Arcamed seeks expansion layout(s) that improve their current production flow. Having recently acquired 16,000 square ft. of additional space, new facility layout options can incorporate post outside service workflow, account for the growth of their 3-year blueprint, and optimize flow of material throughout the entire facility.

**System Flow**

- Problem Statement
  - Arcamed is a fast, responsive, and reliable provider of case and tray systems and precision machined products to orthopedic OEMs
  - Their surgical cases and trays are manufactured with their exclusive ARC™ (All Riveted Construction) system of design, dramatically enhancing the durability, usability, and attractiveness of your case-tray system
  - Their capabilities span from initial prototypes to full production runs and are scalable according to their partner needs

**Methodology**

- Relationship chart measures work process to determine the significance for each machine and influences machine placement in new design(s).

**Discussion**

- Focuses with new designs:
  - Improved overall product flow traffic
  - Major pain point of lack of storage in certain departments
  - Post outside workflow machinery moved in-house
  - Additional space utilization for employee growth and gatherings

**Results**

- Decreased travel distance for product flow

**Analytics**

<table>
<thead>
<tr>
<th>Department</th>
<th>Original Square Footage</th>
<th>New Square Footage</th>
<th>Percent Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitting</td>
<td>1130</td>
<td>2480</td>
<td>120%</td>
</tr>
<tr>
<td>Shipping</td>
<td>1200</td>
<td>1452</td>
<td>22%</td>
</tr>
</tbody>
</table>

- Outourced Machines Added: 5
- Additional Machines: 6
- Storage Percent Increase: 82%
- Manufacturing Floor Space Added: 12,118 sq. ft.
- Office Space Percent Increase: 3,882 sq. ft.

Based on our Relationship Chart, including our client’s expectations and constraints, these are the resulting changes recommended to be implemented in the new layout design.