**HIGH WIND LOAD REINFORCEMENT REQUIREMENTS FOR 4" ICF WALLS**

Reinforcement in Above Grade 4" Walls FBC 2004/ACI 318-05

<table>
<thead>
<tr>
<th>Wind Speed</th>
<th>Wall Height</th>
<th>Vertical</th>
<th>Horizontal</th>
<th>Vertical</th>
<th>Horizontal</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 mph</td>
<td>8'</td>
<td>#4 @ 24&quot;</td>
<td>#4 @ 16&quot;</td>
<td>#4 @ 18&quot;</td>
<td>#4 @ 16&quot;</td>
</tr>
<tr>
<td></td>
<td>9'</td>
<td>#4 @ 24&quot;</td>
<td>#4 @ 16&quot;</td>
<td>#4 @ 12&quot;</td>
<td>#4 @ 16&quot;</td>
</tr>
<tr>
<td></td>
<td>10'</td>
<td>#4 @ 24&quot;</td>
<td>#4 @ 16&quot;</td>
<td>#5 @ 12&quot;</td>
<td>#4 @ 16&quot;</td>
</tr>
<tr>
<td></td>
<td>11'</td>
<td>#4 @ 24&quot;</td>
<td>#4 @ 16&quot;</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>12'</td>
<td>#4 @ 18&quot;</td>
<td>#4 @ 16&quot;</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Assumptions:**

- 120 mph at exposure category B
- 160 mph at exposure category C
- Max clear span for floor trusses is 24'
- Max clear span for roof trusses is 40'
- Max mean roof height is 30'
- Max 2 stories
- \( f_c' = 3,000 \text{ psi} \) Concrete
- \( f_y = 60,000 \text{ psi} \) Rebar

- Dead load = 25 psf
- Live floor load = 40 psf
- Live roof load = 20 psf
- No snow load
- No seismic load
- Wall openings 2 - #4 all around

\(^1\) At 160 mph must use:
- Max clear span for floor trusses is 20'
- Max clear span for roof trusses is 36'
- Max mean roof height is 25'

\(^2\) See typical opening detail and also Prescriptive Method