Hypotheses

- Average temperature decreases 2 degrees F with each descending floor level.
- The temperature difference (between the gallery and atrium space) decreases with each descending floor by 2 degrees F.
Second Floor Hobo Placement

Third Floor Hobo Placement
# Surface Temperatures

<table>
<thead>
<tr>
<th>First Floor</th>
<th>West</th>
<th>Middle</th>
<th>East</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Gallery Ledge (Atrium)</td>
<td>69 degrees F</td>
<td>71.5 degrees F</td>
<td>71.5 degrees F</td>
</tr>
<tr>
<td>Inside Gallery Wall</td>
<td>n/a</td>
<td>69 degrees F</td>
<td>71 degrees F</td>
</tr>
<tr>
<td>Outside Gallery Ledge (Atrium)</td>
<td>69 degrees F</td>
<td>69 degrees F</td>
<td>70.5 degrees F</td>
</tr>
</tbody>
</table>

## Atrium Glass Roof
- East Side: 80 degrees F
- West Side: 78 degrees F

## Inside Gallery Ledge (Atrium) Sensors
- 61 degrees F
- 63 degrees F
- 68 degrees F

## Gallery Wall
- 68 degrees F
- 71.5 degrees F
- 72.5 degrees F

## Third Floor Sensors
<table>
<thead>
<tr>
<th>West</th>
<th>Middle</th>
<th>East</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Gallery Ledge (Atrium)</td>
<td>68 degrees F</td>
<td>67 degrees F</td>
</tr>
<tr>
<td>Inside Gallery Ledge</td>
<td>61 degrees F</td>
<td>66 degrees F</td>
</tr>
<tr>
<td>Gallery Wall</td>
<td>68 degrees F</td>
<td>63 degrees F</td>
</tr>
</tbody>
</table>

# Wind Velocity

<table>
<thead>
<tr>
<th>First Floor</th>
<th>Second Floor</th>
<th>Third Floor</th>
</tr>
</thead>
<tbody>
<tr>
<td>West End</td>
<td>3 2 7</td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>1 1 1</td>
<td></td>
</tr>
<tr>
<td>East End</td>
<td>0 1 2</td>
<td></td>
</tr>
<tr>
<td>Gallery</td>
<td>2 0 1</td>
<td></td>
</tr>
</tbody>
</table>
Acoustic Results

- **Atrium**
  - 60-61dB
- **Third Floor**
  - Middle Gallery Space-53-54 dB
  - Gallery Entrance-59-60 dB
  - Third Floor Atrium-63dB
- **Theatre**
  - 40-45 dB
- **Elevator**
  - 63-64 dB

**Appropriate Acoustical Range**
- Office Spaces/ Restaurants – 45-60 dB
- Theatre- 35-40 dB

Acoustical Survey

**Questions Asked**

- 1.) On a scale from one to ten what is the level of loudness of this space?
- 2.) On a scale from one to ten what is the annoyance level of this space?

**Results**

- On the third level people that rated the loudness over a 5 and the annoyance number would be typically higher that the loudness number
- Results showed that it was quieter on first floor and the annoyance number was usually lower that loudness number.