Facility Profile (FP-1)

City: Glassboro  
State: New Jersey  
Country: United States  
Address: 101 Abbots Pond Road, Glassboro, NJ  
Stories: 3  
Attic:  
Basement:  
Age (Years): 34  
Year Built: 1984  
Year of Renewal: 1984  
% Renewed: 0  
Walk Thru: 3/18/2014  

Primary Building Category: Housing and Business Services  
Secondary Building Use: Residential  
Cost/Sq. Ft.: $208.00  
Regional Cost Index: 1.122  
Replacement Cost: $9,411,587

Findings Summary:
Architecturally, the building requires masonry cleaning and painting of exterior components. The flat bituminous roofs are worn and require replacement. A majority of the interior wall, ceiling, and floor finishes require restoration and/or replacement. Interior dormitory room doors also require replacement as they are aged and worn.

Mechanically, the building is heated with a 2-pipe hot water system. Heating hot water is supplied from heat exchangers in the basement mechanical room and is distributed to air handling units, fan coil units, cabinet heaters or baseboard radiation. All the fan coil units are beyond their useful service life and some cabinets are damaged. Thermostat controls are also old and damaged. The basement mechanical room appears to be mostly original equipment and in need of replacement. Some of the deterioration is from constant flooding of the mechanical spaces which is addressed in the architectural section. This building has no cooling capacity and appears to suffer from the lack of humidity control. Magnolia supplies Willow and Chestnut with heating hot water via failing underground piping. There is a study suggested for heating all three buildings independently, as well as an air conditioning study. The exhaust fans, pumps and the steam pressure reducing station are also replacement projects. There is a chilled water loop extended into the building but is not yet in service, it is suggested a filter system be employed for keeping the lines clean. The plumbing systems domestic water heater (water to water heat exchanger) and back-up water heaters (two 120-gallon electric) require replacement. Currently, the plumbing fixtures do not incorporate any water conservation measures.

The electrical service, panel board, exit sign and lighting have deficiencies or areas for improvement. There is no emergency generator for this building.

This building is protected by an automatic wet pipe fire protection system but most of the sprinkler heads are not FM approved. The attic space could use a dry pipe sprinkler system. The building also has a fire alarm system that could use an upgrade.

Rowan University’s estimated replacement value of $130.80/SF is based on a FM Global value assuming standard construction with generalized additional factors (e.g. brick façade, casement windows). This estimation method does not account for differences in building design, construction methods and/or materials utilized. Entech Engineering, Inc.’s estimated replacement value is based off of 2014 RS Means Square Foot Cost Data with modifications as applicable to account for variances of construction and materials for similarly classified buildings. Entech Engineering, Inc.’s replacement value for Magnolia Hall reflects that the building has full height capability.
brick construction in some areas. Entech Engineering, Inc. recommends that Rowan University utilize the estimated replacement value of $208.00/SF in lieu of the FM Global replacement value of $130.80/SF for Magnolia Hall.
Term | Meaning
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Deficiency Cost Per Square Foot | The Deficiency Cost per Square Foot value provides an indication of the relative magnitude of the deficiencies in relation to the size of the building. This value, expressed in dollars per square foot, can be used to compare the cost of repairing a building to the cost of replacing or renovating it. It can also be used to benchmark the condition of one building against another. This value is calculated by dividing the total deferred maintenance cost of a building's proposed projects by the building's square footage.
Deferred Maintenance | Work items in need of repair due to postponed, or past due, maintenance, the result of which is physical depreciation or loss in the value of a building. These items can address Curable Physical Deterioration or Operational Repairs.
Curable Physical Deterioration | Items in need of repair in which the cost of repair is reasonable and economically feasible, compared to the cost to restore the item to new or reasonably new condition.
Operational Repairs | These are projects that correct damage to a building. Example: Correction of conditions caused by the failure of a building’s component such as the patching of a leaky roof, or replacing broken items such as door hardware. These projects usually fall under the category of Deferred Maintenance and for the purposes of this report are designated as such.
Capital Renewal | These are projects which correct unacceptable conditions caused by worn-out building components - building components that have exceeded their useful life cycle or will exceed their useful lifecycle in the foreseeable future. Example: Finish repair/replacement such as painting or floor tile replacement; roof replacement where the new roof material is the same as the existing; or replacement of old equipment with new equipment of equal quality or function, such as a water heater replacement.
Capital Improvement | This Includes work done to a building that improves, enhances, or updates a building. Example: Work done to bring a building into compliance with current codes such as the addition of a handicapped accessible ramp, or work which improves a building’s performance such as replacing an existing roof with a superior roof system. Plant Adaptation is included in this category.
Capital Construction | New construction or the addition of building area or volume. Example: Renovations which allow the occupancy of previously unoccupied space, the construction of new facilities such as substantial additions to existing buildings, entire new buildings, or civil amenities such as roadways or water towers.
Facilities Condition Index or FCI | The FCI represents the ratio of identified Deferred Maintenance costs to estimated building Replacement Cost. This value is typically expressed as a three-digit decimal value with lower numbers representing better conditions. This value can be used to compare a building's condition to that of others, or to other average values. The National Association of College and University Business Officers (NACUBO) and the Association of Higher Education Facilities Officers (APPA) have outlined a scale for FCI ratios which offers some indication of the relative condition of a facility. They state that a building with an FCI greater than 0.100 is in poor condition and a building with an FCI less than 0.050 is in good condition. APPA and NACUBO also dictate in certain cases buildings should be maintained so that the FCI is less than 0.020. Entech considers buildings with an FCI less than 0.020 to be in excellent condition. Given this outline the condition of individual buildings can be rated according to FCI as follows:

<table>
<thead>
<tr>
<th>FCI</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 0.10</td>
<td>Poor</td>
</tr>
<tr>
<td>0.05 to 0.10</td>
<td>Fair</td>
</tr>
<tr>
<td>0.02 to 0.05</td>
<td>Good</td>
</tr>
<tr>
<td>Less than 0.02</td>
<td>Excellent</td>
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</tbody>
</table>

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