet)	30 psf	3981.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot.
	50 psf	4683.3	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"
	70 psf	5385.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot.
(30 feet)	30 psf	4927.3	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"
	50 psf	5804.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot.
	70 psf	6681.9	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot.	2-#3 @ 6.5"
(35 feet)	30 psf	5416.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot.
	50 psf	6390.1	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot.	2-#3 @ 6.5"
	70 psf	7363.9	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot.	2-#3 @ 6.5"
(40 feet)	30 psf	6125.6	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot.
	50 psf	7231.0	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot.	2-#3 @ 6.5"
	70 psf	8336.5	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot.	2-#3 @ 6.5"



Lintel Width = 10"  
 Lintel Depth = 16"  
 Effective Depth = 13.5"  
 $F_c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#6 top = top rebar  
 1-#6 bot.= bottom rebar  
 2-#3 @ 6.5" = use two #3 stirrups @ 6.5" O/C

\* Check applicability limits table 3 to use this chart

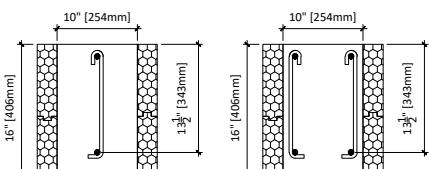


## PART 6.2

## US DESIGN GUIDE

### ILL 10x16 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	1975.6	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	1-#8 top 2-#6 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#9 top 1-#9 bot. #3 @ 6.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"
	50 psf	2291.4	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#9 top 1-#9 bot. #3 @ 6.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 6.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 6.5"
	70 psf	2607.2	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#9 top 1-#9 bot. #3 @ 6.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 6.5"	2-#9 top 2-#9 bot.
(15 feet)	30 psf	2578.7	2-#5 top 2-#5 bot. 2-#3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#9 top 1-#9 bot. #3 @ 6.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 6.5"	2-#9 top 2-#9 bot.
	50 psf	3026.1	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#9 top 1-#9 bot. #3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 6.5"	2-#9 top 2-#9 bot.
	70 psf	3473.5	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#9 top 1-#9 bot. #3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"					
(20 feet)	30 psf	3288.1	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#9 top 1-#9 bot. #3 @ 6.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	2-#8 top 2-#8 bot. 2-#3 @ 6.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 6.5"	2-#9 top 2-#9 bot.
	50 psf	3867.1	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#9 top 1-#9 bot. #3 @ 6.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 6.5"						
	70 psf	4446.1	1-#9 top 1-#9 bot. #3 @ 6.5"								
(25 feet)	30 psf	3981.4	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#9 top 1-#9 bot. #3 @ 6.5"							
	50 psf	4683.3	1-#9 top 1-#9 bot. #3 @ 6.5"								
	70 psf	5385.1									
	30 psf	4927.3									
(30 feet)	50 psf	5804.6									
	70 psf	6681.9									
	30 psf	5416.2									
(35 feet)	50 psf	6390.1									
	70 psf	7363.9									
	30 psf	6125.6									
(40 feet)	50 psf	7231.0									
	70 psf	8336.5									



Lintel Width = 10"  
 Lintel Depth = 16"  
 Effective Depth = 13.5"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#6 top = top rebar  
 1-#6 bot. = bottom rebar  
 2-#3 @ 6.5" = use two #3 stirrups @ 6.5" O/C

\* Check applicability limits table 3 to use this chart

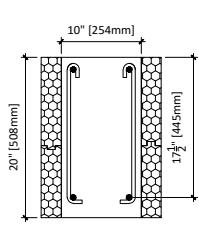
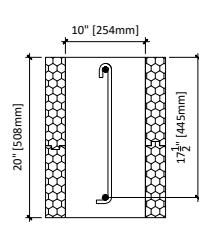


## PART 6.2

## US DESIGN GUIDE

### ILL 10x20 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	2026.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	50 psf	2342.3	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	70 psf	2658.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
(15 feet)	30 psf	2629.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	50 psf	3077.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	70 psf	3524.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
(20 feet)	30 psf	3339.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	50 psf	3918.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	70 psf	4497.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
(25 feet)	30 psf	4032.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	50 psf	4734.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	70 psf	5436.1	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
(30 feet)	30 psf	4978.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	50 psf	5855.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"
	70 psf	6732.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"
(35 feet)	30 psf	5467.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"
	50 psf	6441.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"
	70 psf	7414.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 7"
(40 feet)	30 psf	6176.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"
	50 psf	7282.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	8387.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"



Lintel Width = 10"  
 Lintel Depth = 20"  
 Effective Depth = 17.5"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

#### Legend

1-#6 top = top rebar  
 1-#6 bot.= bottom rebar  
 2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

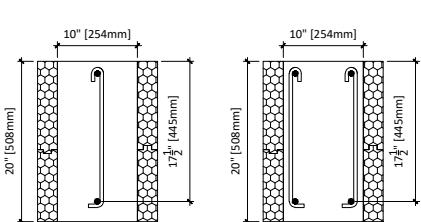


## PART 6.2

## US DESIGN GUIDE

### ILL 10x20 (P. 2/2)

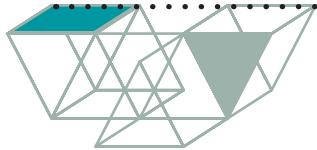
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	2026.5	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 2-#5 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
	50 psf	2342.3	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"
	70 psf	2658.2	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
(15 feet)	30 psf	2629.6	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
	50 psf	3077.0	2-#5 top 2-#5 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
	70 psf	3524.5	2-#5 top 2-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"
(20 feet)	30 psf	3339.0	2-#5 top 2-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"
	50 psf	3918.0	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"
	70 psf	4497.1	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"
(25 feet)	30 psf	4032.4	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"
	50 psf	4734.2	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"
	70 psf	5436.1	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"
(30 feet)	30 psf	4978.2	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"
	50 psf	5855.5	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"
	70 psf	6732.8	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"					
(35 feet)	30 psf	5467.2	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"
	50 psf	6441.0	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"					
	70 psf	7414.8	2-#8 top 2-#8 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"						
(40 feet)	30 psf	6176.6	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"	2-#9 top 2-#9 bot. #3 @ 7"
	50 psf	7282.0	2-#8 top 2-#8 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"						
	70 psf	8387.4	2-#8 top 2-#8 bot. #3 @ 7"	2-#8 top 2-#8 bot. #3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 7"						



Lintel Width = 10"  
 Lintel Depth = 20"  
 Effective Depth = 17.5"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#6 top = top rebar  
 1-#6 bot. = bottom rebar  
 2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

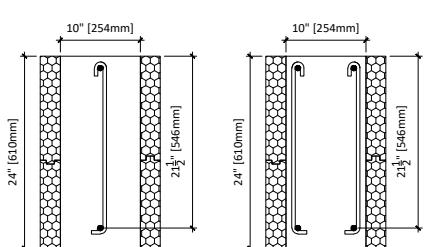


## PART 6.2

## US DESIGN GUIDE

### ILL 10x24 (P. 1/2)

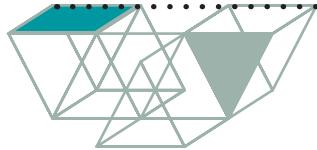
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Story Wood Frame + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	2077.4	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"
	50 psf	2393.3	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"
	70 psf	2709.1	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
(15 feet)	30 psf	2680.6	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"
	50 psf	3128.0	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
	70 psf	3575.4	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
(20 feet)	30 psf	3389.9	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"
	50 psf	3969.0	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
	70 psf	4548.0	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
(25 feet)	30 psf	4083.3	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
	50 psf	4785.2	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
	70 psf	5487.0	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
(30 feet)	30 psf	5029.2	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
	50 psf	5906.5	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"
	70 psf	6783.8	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"
(35 feet)	30 psf	5518.1	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
	50 psf	6491.9	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"
	70 psf	7465.8	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"
(40 feet)	30 psf	6227.5	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"
	50 psf	7332.9	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"
	70 psf	8438.3	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 10.5"



Lintel Width = 10"  
 Lintel Depth = 24"  
 Effective Depth = 21.5"  
 $F'c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 2-#6 top = top rebar  
 2-#6 bot.= bottom rebar  
 2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

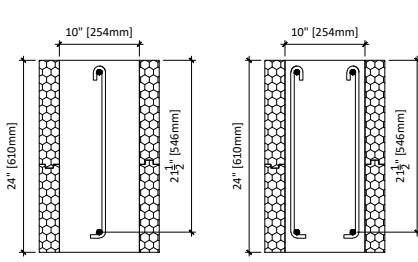


## PART 6.2

## US DESIGN GUIDE

### ILL 10x24 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey Wood Frame + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	2077.4	2-#5 top 2-#5 bot. no stirrups 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"
	50 psf	2393.3	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"
	70 psf	2709.1	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"
(15 feet)	30 psf	2680.6	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"
	50 psf	3128.0	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"
	70 psf	3575.4	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"
(20 feet)	30 psf	3389.9	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"
	50 psf	3969.0	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 10.5"
	70 psf	4548.0	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"
(25 feet)	30 psf	4083.3	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 10.5"
	50 psf	4785.2	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
	70 psf	5487.0	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"
(30 feet)	30 psf	5029.2	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
	50 psf	5906.5	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"
	70 psf	6783.8	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"
(35 feet)	30 psf	5518.1	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 10.5"	1-#9 top 1-#9 bot. #3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"
	50 psf	6491.9	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"
	70 psf	7465.8	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"
(40 feet)	30 psf	6227.5	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 10.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"
	50 psf	7332.9	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. #3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"
	70 psf	8438.3	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. #3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"	2-#9 top 2-#9 bot. #3 @ 8.5"



Lintel Width = 10"  
 Lintel Depth = 24"  
 Effective Depth = 21.5"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 2-#6 top = top rebar  
 2-#6 bot.= bottom rebar  
 2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

**Tables for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof**

ILH 4x10

ILH 4x12

ILH 4x16

ILH 4x20

ILH 4x24

ILH 6x10

ILH 6x12

ILH 6x16

ILH 6x20

ILH 6x24

ILH 8x10

ILH 8x12

ILH 8x16

ILH 8x20

ILH 8x24

ILH 10x10

ILH 10x12

ILH 10x16

ILH 10x20

ILH 10x24

**Disclaimer**

Alleguard assumes no liability whatsoever with regards to the correct use of the lintel tables. It is the user's responsibility to assess a specific situation and determine if the limitations and assumptions given in sections 2.2 & 2.3 are satisfied in order to use the tables. It is also the user's responsibility to determine the correct table to use for the specific lintel being considered.

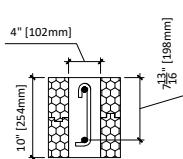


## PART 6.2

## US DESIGN GUIDE

### ILH 4x10 (P. 1/1)

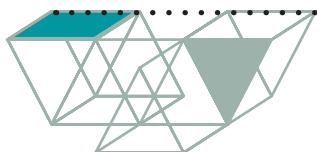
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet			
			3 ft	4 ft	5 ft	6 ft
10 feet	30 psf	2393.9	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	
	50 psf	2709.7	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"		
	70 psf	3025.5	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"		
15 feet	30 psf	2997.0	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"		
	50 psf	3444.4	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"		
	70 psf	3891.9	1-#4 top 1-#4 bot. #3 @ 3.75"			
20 feet	30 psf	3706.4	1-#4 top 1-#4 bot. #3 @ 3.75"			
	50 psf	4285.4	1-#4 top 1-#4 bot. #3 @ 3.75"			
	70 psf	4864.4	1-#4 top 1-#4 bot. #3 @ 3.75"			
25 feet	30 psf	4399.7	1-#4 top 1-#4 bot. #3 @ 3.75"			
	50 psf	5101.6				
	70 psf	5803.4				
30 feet	30 psf	5345.6				
	50 psf	6222.9				
	70 psf	7100.2				
35 feet	30 psf	5834.6				
	50 psf	6808.4				
	70 psf	7782.2				
40 feet	30 psf	6544.0				
	50 psf	7649.4				
	70 psf	8754.8				



Lintel Width = 4"  
Lintel Depth = 10"  
Effective Depth = 7.8"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

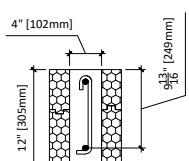
**Legend**  
1-#4 top = top rebar  
1-#4 bot.= bottom rebar  
#3 @ 3.75" = use one #3 stirrup @ 3.75" O/C

\* Check applicability limits table 3 to use this chart



## ILH 4x12 (P. 1/1)

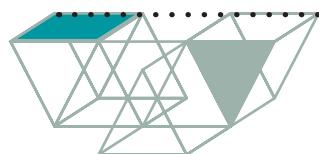
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet			
			3 ft	4 ft	5 ft	6 ft
10 feet	30 psf	2403.9	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"
	50 psf	2719.8	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"
	70 psf	3035.6	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	
15 feet	30 psf	3007.1	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	
	50 psf	3454.5	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	
	70 psf	3901.9	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"		
20 feet	30 psf	3716.5	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"		
	50 psf	4295.5	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"		
	70 psf	4874.5	1-#4 top 1-#4 bot. #3 @ 4.5"			
25 feet	30 psf	4409.8	1-#4 top 1-#4 bot. #3 @ 4.5"	1-#4 top 1-#4 bot. #3 @ 4.5"		
	50 psf	5111.7	1-#4 top 1-#4 bot. #3 @ 4.5"			
	70 psf	5813.5	1-#4 top 1-#4 bot. #3 @ 4.5"			
30 feet	30 psf	5355.7	1-#4 top 1-#4 bot. #3 @ 4.5"			
	50 psf	6233.0	1-#4 top 1-#4 bot. #3 @ 4.5"			
	70 psf	7110.3				
35 feet	30 psf	5844.6	1-#4 top 1-#4 bot. #3 @ 4.5"			
	50 psf	6818.5				
	70 psf	7792.3				
40 feet	30 psf	6554.0	1-#4 top 1-#4 bot. #3 @ 4.5"			
	50 psf	7659.4				
	70 psf	8764.9				



Lintel Width = 4"  
Lintel Depth = 12"  
Effective Depth = 9.8"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#4 top = top rebar  
1-#4 bot.= bottom rebar  
#3 @ 4.5" = use one #3 stirrup @ 4.5" O/C

\* Check applicability limits table 3 to use this chart

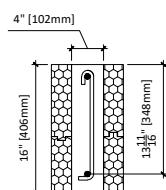


## PART 6.2

## US DESIGN GUIDE

### ILH 4x16 (P. 1/1)

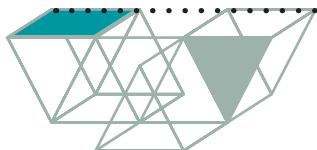
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof						
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft
10 feet	30 psf	2423.9	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"
	50 psf	2739.7	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"
	70 psf	3055.6	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"		
15 feet	30 psf	3027.0	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"		
	50 psf	3474.4	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"			
	70 psf	3921.9	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"			
20 feet	30 psf	3736.4	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"			
	50 psf	4315.4	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"			
	70 psf	4894.5	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"			
25 feet	30 psf	4429.8	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"			
	50 psf	5131.6	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"			
	70 psf	5833.5	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"				
30 feet	30 psf	5375.6	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"				
	50 psf	6252.9	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"				
	70 psf	7130.2	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"				
35 feet	30 psf	5864.6	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"				
	50 psf	6838.4	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"				
	70 psf	7812.2	1-#4 top 1-#4 bot. #3 @ 6.5"						
40 feet	30 psf	6574.0	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"	1-#4 top 1-#4 bot. #3 @ 6.5"				
	50 psf	7679.4	1-#4 top 1-#4 bot. #3 @ 6.5"						
	70 psf	8784.8	1-#4 top 1-#4 bot. #3 @ 6.5"						



Lintel Width = 4"  
 Lintel Depth = 16"  
 Effective Depth = 13.75"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#4 top = top rebar  
 1-#4 bot. = bottom rebar  
 #3 @ 6.5" = use one #3 stirrup @ 6.5" O/C

\* Check applicability limits table 3 to use this chart

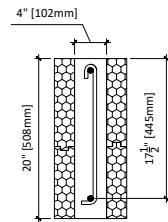


## PART 6.2

## US DESIGN GUIDE

### ILH 4x20 (P. 1/2)

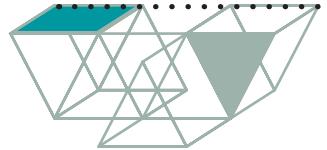
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	2444.4	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	50 psf	2760.2	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"
	70 psf	3076.1	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"
(15 feet)	30 psf	3047.5	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"
	50 psf	3495.0	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	70 psf	3942.4	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
(20 feet)	30 psf	3756.9	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	50 psf	4336.0	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	70 psf	4915.0	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
(25 feet)	30 psf	4450.3	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	50 psf	5152.1	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	5854.0	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
(30 feet)	30 psf	5396.1	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	50 psf	6273.4	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	7150.8	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"			
(35 feet)	30 psf	5885.1	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"			
	50 psf	6858.9	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"			
	70 psf	7832.7	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"			
(40 feet)	30 psf	6594.5	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"			
	50 psf	7699.9	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	8805.3	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"			



Lintel Width = 4"  
 Lintel Depth = 20"  
 Effective Depth = 17.5"  
 $F_c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#4 top = top rebar  
 1-#4 bot.= bottom rebar  
 $\#3 @ 7"$  = use #3 stirrup @ 7" O/C

\* Check applicability limits table 3 to use this chart

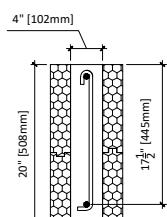


## PART 6.2

## US DESIGN GUIDE

### ILH 4x20 (P. 2/2)

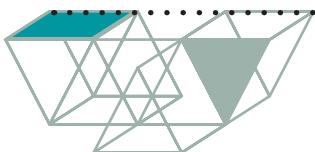
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet							
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft
(10 feet)	30 psf	2444.4	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"		
	50 psf	2760.2	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"		
	70 psf	3076.1	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"				
(15 feet)	30 psf	3047.5	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"		
	50 psf	3495.0	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"				
	70 psf	3942.4	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"						
(20 feet)	30 psf	3756.9	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"				
	50 psf	4336.0	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"					
	70 psf	4915.0	1-#9 top 1-#9 bot. #3 @ 7"							
(25 feet)	30 psf	4450.3	1-#9 top 1-#9 bot. #3 @ 7"							
	50 psf	5152.1	1-#9 top 1-#9 bot. #3 @ 7"							
	70 psf	5854.0								
(30 feet)	30 psf	5396.1								
	50 psf	6273.4								
	70 psf	7150.8								
(35 feet)	30 psf	5885.1								
	50 psf	6858.9								
	70 psf	7832.7								
(40 feet)	30 psf	6594.5								
	50 psf	7699.9								
	70 psf	8805.3								



Lintel Width = 4"  
Lintel Depth = 20"  
Effective Depth = 17.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#4 top = top rebar  
1-#4 bot.= bottom rebar  
#3 @ 7" = use #3 stirrup @ 7" O/C

\* Check applicability limits table 3 to use this chart

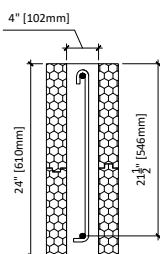


## PART 6.2

## US DESIGN GUIDE

### ILH 4x24 (P. 1/2)

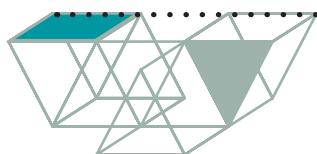
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	2464.2	1-#5 top 1-#5 bot. No stirrups	1-#5 top 1-#5 bot. No stirrups	1-#5 top 1-#5 bot. #3 @ 10.5"						
	50 psf	2780.0	1-#5 top 1-#5 bot. No stirrups	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"
	70 psf	3095.8	1-#5 top 1-#5 bot. No stirrups	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"
(15 feet)	30 psf	3067.3	1-#5 top 1-#5 bot. No stirrups	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"
	50 psf	3514.7	1-#5 top 1-#5 bot. No stirrups	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	70 psf	3962.1	1-#5 top 1-#5 bot. No stirrups	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
(20 feet)	30 psf	3776.7	1-#5 top 1-#5 bot. No stirrups	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	50 psf	4355.7	1-#5 top 1-#5 bot. No stirrups	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	70 psf	4934.7	1-#5 top 1-#5 bot. No stirrups	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
(25 feet)	30 psf	4470.0	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	50 psf	5171.9	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	70 psf	5873.7	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
(30 feet)	30 psf	5415.9	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	50 psf	6293.2	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"
	70 psf	7170.5	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
(35 feet)	30 psf	5904.8	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	50 psf	6878.7	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	70 psf	7852.5	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"			
(40 feet)	30 psf	6614.2	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"			
	50 psf	7719.6	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"			
	70 psf	8825.1	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 10.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"			



Lintel Width = 4"  
 Lintel Depth = 24"  
 Effective Depth = 21.5"  
 $F_c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#4 top = top rebar  
 1-#4 bot.= bottom rebar  
 #3 @ 8.5" = use #3 stirrup @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

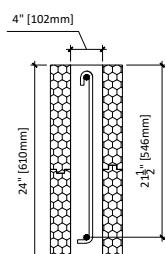


## PART 6.2

## US DESIGN GUIDE

### ILH 4x24 (P. 2/2)

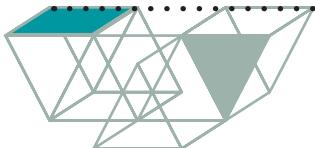
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof							
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft
(10 feet)	30 psf	2464.2	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"				
	50 psf	2780.0	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"				
	70 psf	3095.8	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"		
(15 feet)	30 psf	3067.3	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"		
	50 psf	3514.7	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"		
	70 psf	3962.1	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"		
(20 feet)	30 psf	3776.7	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"		
	50 psf	4355.7	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"		
	70 psf	4934.7	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"		
(25 feet)	30 psf	4470.0	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"		
	50 psf	5171.9	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"					
	70 psf	5873.7	1-#9 top 1-#9 bot. #3 @ 8.5"							
(30 feet)	30 psf	5415.9	1-#9 top 1-#9 bot. #3 @ 8.5"							
	50 psf	6293.2								
	70 psf	7170.5								
(35 feet)	30 psf	5904.8	1-#9 top 1-#9 bot. #3 @ 8.5"							
	50 psf	6878.7								
	70 psf	7852.5								
(40 feet)	30 psf	6614.2								
	50 psf	7719.6								
	70 psf	8825.1								



Lintel Width = 4"  
Lintel Depth = 24"  
Effective Depth = 21.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

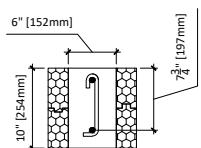
**Legend**  
1-#4 top = top rebar  
1-#4 bot.= bottom rebar  
#3 @ 8.5" = use #3 stirrup @ 8.5" O/C

\* Check applicability limits table 3 to use this chart



## ILH 6x10 (P. 1/1)

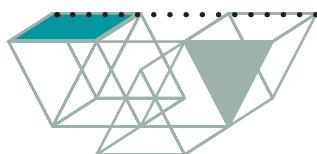
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	2798.7	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"					
	50 psf	3114.6	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"					
	70 psf	3430.4	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"					
(15 feet)	30 psf	3401.9	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"						
	50 psf	3849.3	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"						
	70 psf	4296.7	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"							
(20 feet)	30 psf	4111.2	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"							
	50 psf	4690.3	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"							
	70 psf	5269.3	1-#4 top 1-#4 bot. #3 @ 3.75"								
(25 feet)	30 psf	4804.6	1-#4 top 1-#4 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"							
	50 psf	5506.4	1-#4 top 1-#4 bot. #3 @ 3.75"								
	70 psf	6208.3	1-#4 top 1-#4 bot. #3 @ 3.75"								
(30 feet)	30 psf	5750.4	1-#4 top 1-#4 bot. #3 @ 3.75"								
	50 psf	6627.8	1-#4 top 1-#4 bot. #3 @ 3.75"								
	70 psf	7505.1									
(35 feet)	30 psf	6239.4	1-#4 top 1-#4 bot. #3 @ 3.75"								
	50 psf	7213.2	1-#5 top 1-#5 bot. #3 @ 3.75"								
	70 psf	8187.0									
(40 feet)	30 psf	6948.8	1-#5 top 1-#5 bot. #3 @ 3.75"								
	50 psf	8054.2									
	70 psf	9159.6									



Lintel Width = 6"  
 Lintel Depth = 10"  
 Effective Depth = 7.8"  
 $F'c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 #3 @ 3.75" = use one #3 stirrup @ 3.75" O/C

\* Check applicability limits table 3 to use this chart

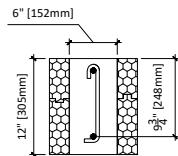


## PART 6.2

## US DESIGN GUIDE

### ILH 6x12 (P. 1/1)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	2814.0	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"			
	50 psf	3129.8	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	70 psf	3445.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
(15 feet)	30 psf	3417.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	50 psf	3864.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	70 psf	4312.0	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
(20 feet)	30 psf	4126.5	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	50 psf	4705.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	70 psf	5284.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
(25 feet)	30 psf	4819.9	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	50 psf	5521.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	70 psf	6223.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
(30 feet)	30 psf	5765.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	50 psf	6643.0	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	70 psf	7520.4	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
(35 feet)	30 psf	6254.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	50 psf	7228.5	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	70 psf	8202.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
(40 feet)	30 psf	6964.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	50 psf	8069.5	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	70 psf	9174.9	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				



Lintel Width = 6"  
Lintel Depth = 12"  
Effective Depth = 9.75"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#5 top = top rebar  
1-#5 bot.= bottom rebar  
#3 @ 4.5" = use one #3 stirrup @ 4.5" O/C

\* Check applicability limits table 3 to use this chart

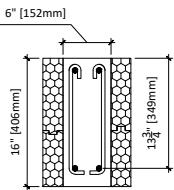
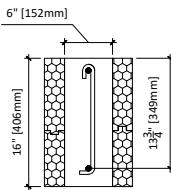


## PART 6.2

## US DESIGN GUIDE

### ILH 6x16 (P. 1/1)

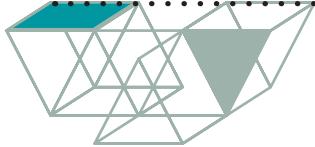
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	2844.6	1-#5 top 1-#5 bot. no stirrups #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. 2-#3 @ 6.5"
	50 psf	3160.4	1-#5 top 1-#5 bot. no stirrups #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #3 @ 6.5"	
	70 psf	3476.2	1-#5 top 1-#5 bot. no stirrups #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"		
(15 feet)	30 psf	3447.7	1-#5 top 1-#5 bot. no stirrups #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	
	50 psf	3895.1	1-#5 top 1-#5 bot. no stirrups #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"		
	70 psf	4342.6	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"			
(20 feet)	30 psf	4157.1	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"		
	50 psf	4736.1	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"		
	70 psf	5315.1	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"				
(25 feet)	30 psf	4850.4	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"			
	50 psf	5552.3	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"				
	70 psf	6254.1	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"				
(30 feet)	30 psf	5796.3	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"				
	50 psf	6673.6	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"					
	70 psf	7550.9	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"					
(35 feet)	30 psf	6285.3	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"					
	50 psf	7259.1	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"					
	70 psf	8232.9	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"					
(40 feet)	30 psf	6994.6	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"					
	50 psf	8100.1	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"					
	70 psf	9205.5	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"	1-#5 top 1-#5 bot. #3 @ 6.5"						



Lintel Width = 6"  
Lintel Depth = 16"  
Effective Depth = 13.75"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#5 top = top rebar  
1-#7 bot.= bottom rebar  
2-#3 @ 6.5" = use two #3 stirrups @ 6.5" O/C

\* Check applicability limits table 3 to use this chart

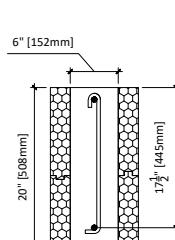


## PART 6.2

## US DESIGN GUIDE

### ILH 6x20 (P. 1/2)

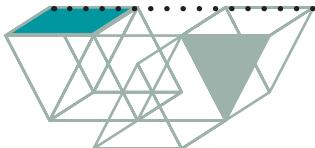
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	2875.1	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"				
	50 psf	3191.0	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"
	70 psf	3506.8	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"
(15 feet)	30 psf	3478.3	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"
	50 psf	3925.7	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"
	70 psf	4373.1	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#6 top 1-#6 bot. #3 @ 7"
(20 feet)	30 psf	4187.7	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"	2-#5 top 2-#5 bot. 2-#3 @ 7"
	50 psf	4766.7	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	70 psf	5345.7	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"
(25 feet)	30 psf	4881.0	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	50 psf	5582.9	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"
	70 psf	6284.7	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
(30 feet)	30 psf	5826.9	1-#5 top 1-#5 bot. no stirrups	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"
	50 psf	6704.2	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"
	70 psf	7581.5	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"
(35 feet)	30 psf	6315.8	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"
	50 psf	7289.6	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"
	70 psf	8263.5	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"
(40 feet)	30 psf	7025.2	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"
	50 psf	8130.6	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	2-#5 top 2-#5 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	
	70 psf	9236.0	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#5 top 1-#5 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 7"	2-#5 top 2-#5 bot. 2-#3 @ 7"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	



Lintel Width = 6"  
 Lintel Depth = 20"  
 Effective Depth = 17.5"  
 $F'c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#9 top = top rebar  
 1-#9 bot. = bottom rebar  
 2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

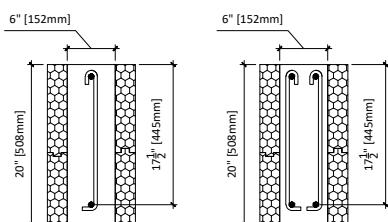


## PART 6.2

## US DESIGN GUIDE

### ILH 6x20 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	2875.1	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"			
	50 psf	3191.0	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot.				
	70 psf	3506.8	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"					
(15 feet)	30 psf	3478.3	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"				
	50 psf	3925.7	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"						
	70 psf	4373.1	1-#8 top 1-#8 bot. #3 @ 7"	1-#9 top 1-#9 bot. #3 @ 7"							
(20 feet)	30 psf	4187.7	1-#8 top 1-#8 bot. #3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot.						
	50 psf	4766.7	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot.	1-#8+1-#5 bot. 2-#3 @ 7"						
	70 psf	5345.7	1-#9 top 1-#9 bot. #3 @ 7"								
(25 feet)	30 psf	4881.0	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot.	1-#8+1-#5 bot. 2-#3 @ 7"						
	50 psf	5582.9	1-#9 top 1-#9 bot. #3 @ 7"								
	70 psf	6284.7									
	30 psf	5826.9									
(30 feet)	50 psf	6704.2									
	70 psf	7581.5									
	30 psf	6315.8									
(35 feet)	50 psf	7289.6									
	70 psf	8263.5									
	30 psf	7025.2									
(40 feet)	50 psf	8130.6									
	70 psf	9236.0									



Lintel Width = 6"  
Lintel Depth = 20"  
Effective Depth = 17.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#9 top = top rebar  
1-#9 bot.= bottom rebar  
2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

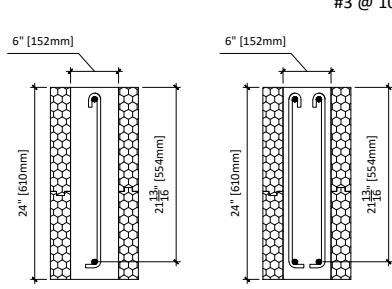


## PART 6.2

## US DESIGN GUIDE

### ILH 6x24 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Story ICF + Light Frame Roof								
			Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	2905.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"					
	50 psf	3221.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"					
	70 psf	3537.3	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"					
(15 feet)	30 psf	3508.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"					
	50 psf	3956.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"					
	70 psf	4403.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 10.5"				
(20 feet)	30 psf	4218.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 10.5"				
	50 psf	4797.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 10.5"				
	70 psf	5376.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 10.5"	2-#3 @ 8.5"			
(25 feet)	30 psf	4911.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 10.5"				
	50 psf	5613.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"			
	70 psf	6315.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
(30 feet)	30 psf	5857.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"			
	50 psf	6734.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 1-#6 bot. #3 @ 8.5"
	70 psf	7612.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 1-#6 bot. #3 @ 8.5"
(35 feet)	30 psf	6346.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 8.5"	2-#5 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"
	50 psf	7320.2	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 1-#6 bot. #3 @ 8.5"
	70 psf	8294.0	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 1-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 8.5"
(40 feet)	30 psf	7055.7	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 1-#6 bot. #3 @ 8.5"
	50 psf	8161.2	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 1-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. #3 @ 8.5"
	70 psf	9266.6	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 1-#6 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 1-#6 bot. #3 @ 8.5"	2-#3 @ 8.5"



Lintel Width = 6"  
Lintel Depth = 24"  
Effective Depth = 21.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#9 top = top rebar  
1-#9 bot. = bottom rebar  
2-#3 @ 10.5" = use two #3 stirrups @ 10.5" O/C

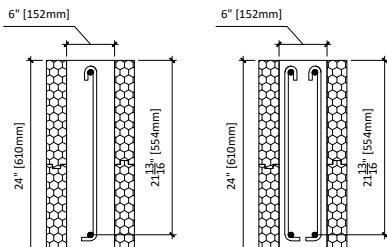
\* Check applicability limits table 3 to use this chart

## PART 6.2

## US DESIGN GUIDE

### ILH 6x24 (P. 2/2)

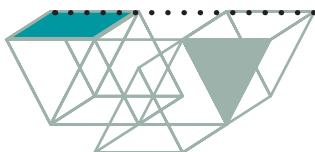
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	2905.7	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	1-#8 top 2-#6 bot. #3 @ 10.5"	2-#6 top 1-#8+1-#5 top 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"		
	50 psf	3221.5	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 10.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"		
	70 psf	3537.3	2-#5 top 2-#5 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"			
(15 feet)	30 psf	3508.8	2-#5 top 2-#5 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"			
	50 psf	3956.2	2-#5 top 2-#5 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"			
	70 psf	4403.7	2-#5 top 2-#5 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#9 top 1-#9 bot. #3 @ 8.5"				
(20 feet)	30 psf	4218.2	2-#5 top 2-#5 bot. #3 @ 10.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"			
	50 psf	4797.2	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"					
	70 psf	5376.2	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"					
(25 feet)	30 psf	4911.5	1-#8 top 1-#8 bot. #3 @ 8.5"	1-#8 top 1-#8 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"					
	50 psf	5613.4	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"							
	70 psf	6315.2	2-#6 top 2-#6 bot. #3 @ 8.5"	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"						
(30 feet)	30 psf	5857.4	2-#6 top 2-#6 bot. #3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"						
	50 psf	6734.7	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"								
	70 psf	7612.0									
(35 feet)	30 psf	6346.4	2-#6 top 2-#6 bot. #3 @ 8.5"								
	50 psf	7320.2	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"								
	70 psf	8294.0									
(40 feet)	30 psf	7055.7	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"								
	50 psf	8161.2									
	70 psf	9266.6									



Lintel Width = 6"  
 Lintel Depth = 24"  
 Effective Depth = 21.5"  
 $F_c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#9 top = top rebar  
 1-#9 bot.= bottom rebar  
 2-#3 @ 10.5" = use two #3 stirrups @ 10.5" O/C

\* Check applicability limits table 3 to use this chart

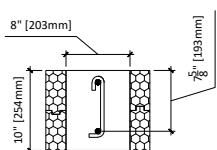


## PART 6.2

## US DESIGN GUIDE

### ILH 8x10 (P. 1/1)

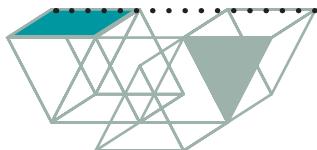
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	3191.2	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"				
	50 psf	3507.0	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"				
	70 psf	3822.9	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
(15 feet)	30 psf	3794.3	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	50 psf	4241.8	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	70 psf	4689.2	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
(20 feet)	30 psf	4503.7	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	50 psf	5082.8	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	70 psf	5661.8	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
(25 feet)	30 psf	5197.1	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"					
	50 psf	5898.9	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	70 psf	6600.8	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
(30 feet)	30 psf	6142.9	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	50 psf	7020.2	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	2-#4 top 2-#4 bot. 2-#3 @ 3.75"	2-#4 top 2-#4 bot. 2-#3 @ 3.75"					
	70 psf	7897.6	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
(35 feet)	30 psf	6631.9	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	50 psf	7605.7	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	70 psf	8579.5	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
(40 feet)	30 psf	7341.3	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	50 psf	8446.7	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	70 psf	9552.1	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					



Lintel Width = 8"  
 Lintel Depth = 10"  
 Effective Depth = 7.75"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 2-#3 @ 3.75" = use two #3 stirrups @ 3.75" O/C

\* Check applicability limits table 3 to use this chart

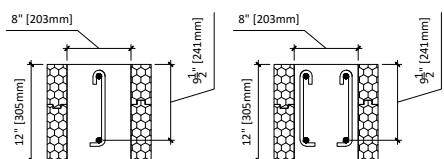


## PART 6.2

## US DESIGN GUIDE

### ILH 8x12 (P. 1/1)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintel in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	3211.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 4.5"		
	50 psf	3527.4	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"			
	70 psf	3843.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"			
(15 feet)	30 psf	3814.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"			
	50 psf	4262.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"			
	70 psf	4709.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
(20 feet)	30 psf	4524.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#5 bot. 2-#3 @ 4.5"			
	50 psf	5103.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	70 psf	5682.2	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
(25 feet)	30 psf	5217.5	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5+1-#4 top 1-#5+1-#4 bot. 2-#3 @ 4.5"				
	50 psf	5919.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"					
	70 psf	6621.2	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
(30 feet)	30 psf	6163.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"				
	50 psf	7040.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"					
	70 psf	7917.9	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"					
(35 feet)	30 psf	6652.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5+1-#4 top 1-#5+1-#4 bot. 2-#3 @ 4.5"				
	50 psf	7626.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"					
	70 psf	8599.9	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"					
(40 feet)	30 psf	7361.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"					
	50 psf	8467.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"					
	70 psf	9572.5	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5+1-#4 top 1-#5+1-#4 bot. 2-#3 @ 4.5"	1-#5+1-#4 top 1-#5+1-#4 bot. 2-#3 @ 4.5"					



Lintel Width = 8"  
Lintel Depth = 12"  
Effective Depth = 9.75"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#5 top = top rebar  
1-#5 bot.= bottom rebar  
2-#3 @ 4.5" = use two #3 stirrups @ 4.5" O/C

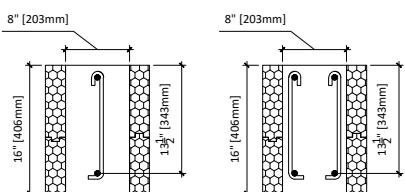
\* Check applicability limits table 3 to use this chart



## PART 6.2

# US DESIGN GUIDE

ILH 8x16 (P. 1/1)



Lintel Width = 8"  
Lintel Depth = 16"  
Effective Depth = 13.6"  
 $F'_c$  @ 28 days = 3,000 psi  
 $F_y$  = 60,000 psi

**Legend**  
1-#6 top = top rebar  
1-#6 bot.= bottom rebar  
2-#3 @ 6.5" = use two #3 stirrups @ 6.5" O/C

\* Check applicability limits table 3 to use this chart

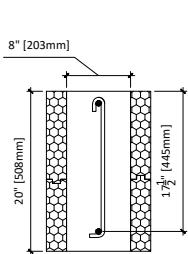


## PART 6.2

## US DESIGN GUIDE

### ILH 8x20 (P. 1/2)

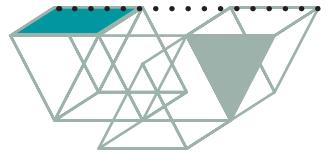
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	3293.1	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	50 psf	3608.9	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	70 psf	3924.8	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
(15 feet)	30 psf	3896.2	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	50 psf	4343.6	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	70 psf	4791.1	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"
(20 feet)	30 psf	4605.6	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"
	50 psf	5184.6	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"
	70 psf	5763.7	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"
(25 feet)	30 psf	5299.0	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"
	50 psf	6000.8	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 7"
	70 psf	6702.7	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"
(30 feet)	30 psf	6244.8	1-#6 top 1-#6 bot. no stirrups #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"
	50 psf	7122.1	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"
	70 psf	7999.4	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"
(35 feet)	30 psf	6733.8	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"
	50 psf	7707.6	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"
	70 psf	8681.4	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"
(40 feet)	30 psf	7443.2	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"
	50 psf	8548.6	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 7"	2-#6 top 2-#6 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"
	70 psf	9654.0	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"



Lintel Width = 8"  
 Lintel Depth = 20"  
 Effective Depth = 17.5"  
 $F_c' @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#6 top = top rebar  
 1-#6 bot.= bottom rebar  
 2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C"

\* Check applicability limits table 3 to use this chart

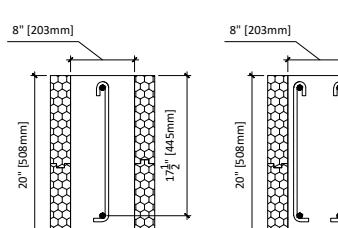


## PART 6.2

## US DESIGN GUIDE

### ILH 8x20 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	3293.1	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	50 psf	3608.9	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	70 psf	3924.8	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
(15 feet)	30 psf	3896.2	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	50 psf	4343.6	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	70 psf	4791.1	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
(20 feet)	30 psf	4605.6	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	50 psf	5184.6	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	70 psf	5763.7	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
(25 feet)	30 psf	5299.0	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	50 psf	6000.8	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	70 psf	6702.7	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
(30 feet)	30 psf	6244.8	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	50 psf	7122.1	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	70 psf	7999.4	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
(35 feet)	30 psf	6733.8	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	50 psf	7707.6	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	70 psf	8681.4	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
(40 feet)	30 psf	7443.2	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	50 psf	8548.6	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	70 psf	9654.0	2-#9 top 2-#9 bot. 2-#3 @ 7"								



Lintel Width = 8"  
Lintel Depth = 20"  
Effective Depth = 17.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#6 top = top rebar  
1-#6 bot.= bottom rebar  
2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C"

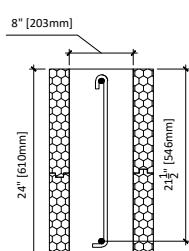
\* Check applicability limits table 3 to use this chart

## PART 6.2

## US DESIGN GUIDE

### ILH 8x24 (P. 1/2)

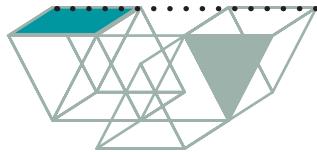
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Story ICF + Light Frame Roof								
			Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	3333.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"
	50 psf	3649.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"
	70 psf	3965.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"
(15 feet)	30 psf	3937.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"
	50 psf	4384.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"
	70 psf	4831.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"
(20 feet)	30 psf	4646.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot.
	50 psf	5225.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"
	70 psf	5804.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
(25 feet)	30 psf	5339.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot.
	50 psf	6041.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot.
	70 psf	6743.4	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
(30 feet)	30 psf	6285.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
	50 psf	7162.9	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"
	70 psf	8040.2	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"
(35 feet)	30 psf	6774.5	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot.
	50 psf	7748.3	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"
	70 psf	8722.2	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"
(40 feet)	30 psf	7483.9	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot.
	50 psf	8589.3	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"
	70 psf	9694.7	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	1-#6 top 1-#6 bot. #3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"



Lintel Width = 8"  
 Lintel Depth = 24"  
 Effective Depth = 21.5"  
 $F_c' @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#6 top = top rebar  
 1-#6 bot. = bottom rebar  
 2-#3 @ 10.5" = use two #3 stirrups @ 10.5" O/C

\* Check applicability limits table 3 to use this chart

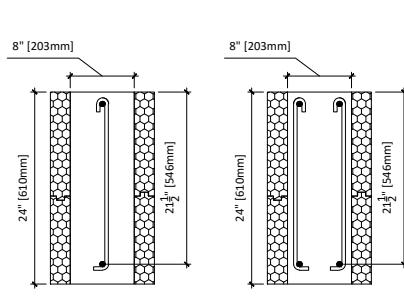


## PART 6.2

## US DESIGN GUIDE

### ILH 8x24 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	3333.8	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
	50 psf	3649.7	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"
	70 psf	3965.5	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"
(15 feet)	30 psf	3937.0	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"
	50 psf	4384.4	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
	70 psf	4831.8	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
(20 feet)	30 psf	4646.4	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
	50 psf	5225.4	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
	70 psf	5804.4	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
(25 feet)	30 psf	5339.7	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
	50 psf	6041.6	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
	70 psf	6743.4	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
(30 feet)	30 psf	6285.6	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
	50 psf	7162.9	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
	70 psf	8040.2	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"
(35 feet)	30 psf	6774.5	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	50 psf	7748.3	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	70 psf	8722.2	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
(40 feet)	30 psf	7483.9	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	50 psf	8589.3	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#9 top 2-#9 bot.
	70 psf	9694.7	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.



Lintel Width = 8"  
Lintel Depth = 24"  
Effective Depth = 21.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#6 top = top rebar  
1-#6 bot.= bottom rebar  
2-#3 @ 10.5" = use two #3 stirrups @ 10.5" O/C

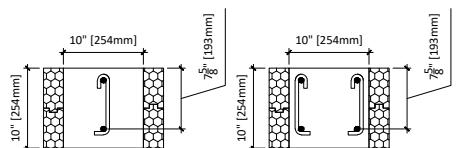
\* Check applicability limits table 3 to use this chart

## PART 6.2

## US DESIGN GUIDE

### ILH 10x10 (P. 1/1)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	3583.7	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"	1-#8 top 1-#8 bot. #3 @ 3.75"			
	50 psf	3899.5	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"				
	70 psf	4215.4	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"				
(15 feet)	30 psf	4186.8	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"				
	50 psf	4634.2	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"					
	70 psf	5081.7	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"					
(20 feet)	30 psf	4896.2	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"	2-#5 top 2-#5 bot. 2-#3 @ 3.75"					
	50 psf	5475.2	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"						
	70 psf	6054.3	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"						
(25 feet)	30 psf	5589.6	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"						
	50 psf	6291.4	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"						
	70 psf	6993.3	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"							
(30 feet)	30 psf	6535.4	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"						
	50 psf	7412.7	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"						
	70 psf	8290.0	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"							
(35 feet)	30 psf	7024.4	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#5 top 1-#5 bot. #3 @ 3.75"							
	50 psf	7998.2	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"							
	70 psf	8972.0	1-#5 top 1-#5 bot. #3 @ 3.75"								
(40 feet)	30 psf	7733.8	1-#5 top 1-#5 bot. #3 @ 3.75"	1-#6 top 1-#6 bot. #3 @ 3.75"							
	50 psf	8839.2	1-#5 top 1-#5 bot. #3 @ 3.75"								
	70 psf	9944.6	1-#5 top 1-#5 bot. #3 @ 3.75"								



Lintel Width = 10"  
Lintel Depth = 10"  
Effective Depth = 7.6"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#6 top = top rebar  
1-#6 bot.= bottom rebar  
2-#3 @ 3.75" = use two #3 stirrups @ 3.75" O/C

\* Check applicability limits table 3 to use this chart

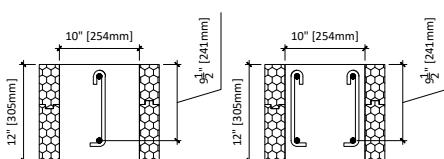


## PART 6.2

## US DESIGN GUIDE

### ILH 10x12 (P. 1/1)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof							
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft
(10 feet)	30 psf	3618.6	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#3 @ 4.5"	1-#8 top 1-#8 bot. #3 @ 4.5"	2-#6 top 2-#6 bot. 2-#3 @ 4.5"
	50 psf	3914.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#3 @ 4.5"	1-#8 top 1-#8 bot. #3 @ 4.5"	
	70 psf	4210.8	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#3 @ 4.5"	2-#6 top 2-#6 bot. 2-#3 @ 4.5"	
(15 feet)	30 psf	4212.3	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#3 @ 4.5"	2-#6 top 2-#6 bot. 2-#3 @ 4.5"	
	50 psf	4659.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#3 @ 4.5"	1-#8 top 1-#8 bot. #3 @ 4.5"		
	70 psf	5107.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#3 @ 4.5"			
(20 feet)	30 psf	4921.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#3 @ 4.5"		
	50 psf	5500.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#3 @ 4.5"		
	70 psf	6079.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#8 top 1-#8 bot. #3 @ 4.5"			
(25 feet)	30 psf	5615.0	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#3 @ 4.5"		
	50 psf	6316.9	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#3 @ 4.5"				
	70 psf	7018.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"					
(30 feet)	30 psf	6560.9	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"	2-#5 top 2-#3 @ 4.5"				
	50 psf	7438.2	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"					
	70 psf	8315.5	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"					
(35 feet)	30 psf	7049.8	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"					
	50 psf	8023.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"					
	70 psf	8997.5	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"					
(40 feet)	30 psf	7759.2	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"					
	50 psf	8864.7	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"					
	70 psf	9970.1	1-#5 top 1-#5 bot. #3 @ 4.5"	1-#6 top 1-#6 bot. #3 @ 4.5"						



Lintel Width = 10"  
 Lintel Depth = 12"  
 Effective Depth = 9.6"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 1-#5 top = top rebar  
 1-#5 bot.= bottom rebar  
 2-#3 @ 4.5" = use two #3 stirrups @ 4.5" O/C

\* Check applicability limits table 3 to use this chart

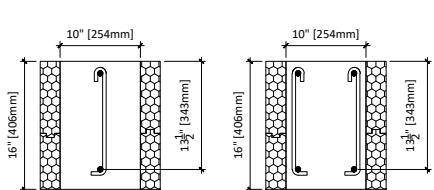


## PART 6.2

## US DESIGN GUIDE

### ILH 10x16 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof								
			Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	3660.1	1-#6 top 1-#6 bot. no stirrups #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"
	50 psf	3975.9	1-#6 top 1-#6 bot. no stirrups #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"
	70 psf	4291.8	1-#6 top 1-#6 bot. no stirrups #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"
(15 feet)	30 psf	4263.2	1-#6 top 1-#6 bot. no stirrups #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"
	50 psf	4710.7	1-#6 top 1-#6 bot. no stirrups #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"
	70 psf	5158.1	1-#6 top 1-#6 bot. no stirrups #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"	
(20 feet)	30 psf	4972.6	1-#6 top 1-#6 bot. no stirrups #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	1-#8+1-#5 top 1-#8+1-#5 bot. #2-3 @ 6.5"
	50 psf	5551.6	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"	
	70 psf	6130.7	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"	
(25 feet)	30 psf	5666.0	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"	
	50 psf	6367.8	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"	
	70 psf	7069.7	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"	
(30 feet)	30 psf	6611.8	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"		
	50 psf	7489.1	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"		
	70 psf	8366.5	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#8 top 1-#8 bot. #3 @ 6.5"		
(35 feet)	30 psf	7100.8	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"	
	50 psf	8074.6	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"	
	70 psf	9048.4	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"	1-#6+1-#5 top 1-#6+1-#5 bot. #2-3 @ 6.5"	2-#6 top 2-#6 bot. #2-3 @ 6.5"	
(40 feet)	30 psf	7810.2	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"			
	50 psf	8915.6	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"			
	70 psf	10021.0	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	1-#6 top 1-#6 bot. #3 @ 6.5"	2-#5 top 2-#5 bot. #2-3 @ 6.5"			



Lintel Width = 10"  
 Lintel Depth = 16"  
 Effective Depth = 13.6"  
 $F_c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#6 top = top rebar  
 1-#6 bot.= bottom rebar  
 2-#3 @ 6.5" = use two #3 stirrups @ 6.5" O/C

\* Check applicability limits table 3 to use this chart

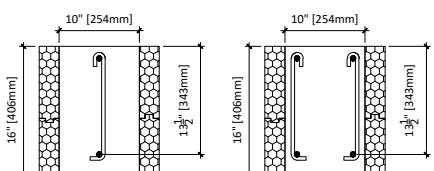


## PART 6.2

## US DESIGN GUIDE

### ILH 10x16 (P. 2/2)

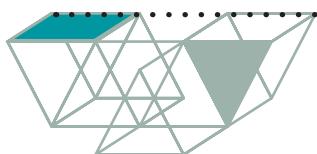
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	3660.1	2-#6 top 2-#6 bot. 2-#3 @ 6.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 6.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 6.5"						
	50 psf	3975.9	2-#6 top 2-#6 bot. 2-#3 @ 6.5"								
	70 psf	4291.8	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 6.5"								
(15 feet)	30 psf	4263.2	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 6.5"								
	50 psf	4710.7									
	70 psf	5158.1									
	30 psf	4972.6									
(20 feet)	50 psf	5551.6									
	70 psf	6130.7									
	30 psf	5666.0									
(25 feet)	50 psf	6367.8									
	70 psf	7069.7									
	30 psf	6611.8									
(30 feet)	50 psf	7489.1									
	70 psf	8366.5									
	30 psf	7100.8									
(35 feet)	50 psf	8074.6									
	70 psf	9048.4									
	30 psf	7810.2									
(40 feet)	50 psf	8915.6									
	70 psf	10021.0									



Lintel Width = 10"  
Lintel Depth = 16"  
Effective Depth = 13.6"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

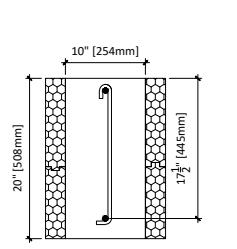
**Legend**  
1-#6 top = top rebar  
1-#6 bot.= bottom rebar  
2-#3 @ 6.5" = use two #3 stirrups @ 6.5" O/C

\* Check applicability limits table 3 to use this chart



## ILH 10x20 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	3711.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	50 psf	4026.9	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	70 psf	4342.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
(15 feet)	30 psf	4314.2	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"
	50 psf	4761.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"
	70 psf	5209.0	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"
(20 feet)	30 psf	5023.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"
	50 psf	5602.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"
	70 psf	6181.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"
(25 feet)	30 psf	5716.9	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"
	50 psf	6418.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"
	70 psf	7120.6	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"
(30 feet)	30 psf	6662.8	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"
	50 psf	7540.1	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"
	70 psf	8417.4	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"
(35 feet)	30 psf	7151.7	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. no stirrups	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"
	50 psf	8125.5	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"
	70 psf	9099.4	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot.
(40 feet)	30 psf	7861.1	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"
	50 psf	8966.5	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 1-#8+1-#5 top 1-#8+1-#5 bot.	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot.
	70 psf	10072.0	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	1-#6 top 1-#6 bot. #3 @ 8.5"	2-#5 top 2-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 7"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot.



Lintel Width = 10"  
 Lintel Depth = 20"  
 Effective Depth = 17.5"  
 $F_c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 1-#6 top = top rebar  
 1-#6 bot.= bottom rebar  
 2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

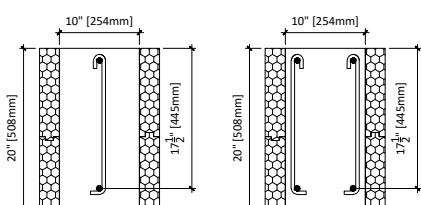


## PART 6.2

## US DESIGN GUIDE

### ILH 10x20 (P. 2/2)

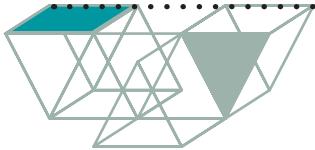
Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Story ICF + Light Frame Roof								
			Lintel Span - Feet								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	3711.0	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"
	50 psf	4026.9	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	
	70 psf	4342.7	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"		
(15 feet)	30 psf	4314.2	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 8.5"	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"	
	50 psf	4761.6	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"		
	70 psf	5209.0	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"			
(20 feet)	30 psf	5023.6	2-#6 top 2-#6 bot. 2-#3 @ 8.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"			
	50 psf	5602.6	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"				
	70 psf	6181.6	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"				
(25 feet)	30 psf	5716.9	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 7"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"				
	50 psf	6418.8	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"					
	70 psf	7120.6	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"					
(30 feet)	30 psf	6662.8	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"					
	50 psf	7540.1	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"						
	70 psf	8417.4	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"							
(35 feet)	30 psf	7151.7	2-#8 top 2-#8 bot. 2-#3 @ 7"	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"						
	50 psf	8125.5	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"						
	70 psf	9099.4	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"							
(40 feet)	30 psf	7861.1	2-#8 top 2-#8 bot. 2-#3 @ 7"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"							
	50 psf	8966.5	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 7"	2-#9 top 2-#9 bot. 2-#3 @ 7"							
	70 psf	10072.0	2-#9 top 2-#9 bot. 2-#3 @ 7"								



Lintel Width = 10"  
Lintel Depth = 20"  
Effective Depth = 17.5"  
F'c @ 28 days = 3,000 psi  
Fy = 60,000 psi

**Legend**  
1-#6 top = top rebar  
1-#6 bot. = bottom rebar  
2-#3 @ 8.5" = use two #3 stirrups @ 8.5" O/C

\* Check applicability limits table 3 to use this chart

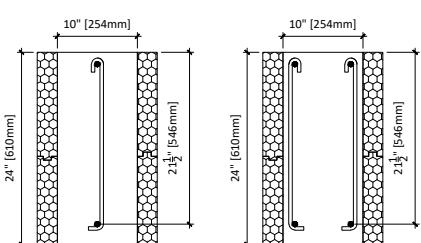


## PART 6.2

## US DESIGN GUIDE

### ILH 10x24 (P. 1/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof Lintel Span - Feet								
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	11 ft
(10 feet)	30 psf	3762.0	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#3 @ 10.5"					
	50 psf	4077.8	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
	70 psf	4393.7	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
(15 feet)	30 psf	4365.1	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#3 @ 10.5"					
	50 psf	4812.5	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
	70 psf	5260.0	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
(20 feet)	30 psf	5074.5	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"
	50 psf	5653.5	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
	70 psf	6232.6	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
(25 feet)	30 psf	5767.9	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
	50 psf	6469.7	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
	70 psf	7171.6	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
(30 feet)	30 psf	6713.7	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
	50 psf	7591.0	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
	70 psf	8468.3	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
(35 feet)	30 psf	7202.7	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
	50 psf	8176.5	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
	70 psf	9150.3	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"
(40 feet)	30 psf	7912.1	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"
	50 psf	9017.5	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"
	70 psf	10122.9	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#5 top 2-#5 bot. no stirrups	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	2-#3 @ 10.5"	1-#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 8.5"



Lintel Width = 10"  
 Lintel Depth = 24"  
 Effective Depth = 21.5"  
 $F'c @ 28 \text{ days} = 3,000 \text{ psi}$   
 $F_y = 60,000 \text{ psi}$

**Legend**  
 2-#6 top = top rebar  
 2-#6 bot.= bottom rebar  
 2-#3 @ 10.5" = use two #3 stirrups @ 10.5" O/C

\* Check applicability limits table 3 to use this chart

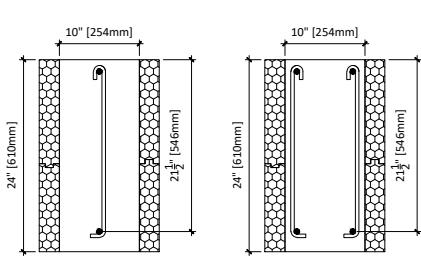


## PART 6.2

## US DESIGN GUIDE

### ILH 10x24 (P. 2/2)

Floor Clear Spanfeet	Ground snow load psf	Total Factored Uniform Load lbs/ft	Minimum Reinforcement for Lintels in Load Bearing Walls Carrying Second Storey ICF + Light Frame Roof								
			12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
(10 feet)	30 psf	3762.0	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 10.5"
	50 psf	4077.8	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 10.5"
	70 psf	4393.7	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"
(15 feet)	30 psf	4365.1	2-#5 top 2-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"
	50 psf	4812.5	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.
	70 psf	5260.0	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"
(20 feet)	30 psf	5074.5	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"
	50 psf	5653.5	1-#6+1-#5 top 1-#6+1-#5 bot. 2-#3 @ 10.5"	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"
	70 psf	6232.6	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"
(25 feet)	30 psf	5767.9	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"
	50 psf	6469.7	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 10.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"
	70 psf	7171.6	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"
(30 feet)	30 psf	6713.7	2-#6 top 2-#6 bot. 2-#3 @ 10.5"	1#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"
	50 psf	7591.0	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"	2-#3 @ 8.5"
	70 psf	8468.3	1#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"	2-#3 @ 8.5"
(35 feet)	30 psf	7202.7	1#8+1-#5 top 1-#8+1-#5 bot. 2-#3 @ 10.5"	1#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"
	50 psf	8176.5	1#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"	2-#3 @ 8.5"
	70 psf	9150.3	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"	2-#3 @ 8.5"
(40 feet)	30 psf	7912.1	1#8+1-#6 top 1-#8+1-#6 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"	2-#3 @ 8.5"
	50 psf	9017.5	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"	2-#3 @ 8.5"
	70 psf	10122.9	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	2-#8 top 2-#8 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot. 2-#3 @ 8.5"	1-#9+1-#8 top 1-#9+1-#8 bot. 2-#3 @ 8.5"	2-#9 top 2-#9 bot.	2-#3 @ 8.5"	2-#3 @ 8.5"	2-#3 @ 8.5"



Lintel Width = 10"  
 Lintel Depth = 24"  
 Effective Depth = 21.5"  
 F'c @ 28 days = 3,000 psi  
 Fy = 60,000 psi

**Legend**  
 2-#6 top = top rebar  
 2-#6 bot.= bottom rebar  
 2-#3 @ 10.5" = use two #3 stirrups @ 10.5" O/C

\* Check applicability limits table 3 to use this chart

Alleguard's Amvic™ ICF is a high quality, innovative construction system designed for both residential and commercial applications. Competitive pricing, extensive product distribution and excellent technical support are combined to provide our clients with a simplified approach to a superior finished product. If any questions or concerns are not completely addressed in this guide, please contact us and our staff will be happy to answer any question. At Alleguard, we pride ourselves in offering our customers an exceptional level of customer service.

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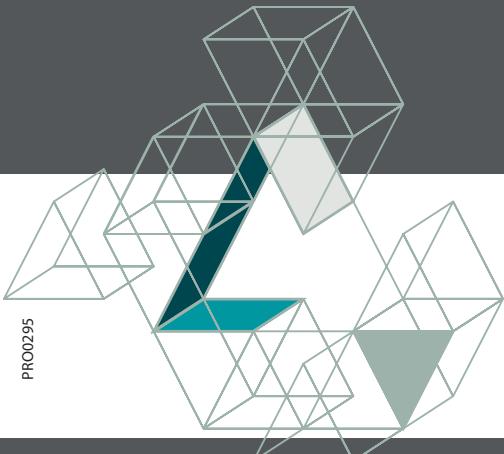
#### Technical Support

Please contact us for any inquiries pertaining to information included in this guide, or if you require any other technical assistance.

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