### Building Information
- **Facility:** Independence HS
- **Date:** July 24, 2014
- **Building:** M1
- **Roof SQ FT:** 10,500

### Roof Construction
- **Roof Age:** SS 2007
  - **Deck Type:**
    - Metal
    - Plywood
    - Plank
    - Concrete
    - LW Concrete
- **Insulation:**
  - None
  - Iso
  - Fiber
  - Perlite
  - Styro
- **Insul Thick:**
  - 1 Inch
  - 2 Inch
  - 3 Inch
  - 4 Inch
  - Tapered
- **Membrane:**
  - Metal SS
  - Single Ply
  - Bur
  - Mod Bit
  - Two Systems
- **Mem Surface Coating:**
  - MS Cap
  - Gravel
  - Smooth
- **Flashings:**
  - Capsheet
- **Deck Type:**
  - Metal
  - Plywood
  - Plank
  - Concrete
  - LW Concrete
- **Insulation:**
  - None
  - Iso
  - Fiber
  - Perlite
  - Styro
- **Insul Thick:**
  - 1 Inch
  - 2 Inch
  - 3 Inch
  - 4 Inch
  - Tapered
- **Membrane:**
  - Metal SS
  - Single Ply
  - Bur
  - Mod Bit
  - Two Systems
- **Mem Surface Coating:**
  - MS Cap
  - Gravel
  - Smooth
- **Flashings:**
  - Capsheet
- **Slope:**
  - None
  - 1:12
  - 2:12
  - 3:12
  - SS 6:12

### Roof Condition - Ratings (1-10) and Recommendations

<table>
<thead>
<tr>
<th>Field</th>
<th>Repairs Needed</th>
<th>Rating</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reseal Seams</td>
<td></td>
<td>7</td>
<td>Blister or Ridge</td>
</tr>
<tr>
<td>Clear Roof of Debris</td>
<td></td>
<td></td>
<td>Deck Repair Needed</td>
</tr>
<tr>
<td>Clear Repair Suspected</td>
<td></td>
<td></td>
<td>Membrane Brittle</td>
</tr>
<tr>
<td>Fill Ponding Areas</td>
<td></td>
<td>7</td>
<td>Fix Deflection</td>
</tr>
<tr>
<td>Reseal/Repair All</td>
<td></td>
<td>5</td>
<td>Reseal/Repair Select</td>
</tr>
<tr>
<td>Reseal/Recoat AC Duct</td>
<td></td>
<td></td>
<td>Reseal/Recoat South Wall</td>
</tr>
<tr>
<td>Base Flash Craze Cracking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add/Enhance Crickets</td>
<td></td>
<td>7</td>
<td>Add/Enhance Overflow</td>
</tr>
<tr>
<td>Clear Drains</td>
<td></td>
<td></td>
<td>Add Gutter</td>
</tr>
<tr>
<td>Gutter Repair Needed</td>
<td></td>
<td></td>
<td>Gutter Coating Needed</td>
</tr>
<tr>
<td>Reseal/Repair All</td>
<td></td>
<td>7</td>
<td>Reseal/Repair Select</td>
</tr>
<tr>
<td>Raise Curbs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintain Keep Drains Clean</td>
<td></td>
<td>7</td>
<td>Keep Watertways Clean</td>
</tr>
<tr>
<td>Spot Repair Until Reroof</td>
<td></td>
<td></td>
<td>Trim Trees</td>
</tr>
<tr>
<td>Clear Roof of Debris</td>
<td></td>
<td></td>
<td>HVAC Repair Needed</td>
</tr>
<tr>
<td>Hazmat Suspected</td>
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<tr>
<td>Leaks</td>
<td></td>
<td>7</td>
<td>Evidence of Leaks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

### Roof Condition - Overall System Rating
- **Very Poor:** Replace or coat immediately - spot repairs only
- **Poor:** Replace or coat in 1-2 years - spot repairs only
- **Fair:** Replace or coat in 3-5 years
- **Marginal:** Replace or coat in 5-10 years
- **Good:** SS - replace or coat in 10-15 years
- **Excellent:** Only if roof is less than 5 years old

### Budget Estimates
- **Immediate Repairs as Recommended:** $2,500.00
- **Yearly Preventative Maintenance:** $1,500.00
- **Roof Recoating:** $0.00
- **Roof Replacement:** $157,500.00
An aerial view of the building.

An overview photo from the roof level.
The photo below shows the lower roof sections in marginal condition.

The photo below shows the south walls coating and sealant is failing.
### Roof Construction

<table>
<thead>
<tr>
<th>Field</th>
<th>Repairs Needed</th>
<th>Rating</th>
<th>0-5 Years</th>
<th>5-10 Years</th>
<th>10-15 Years</th>
<th>15+ Years</th>
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</thead>
<tbody>
<tr>
<td>Deck Type</td>
<td>Metal, Plywood</td>
<td></td>
<td>✓</td>
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<tr>
<td>Insulation</td>
<td>None, ISO</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Membrane</td>
<td>Metal SS, Single Ply</td>
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<td>✓</td>
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<td></td>
<td></td>
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<tr>
<td>Membrane Surface</td>
<td>Coating</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
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</tr>
<tr>
<td>Flashings</td>
<td>Capsheet</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Drainage</td>
<td>Josam, Scuppers</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slope</td>
<td>None</td>
<td></td>
<td>✓</td>
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### Roof Condition - Ratings (1-10) and Recommendations

<table>
<thead>
<tr>
<th>Field</th>
<th>Repairs Needed</th>
<th>Rating</th>
<th>0-5 Years</th>
<th>5-10 Years</th>
<th>10-15 Years</th>
<th>15+ Years</th>
</tr>
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<tbody>
<tr>
<td>Roof Condition</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Field</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
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</tr>
</tbody>
</table>

### Building Information

- **Facility**: Independence HS
- **Date**: July 24, 2014
- **Building**: M2
- **Roof SQ FT**: 11,500

### Budget Estimates

- **Immediate Repairs as Recommended**: $0.00
- **Yearly Preventive Maintenance**: $1,500.00
- **Roof Recoating**: $0.00
- **Roof Replacement**: $172,500.00
An aerial view of the building.

An overview photo from the roof level.
The photo below shows the wall coating and flashing failing.

The photo below shows directly below the photo above.
### ROOF CONSTRUCTION

<table>
<thead>
<tr>
<th>ROOF AGE</th>
<th>DECK TYPE</th>
<th>INSULATION</th>
<th>INSUL THICK</th>
<th>MEMBRANE</th>
<th>MEM SURFACE</th>
<th>FLASHINGS</th>
<th>DRAINAGE</th>
<th>SLOPE</th>
<th>SLOPE</th>
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<tbody>
<tr>
<td>SS 2007</td>
<td>METAL</td>
<td>NONE</td>
<td>1 INCH</td>
<td>METAL SS</td>
<td>CONCRETE</td>
<td>CAPSHEET</td>
<td>JOSAM</td>
<td>NONE</td>
<td>1:12</td>
</tr>
<tr>
<td></td>
<td>PLYWOOD</td>
<td>ISO</td>
<td>2 INCH</td>
<td>SINGLE PLY</td>
<td>MS CAP</td>
<td></td>
<td>SCUPPERS</td>
<td></td>
<td>2:12</td>
</tr>
<tr>
<td></td>
<td>PLANK</td>
<td>FIBER</td>
<td>3 INCH</td>
<td>BUR</td>
<td>GRAVEL</td>
<td></td>
<td>SS GUTTERS</td>
<td></td>
<td>3:12</td>
</tr>
<tr>
<td></td>
<td>10-15 YEARS</td>
<td>PERLITE</td>
<td>4 INCH</td>
<td>MOD BIT</td>
<td>SMOOTH</td>
<td></td>
<td>OVER EDGE</td>
<td></td>
<td>SS 6:12</td>
</tr>
<tr>
<td></td>
<td>15+ YEARS</td>
<td>STYRO</td>
<td>TAPERED</td>
<td>TWO SYSTEMS</td>
<td></td>
<td></td>
<td></td>
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</table>

### ROOF CONDITION - RATINGS (1-10) and RECOMMENDATIONS

<table>
<thead>
<tr>
<th>FIELD</th>
<th>REPAIRS NEEDED</th>
<th>RATING</th>
<th>RESEAL SEAMS</th>
<th>BLISTERS or RIDGING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RESEAL SEAMS</td>
<td>5</td>
<td></td>
<td>SS RATING 8</td>
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<tr>
<td></td>
<td>CLEAR ROOF OF DEBRIS</td>
<td></td>
<td>DECK REPAIR NEEDED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DECK REPAIR SUSPECTED</td>
<td>✓</td>
<td>MEMBRANE BRITTLE</td>
<td></td>
</tr>
<tr>
<td>PITCH/POND</td>
<td>REPAIRS NEEDED</td>
<td>4</td>
<td>FILL PONDING AREAS</td>
<td>FIX DECK DEFLECTION</td>
</tr>
<tr>
<td>FLASHING</td>
<td>REPAIRS NEEDED</td>
<td>2</td>
<td>RESEAL/REPAIR ALL</td>
<td>RESEAL/REPAIR SELECT</td>
</tr>
<tr>
<td>DRAINAGE</td>
<td>REPAIRS NEEDED</td>
<td>2</td>
<td>ADD/ENHANCE CRICKETS</td>
<td>ADD/ENHANCE OVERFLOW</td>
</tr>
<tr>
<td>PENETRATION</td>
<td>REPAIRS NEEDED</td>
<td>2</td>
<td>CLEAR DRAINS</td>
<td>ADD GUTTER</td>
</tr>
<tr>
<td>MAINTENANCE</td>
<td>REPAIRS NEEDED</td>
<td></td>
<td>GUTTER REPAIR NEEDED</td>
<td>GUTTER COATING NEEDED</td>
</tr>
<tr>
<td>LEAKS</td>
<td>REPAIRS NEEDED</td>
<td>2</td>
<td>RESEAL/REPAIR ALL</td>
<td>RESEAL/REPAIR SELECT</td>
</tr>
</tbody>
</table>

### ROOF CONDITION - OVERALL SYSTEM RATING

<table>
<thead>
<tr>
<th>OVERALL SYSTEM RATING</th>
<th>RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERY POOR</td>
<td>REPLACE OR COAT IMMEDIATELY - SPOT REPAIRS ONLY</td>
</tr>
<tr>
<td>POOR</td>
<td>REPLACE OR COAT IN 1-2 YEARS - SPOT REPAIRS ONLY</td>
</tr>
<tr>
<td>FAIR</td>
<td>REPLACE OR COAT IN 3-5 YEARS</td>
</tr>
<tr>
<td>MARGINAL</td>
<td>REPLACE OR COAT IN 5-10 YEARS</td>
</tr>
<tr>
<td>GOOD</td>
<td>SS - REPLACE OR COAT IN 10-15 YEARS</td>
</tr>
<tr>
<td>EXCELLENT</td>
<td>ONLY IF ROOF IS LESS THAN 5 YEARS OLD</td>
</tr>
</tbody>
</table>

### BUDGET ESTIMATES

<table>
<thead>
<tr>
<th>BUDGET ESTIMATES</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMMEDIATE REPAIRS AS RECOMMENDED</td>
<td>$0.00</td>
</tr>
<tr>
<td>YEARLY PREVENTIVE MAINTENANCE</td>
<td>$1,500.00</td>
</tr>
<tr>
<td>ROOF RECOATING</td>
<td>$0.00</td>
</tr>
<tr>
<td>ROOF REPLACEMENT</td>
<td>$210,000.00</td>
</tr>
</tbody>
</table>
An aerial view of the building.

An overview photo from the roof level.
The photo below shows that the AC duct needs to be sealed and all the curbs raised.

The photo below shows evidence of leaks and wall problems.
**ROOF CONSTRUCTION**

<table>
<thead>
<tr>
<th>Deck Type</th>
<th>Plywood</th>
<th>Plank</th>
<th>Concrete</th>
<th>LW Concrete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulation</td>
<td>None</td>
<td>ISO</td>
<td>Fiber</td>
<td>Perlite</td>
</tr>
<tr>
<td>Insul Thick</td>
<td>1 Inch</td>
<td>2 Inch</td>
<td>3 Inch</td>
<td>4 Inch</td>
</tr>
<tr>
<td>Membrane</td>
<td>Metal SS</td>
<td>Single Ply</td>
<td>Bur</td>
<td>Mod Bit</td>
</tr>
<tr>
<td>Mem Surface</td>
<td>Coating</td>
<td>MS Cap</td>
<td>Gravel</td>
<td>Smooth</td>
</tr>
<tr>
<td>Drainage</td>
<td>Josam</td>
<td>Scuppers</td>
<td>Gutters</td>
<td>Over Edge</td>
</tr>
<tr>
<td>Slop</td>
<td>None</td>
<td>1:12</td>
<td>2:12</td>
<td>3:12</td>
</tr>
</tbody>
</table>

**ROOF CONDITION - RATINGS (1-10) and RECOMMENDATIONS**

- **Field Repair Needed**
  - Clear roof of debris
  - Deck repair needed
  - Reseal/rplace fasteners

- **Pitch/Pond Repair Needed**
  - Fill ponding areas
  - Fix deck deflection

- **Flashing Repair Needed**
  - Reseal/repair all
  - Reseal/recoat ac duct
  - Reseal/recoat wall

- **DRAINAGE Repair Needed**
  - Add/enhance crickets
  - Add/enhance overflow
  - Clear drains
  - Add gutter
  - Gutter repair needed
  - Gutter coating needed

- **Penetration Repair Needed**
  - Reseal/repair all
  - Reseal/repair select

- **Maintenance**
  - Keep drains clean
  - Keep waterways clean
  - Spot repair until reroof
  - Trim trees
  - Clear roof of debris
  - HVAC repair needed

- **Hazmat Suspected**
  - Keep gutters clear
  - Evidence of leaks
  - Yes

**ROOF CONDITION - OVERALL SYSTEM RATING**

- **Very Poor**
  - Replace or coat immediately - spot repairs only
- **Poor**
  - Replace or coat in 1-2 years - spot repairs only
- **Fair**
  - Good however plan to coat in 3-5 years
- **Marginal**
  - Replace or coat in 5-10 years
- **Good**
  - Replace or coat in 10-15 years
- **Excellent**
  - Only if roof is less than 5 years old

**ADDITIONAL NOTES**

Although the metal roofs are in great shape, the galvanized coating has a lifespan of about 10-15 years. The need for a coating is based solely on the estimate (guess in this case) of the roof age.

**BUDGET ESTIMATES**

- **Immediate Repairs as Recommended**
  - $0.00
- **Yearly Preventive Maintenance**
  - $2,500.00
- **Roof ReCoating**
  - $310,000.00
- **Roof Replacement**
  - $0.00
An aerial view of the building.

An overview photo from the roof level.
The photo below shows no signs of rust yet.

The photo below shows the need to periodically clean the gutters.