Our mission is to develop a design that merges education with the community in a facility that is safe and cost effective while functioning as a learning tool.
reading elementary school
$12,989 / student \times 1055 \text{ students} = 13.7\text{MM}

\$13.7\text{MM} / 89,500 \text{ SF} = 153 / \text{SF}

\$17.5\text{MM} / 89,500 \text{ SF} = 195 / \text{SF}
experience - lobby
experience - lobby
community - pool
education - classroom

teacher perspective

electric light

conclusion
appendix
education
community
experience
function
nexus
reading elementary school
recap of goals

safety & security
lifecycle & maintenance
cost effective
integration
reduce, recover, reuse
learning tool
### conclusion

- ETABS model
- RAM model
- detailing structure
- detailing connections of the steel beams to the concrete bearing wall
- detailing the reinforcing in the concrete walls for compression and for lateral shear

### mechanical

- working with HVAC manufacturers
- system investigations - energy storage
- investigate ways of altering the configuration of the air handlers and exhaust components
- investigate opportunities for more advanced energy savings; update energy models

### lighting / electrical

- light the offices, hallways, clinic, and exterior
- investigate and determine the appropriate electrical system
- update energy models to determine energy savings

### construction management

- detailed estimate – structure, façade, MEP, finishes
- first cost versus life cycle analyses
- detailed schedule – update structural components; more in-depth MEP and finishing sequences; risk analysis
- site logistics / 4D – more detailed including equipment simulations; clash detection
- constructability – systems integration; crane and concrete pump sizing; hoist functionality
- LEED analysis – LEED checklist; sustainability challenges; cost benefit analysis

### look-ahead

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov. 12</td>
<td>week 1 (presentation 11/12)</td>
</tr>
<tr>
<td>Dec. 10</td>
<td>week 5 (report draft 12/14)</td>
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<tr>
<td>Jan. 7</td>
<td>week 9 (presentation 1/9)</td>
</tr>
<tr>
<td>Jan. 21</td>
<td>week 11 (presentation 1/23)</td>
</tr>
<tr>
<td>Feb. 4</td>
<td>week 13 (presentation 2/6)</td>
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<tr>
<td>Feb. 18</td>
<td>week 15 (final submission 2/22)</td>
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</tbody>
</table>
appendix
site logistics
Daylighting / artificial

Daylight - December

Daylight - June

Daylight and Electric - December
### Mechanical

<table>
<thead>
<tr>
<th>Zone</th>
<th>Cooling Capacity (TONS)</th>
<th>Heating Capacity (TONS)</th>
<th>Airflow (CFM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Pool</td>
<td>15.6</td>
<td>26.3</td>
<td>7800</td>
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<tr>
<td>2 Multi-Purpose Room</td>
<td>16.6</td>
<td>7.6</td>
<td>6225</td>
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<tr>
<td>3 Lobby/Admin Wing</td>
<td>42.7</td>
<td>33.0</td>
<td>19300</td>
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<tr>
<td>4 Central Wing</td>
<td>64.3</td>
<td>71.1</td>
<td>27300</td>
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<tr>
<td>5 Right Wing</td>
<td>19.6</td>
<td>10.8</td>
<td>8310</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>157.8</strong></td>
<td><strong>148.7</strong></td>
<td><strong>68935</strong></td>
</tr>
</tbody>
</table>
nexus
function
experience
community
education
conclusion
appendix
mechanical