Springfield High School
Springfield School District
Delaware County - Pennsylvania

Master Plan Presentation
Town Hall Meeting 4
Community/ Academic / Athletics and Recreation / Sustainability

January 14th, 2015
Town Hall Meetings

• Town Hall Meeting 1 (October 16th, 2014)
  Repeat Presentation of May 22, 2014 Board Meeting

• Town Hall Meeting 2 (November 13th, 2014)
  Existing Building / Right-Sizing / Education Model

• Town Hall Meeting 3 (December 11th, 2014)
  Phasing / Traffic and Parking

• Town Hall Meeting 4 (January 14th, 2015)
  Community/ Academic / Athletics and Recreation / Sustainability

• Town Hall Meeting 5 (February 4th, 2015)
  Financial Options / Cost Options / Tax Impact

• Town Hall Meeting 6 (March 19th, 2015)
  Recap / Summary / Options for Moving Forward
WHY?

Renovation Challenges

- Code
- Roofing
- Windows
- Envelope
- Electric
- Asbestos Roof Deck
- HVAC
- Plumbing
Town Hall Meeting 4
Community / Academic / Athletics and Recreation / Sustainability

Presentation Outline

• Community Benefits
  - Access to Shared Spaces as Community Resource
  - Town Green / Athletics and Recreation

• Academic Impacts

• Athletic Impacts

• Regulatory / Sustainability
  - Zoning
  - Sustainability / Storm water Management

• Discussion
Existing Facility / Community
Four Options Compared

- Maintain Existing Building – (Service Life Extension)
- Renovate Existing Building
- Leamy Ave. New Building
- Saxer Ave. New Building
Community Benefits
COMMUNITY SHARED SPACES – Maintain / Renovate Existing

- Gymnasium
- Theater
- Plaza
- Library on 2nd floor
TOWN GREEN – Renovate Existing

New Parking

New Field

New Gymnasium
• Public Facilities such as Gym, Theatre and Library are grouped near entry.
  • Ease of entry for large events
  • Allows public functions to be secured from classrooms

• New Public Plazas create social spaces for community and places to gather during large events

• Paths throughout the site connect fields with school and neighborhood.
TOWN GREEN – Leamy Ave Scheme

- Additional Fields
- Turf Field & 8 lane Track
- Academic Wing – 3 Stories
- New High School
- Additional Parking
• Public Facilities such as Gym and Theatre are grouped near entry.
  • Ease of entry for large events
  • Allows public functions to be secured from classrooms

• New Public Plazas create social spaces for community and places to gather during large events

• Paths throughout the site connect fields with school and neighborhood.

• Connection to Downtown
TOWN GREEN – Saxer Ave Scheme

New High School

Academic Wing – 3 Stories

Turf Field & 8 lane Track

Additional Fields

Additional Parking

Saxer Ave. Scheme
Athletic Impact / Disruption
<table>
<thead>
<tr>
<th>District / Community Field</th>
<th># of Teams</th>
<th># of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Stadium Field</td>
<td>13</td>
<td>500</td>
</tr>
<tr>
<td>High School Baseball Field</td>
<td>4</td>
<td>68</td>
</tr>
<tr>
<td>High School Field Hockey Field</td>
<td>4</td>
<td>116</td>
</tr>
<tr>
<td>High School Bus Lot Field</td>
<td>2</td>
<td>167</td>
</tr>
<tr>
<td>ETR - Baseball Field</td>
<td>3</td>
<td>113</td>
</tr>
<tr>
<td>ETR - Lower Soccer/Lacrosse Field</td>
<td>5</td>
<td>138</td>
</tr>
<tr>
<td>ETR - Upper Soccer Field</td>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td>Sabold - Back Field Multi Use</td>
<td>20</td>
<td>325</td>
</tr>
<tr>
<td>Scenic - Softball / Soccer Field</td>
<td>9</td>
<td>115</td>
</tr>
<tr>
<td>Halderman Front Field</td>
<td>13</td>
<td>193</td>
</tr>
<tr>
<td>Halderman Back Field</td>
<td>8</td>
<td>182</td>
</tr>
<tr>
<td>Central</td>
<td>10</td>
<td>160</td>
</tr>
<tr>
<td>Veterans Memorial Park*</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Crowell Park*</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>95</strong></td>
<td><strong>2,144</strong></td>
</tr>
</tbody>
</table>

*District teams only

**Public Park**

**District Owned Field**
**FIELDS**

**Maintain**
- New Turf Football field
- New 8 Lane Track

**Renovate**
- 1 Additional field
- New Turf Football field
- New 8 Lane Track

**Leamy**
- 2 Additional fields
- New Turf Football field
- New 8 Lane Track

**Saxer**
- 2 Additional fields
- New Turf Football field
- New 8 Lane Track

4 Options Compared
## ATHLETICS - FIELDS

### Maintain Exstg | Renovate Exstg | New Leamy Ave. | New Saxer Ave.

<table>
<thead>
<tr>
<th>Maintain Current Facility</th>
<th>Maintain Existing + New Gym</th>
<th>All New</th>
<th>All New</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Increase On-site Fields</strong></td>
<td>No</td>
<td>+1</td>
<td>+2</td>
</tr>
<tr>
<td><strong>Existing Fields Impacted</strong></td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Turf field – Increased Scheduling</strong></td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Community Use of Fields</strong></td>
<td>No change</td>
<td>Increased</td>
<td>Increased</td>
</tr>
<tr>
<td><strong>Gym and Track Expansion</strong></td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Safety – Use of Remote Fields</strong></td>
<td>No Change</td>
<td>No Change</td>
<td>Reduced</td>
</tr>
<tr>
<td><strong>Access to Athletic Trainer</strong></td>
<td>No Change</td>
<td>No Change</td>
<td>Increased</td>
</tr>
</tbody>
</table>

*Images of athletic fields from different perspectives.*
## ACADEMIC IMPACT/ PHASING

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maintain Current Facility</td>
<td>Maintain Existing + New Gym Relocate Admin</td>
<td>All New</td>
<td>All New</td>
</tr>
<tr>
<td><strong>PHASING/SCHEDULE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated Base Construction Duration</td>
<td>3.2 yrs. (38 months)</td>
<td>3.25 yrs. (39 months)</td>
<td>3.25 yrs. (39 months)</td>
<td>1.75 yrs. (21 months)</td>
</tr>
<tr>
<td>Estimated Overall Project Duration (incl. phasing)</td>
<td>3.7 yrs. (44 months)</td>
<td>4.7 yrs. (56 months)</td>
<td>5 yrs. (60 months)</td>
<td>3 yrs. (36 months)</td>
</tr>
<tr>
<td>Senior Classes Effected</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Circulation/Campus Disruption</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Potential for Schedule Creep</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td><strong>TEMPORARY SPACE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temporary Classrooms, Space required</td>
<td>Yes 25-30-Potential</td>
<td>Yes 25-30-Potential</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**KEY:**
- LOW IMPACT
- MEDIUM IMPACT
- HIGH IMPACT
## ACADEMIC IMPACT – DISRUPTION DURING CONSTRUCTION

<table>
<thead>
<tr>
<th></th>
<th>Maintain Existing</th>
<th>Renovate Existing</th>
<th>New Leamy Avenue</th>
<th>New Saxer Avenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact on Educational Environment</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Impact on Student Achievement</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Impact on Student/Staff Morale</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Relocation of Program Spaces During Construction</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Interior Circulation Disruption Around Construction Areas</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Exterior Circulation Disruption Around Construction Areas</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Construction Areas Next to Program Areas</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>High Noise Levels</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Outside Travel Between Buildings</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**KEY:** LOW IMPACT, MEDIUM IMPACT, HIGH IMPACT
Regulatory / Sustainability
**Regulatory Analysis**

**Regulations**

Max Building Coverage Permitted = 30%
Max Impervious Coverage Permitted = 40%

**Maintain & Renovate Schemes**

- Building Coverage = 20% +/-
  Total Impervious = 43% +/-

**Leamy Scheme**

- Building Coverage = 11% +/-
  Total Impervious = 40% +/-

**Saxer Scheme**

- Building Coverage = 11% +/-
  Total Impervious = 40% +/-
• Site Drains to two watersheds – **Crum Creek** and **Darby-Cobbs Creek**
• Crum Creek stormwater requirements for rate control are more restrictive than Darby-Cobbs Creek.
• Protect both watersheds with any development
• Existing condition has no runoff controls for rate, volume, water quality
• Opportunity to provide state of the art stormwater BMPs to control rate, volume, water quality

**Renovate**
- Infiltration basins required in both watersheds

**Leamy**
- Infiltration basins required in both watersheds

**Saxer**
- Infiltration basins required in Darby-Cobbs.
- Rate control basin required in Crum Creek
Common sense approach to sustainable design will provide return on investment through:

- Reduced operational cost
- Increased educational opportunities
- Improved educational and working environment.
INCREASED EDUCATIONAL OPPORTUNITIES
INCREASED EDUCATIONAL OPPORTUNITIES
EXISTING HALLWAY

EXISTING CLASSROOM

EXEMPLAR HALLWAY

EXEMPLAR CLASSROOM
SUSTAINABLE DESIGN OPPORTUNITIES

**LANDSCAPE**
- Opportunity for green roof areas [reduces rainwater run-off to creek], expanded habitat areas, integrated native/natural landscape, future connections to the creek, & program opportunities.

**SUN**
- Shield for summer sun & capture winter sun.

**WATER**
- Opportunity for raingardens [reduces stormwater run-off, increases habitat, integrates collection of rainwater for planting irrigation & toilet flushing].

**SUN**
- Opportunity for photo voltaic & solar hot water.

**DAYLIGHT**
- Capture northern daylight & other daylighting opportunities.

**WIND**
- Opportunity for natural ventilation & energy recovery.

**EARTH**
- Opportunity for geo-exchange for heating & cooling.

**EARTH**
- Opportunity to re-use existing materials in various ways, & recycle waste materials.
LEARNING LANDSCAPES – PATH OF WATER

RAINWATER HARVESTING
rainfall is captured on the roofs, piped into gutters, and viewed in courtyard rain garden displays

RAIN GARDENS
unique educational environments and provide the primary filtration of grey water

GREEN ROOF
captures rainwater and provides outdoor classroom opportunities

GREY WATER
rainwater is used to flush toilets

WATER FEATURE
water is displayed through the roof and along the green wall into a fountain as it makes its way into the cistern

FILTERED RUNOFF
overland sheet flow is filtered by vegetation before reaching the creek

STORAGE CISTERN
underground cisterns collect and store filtered stormwater for reuse in landscape irrigation
LEARNING LANDSCAPES – PATH OF WATER
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