The discussion of a signature project identified a set of phases in a development project. Most projects go through some variant of this set of development phases.

<table>
<thead>
<tr>
<th>1</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BLUE SKY:</strong> Pre-project planning</td>
<td>CONCEPT DEVELOPMENT</td>
<td>Assess Financial Feasibility</td>
<td>Develop Design</td>
<td>Develop Construction Documents</td>
<td>Bid &amp; Construct</td>
<td>O&amp;M</td>
</tr>
<tr>
<td>High leverage on success</td>
<td>High leverage on success</td>
<td>• Use VR CAVE</td>
<td>• Not enough work in 1&amp;2 to predict $ well</td>
<td>• Predict</td>
<td>Major money spent here</td>
<td>Major money spent here</td>
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<td>o OPENING DATE</td>
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<td>o COST</td>
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</table>

**Area of greatest potential impact of new IT methods**

Lots of Construction research focuses here

**WALL OF DELIVERABLES**

We agreed that

- Phases 1-2 offered the greatest potential value for research in the next 3-5 years.
- It is appropriate and valuable to identify specific measurable business objectives as new research projects are introduced into both pilot and operational use.
- Specific Metrics of the performance new IT tools include (goal in parentheses):
  - Time to complete each development phase (significantly shorter than current practice);
  - Schedule performance of detailed activities within each phase (significantly shorter than current practice);
  - Number of Design Alternatives (2 or more for each considered issue, vs. about 1 in current practice);
  - Data Reuse Within And Across Projects;
  - Need to reenter the same data twice (or more) within and across projects.