Flowchart for Evaluating Freestalls 2004
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**Surface Cushion**
- Does surface pass the "knee" test and supply traction?
- Yes
  - Is there adequate space for resting body?
  - Yes
    - Can cow successfully "lunge" to front?
  - No
    - No more than 11 inches above stall surface for adult Holstein cow

**Body Resting Space**
- Yes
- No

**Lunge Space**
- Can cow lunge over the lower divider rail?
  - Yes
  - Can cow lunge below the lower divider rail?
  - No
  - No
  - Can cow "bob" her muzzle at end of lunge?
  - Yes
  - Can cow rise without hitting neckrail?
  - Yes
    - Reposition neck rail to recommended height and distance from curb
  - No
    - No
    - No
- No

**"Bob" Space**
- No
  - Move or remove brisket locator or rebuild stall to provide adequate space

**Rising Room**
- No
  - Open the front of stall for forward lunge or replace divider to allow side lunge into adjacent stall
  - No
  - Remove protruding object (hang dividers from vertical posts, remove bars, etc)

**Recommended dimensions for various sized dairy heifers and cows**

<table>
<thead>
<tr>
<th>Body weight (lbs)</th>
<th>Stall width (in)</th>
<th>Body resting length (in)</th>
<th>Total stall length (in)</th>
<th>Min. neck rail height (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>29</td>
<td>43</td>
<td>57</td>
<td>32</td>
</tr>
<tr>
<td>600</td>
<td>33</td>
<td>46</td>
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<td>35</td>
</tr>
<tr>
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<tr>
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<td>57</td>
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<tr>
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<td>96</td>
<td>45</td>
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<tr>
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<td>70</td>
<td>106</td>
<td>48</td>
</tr>
<tr>
<td>1800</td>
<td>54</td>
<td>75</td>
<td>114</td>
<td>51</td>
</tr>
</tbody>
</table>

**Formulas to determine stall dimensions for cattle of various weights**

- Stall width, inches = 0.018 (lbs BW) + 21.9
- Resting length to brisket board, inches = 0.0224 (lbs BW) + 34.2
- Total stall length for forward lunge, inches = 0.0405 (lbs BW) + 41
- Height to bottom of neck rail, inches = 0.0136 (lbs BW) + 26.4