SOUTH DAKOTA BOARD OF REGENTS

Committee on Budget and Finance

AGENDA ITEM: III – G

DATE: December 3-4, 2014

SUBJECT: SDSU Brown Hall Renovations – Facility Design Plan

South Dakota State University requests approval of its Facility Design Plan to renovate Brown Hall at an estimated cost of $9,750,000. SDSU’s Preliminary Facility Statement and Facility Program Plan were approved by the Board at its October 2013 meeting at a preliminary cost estimate of $7,000,000. SDSU is requesting the addition of $2,750,000 to the project funding at this time.

This renovation project will include several major improvements. The first is an upper floor link above the existing lobby. This will link both existing residence towers on the 2nd, 3rd, and 4th floors. Additionally, an elevator will be installed to serve all four floors and the lower level. Approximately 5,529 square feet will be added that will accommodate the upper floor link, the elevator and additional restroom facilities, lounge and study areas and a kitchenette area.

The existing restroom towers will be completely renovated including shower, water closet and sink areas. Laundry facilities will be moved adjacent to each restroom on each floor, moving them from the existing lower level. As part of the restroom renovation, the sanitary sewer service, hot and cold domestic water distribution piping, water softener equipment and domestic hot water heaters will be replaced.

The heating system is currently baseboard heat. This will be replaced with four pipe hydronic for heating and cooling in each room. Ventilation air will be distributed to each student room plus ventilation and exhaust systems for the bathrooms and restrooms will be replaced. Finally, fire sprinkler systems will be installed throughout the facility.

(Continued)

RECOMMENDED ACTION OF THE EXECUTIVE DIRECTOR

Approve SDSU’s Brown Hall Facility Design Plan at an estimated project cost of $9,750,000. Funding for this project will be $7,000,000 from debt and refinancing proceeds already in place, $536,000 from FY16 & FY17 M&R project funds, $464,000 from remaining 2011 Bond funds, $750,000 in bond proceed interest income, and an estimated $1,000,000 in 2015 bond refinancing. Approve a 27% rate increase for Brown Hall, approximately $590 per semester, upon completion of the improvements to service the debt.
Changes to the previously approved Facility Program Plan include the following: replacement of fire detectors and wiring will not occur, fire escapes on the west and east ends of the building will not be enclosed, flooring replacement in the entire building will not occur and bedroom closets and doors will not be replaced, except where accessibility guidelines need to be met.

Funding for this project will be as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 Bond Re-financing (complete)</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>2014 New Debt Issued (complete)</td>
<td>$5,000,000</td>
</tr>
<tr>
<td>Re-prioritized M&amp;R FY16 and FY17 M&amp;R</td>
<td>$536,000</td>
</tr>
<tr>
<td>Remaining Bond Proceeds (2011 Bond Issue)</td>
<td>$464,000</td>
</tr>
<tr>
<td>Bond Proceeds Interest Income</td>
<td>$750,000</td>
</tr>
<tr>
<td>2015 Bond Call Re-financing Bond</td>
<td>$1,000,000</td>
</tr>
<tr>
<td><strong>TOTAL FUNDING</strong></td>
<td><strong>$9,750,000</strong></td>
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</table>

SDSU is requesting the addition of $2,750,000 to the project bringing the total cost to $9,750,000. SDSU would use maintenance and repair funds of $1,000,000, bond proceeds and interest of $1,214,000, and an estimated $1,000,000 of future refinancing proceeds to complete the project funding. The debt will be serviced by room rent increases assessed to Brown Hall residents.

Brown Hall will be special with the only in-room air conditioning other than Jackrabbit Village and Jackrabbit Grove. It is located in the midst of the newest halls so will fit into the level of amenities offered in those new halls. The current room rate for Brown Hall is $1,607.20 for a double. Using current rates, the proposed room rate would be $2,194.55 per semester which is halfway between Matthews ($1,892.60) and Caldwell ($2,496.50), reflecting the amenities that fall somewhere in the middle of the older and newer halls. Rates will all be adjusted forward for future years. The following are amenities provided to the renovated Brown Hall that are not available in the Mathews Hall renovation:

- In-room student-controlled central air conditioning, the first of its kind in a traditional hall, Mathews’ residents have window units and their accompanying limitations.
- Centrally cooled lounges, study space and other public areas.
- On-floor laundries on each wing, so eight total, Mathews has single laundry room in the basement.
- Large ground floor lobby with the conversion of the existing north apartment.
- Generous study and social space distributed onto each floor with the addition of the connecting link, elevator lobby area and on-floor kitchenettes. Again, Mathews has only one of these spaces and it is in the basement of the building.
- Elevator centrally located more effectively serves entire building.
The new rate will be effective when the project is complete. This rental rate will then allow Brown Hall to stand on its own relative to investment vs. rental rates.

Additional details of this project can be found in SDSU’s attached Facility Design Plan document and schematic drawings.
FACILITY DESIGN PLAN
FOR
BROWN HALL RENOVATIONS
RESIDENCE HALL CONSTRUCTION
SOUTH DAKOTA STATE UNIVERSITY

In accordance with Board of Regents (BOR) Policy 6.4 for Capital Improvements, South Dakota State University (SDSU) requests approval of this Facility Design Plan and recommend the project funding increase to be $9,750,000.

Brown Hall Renovation project incorporates several major improvements including the construction of upper floor link above the existing lobby, installation of an elevator in this link, renovation of the existing bathroom facilities, installation of new heating & cooling systems, and installation of a fire sprinkler system. This submittal is a result of the schematic design completed by MSH Architects.

A. Architectural, Mechanical & Electrical Schematic Design

Schematic Design and Summary of Architectural Work:
1. Central Link:
   a. The existing main floor lobby that connects only the main floor will be modified with an addition to link the 2nd, 3rd, and 4th floors of both existing residence towers.
   b. The main floor of the link will retain the functions of the existing lobby including reception counter, mail room, staff office and lounge area. Restroom facilities shall be added to this area also.
   c. An elevator will be installed to serve all four floors and the lower level.
   d. The new 2nd, 3rd, and 4th floor links will accommodated the elevator, additional restroom facilities, lounge and study areas, and a kitchenette area.
   e. This addition will have a net increase of 5,539 square feet to the facility.

2. Restroom Renovations:
   a. The existing restroom towers will be completely renovated including the shower, water closets, and sink area.
   b. Adjacent to each restroom, laundry facilities will be installed; relocating them from the existing lower level.

3. Student Program Area:
   a. The existing north apartment will be renovated into a student program area as part of a proposed bid alternate. This space will provide flexible study and lounge space, an open kitchen, and game area for use by all the residents.
   b. The exterior of the north apartment will upgraded with new windows and exterior masonry also as proposed bid alternate.

4. Student Room Renovation:
   a. To achieve improved accessibility, one adjacent student rooms next to each restroom will be incorporated into renovations.
   b. There are existing lounge spaces on the second, third and fourth floors adjacent to the central link. These spaces will be converted back into student rooms as part of a bid alternate.
Description of Mechanical Systems:
1. Plumbing Systems:
   a. Restroom Remodel shall completely replace of all the water closets, showers, sinks and fixtures.
   b. The hot and cold domestic water distribution piping from the mechanical room and through the restrooms will be replaced.
   c. The sanitary sewer service (drain, waste, and vent) serving the bathrooms shall be replaced.
   d. The water softener equipment and domestic hot water heaters in the mechanical room shall be replaced.
2. HVAC Systems:
   a. The existing heating system is baseboard heat. This system will be replaced with a four pipe hydronic system for heating and cooling to fan coil units located in each student room.
   b. Ventilation air will be distributed to each student room.
   c. Ventilation and exhaust systems for the bathrooms and restrooms will be replaced.
   d. The link addition will be heated and cooled by installation of an air handling unit to serve this central link.
3. Fire Protection:
   a. Fire sprinkler systems shall be installed throughout the facility; designed to comply with NFPA 13 and NFPA 14.

Description of Electrical Systems:
1. Electrical modifications to distribution panel boards will occur to accommodate power needs for new lighting and outlets, central link addition, new laundry locations, replacement ventilation and exhaust systems, and new HVAC systems.
2. Fire alarm and notification system will be modified to accommodate the installation of the new fire sprinkler system.

See Appendix for floor plans and elevation views.

Project Timeline:

Project proposed schedule includes phased construction as follows:

1. January 2015: Architect to complete the construction documents
5. May 2016 to August 2016: Fire Sprinkler and HVAC upgrades for east wing of building. This includes installation of the heating and cooling equipment located in the lower level.
6. May 2017 to August 2017: Fire Sprinkler and HVAC upgrades for west wing of building
7. August 1, 2017: Substantial Completion

It is anticipated that students will occupy all four floors of both residence hall wings during the 2015-2016 and 2016-2017 academic years. Modifications will be made to existing entrances for life safety egress. Temporary accommodations will be made for staff service desk, staff office and mail distribution.
B. Changes from Facility Program Plan

The following items noted in the Facility Program Plan will not be part of this project.

1. Replacement of fire detectors and wiring will not occur. The main fire protection panel was upgraded three years ago. The existing system will be modified to handle the new fire sprinkler system, renovated areas, and new central link.

2. Enclose fire escapes on the west and east ends of the building. This was identified as a secondary priority in the Facility Program Plan.

3. Flooring replacement in the entire building will not occur. New vinyl composite flooring was installed ten years ago. Flooring replacements will be limited to areas being fully renovated.

4. Modify all student bedroom closets and doors will not occur. This work will occur on designated student rooms as described to meet accessible guidelines.

C. Impact to Existing Building or Campus Wide Heating/Cooling/Electrical Systems

Electrical Distribution:
Electrical loads in the building will be accommodated with the existing building transformer. No modifications to the medium voltage distribution system is anticipated.

Impact to Existing Tunnels (and associated utilities):
The hydronic heating systems and domestic hot water system utilizes existing the central steam service. Equipment and building controls will improve building efficiency. No significant impact is anticipated to the steam distribution system.

Chilled Water System:
Chilled water system passes directly through the building. The cooling requirements for the central link will be accommodated through the central system. No significant impact is anticipated with this addition.

Water:
New water service line with backflow prevention and meter was installed in 2012. The line is sized to handle the domestic water capacity for the building. No modifications are anticipated to this service.

The installation of the fire sprinkler system will requirement a dedicated 6” service line to be extend from the existing water main located on the south side on of the building.

Sanitary Sewer:
No significant modifications will be required to exterior sanitary service.

Storm Sewer:
The building is not served by any storm sewer system. It is expected that this project will not modify existing storm sewer infrastructure adjacent to the building site.
D. Total Estimated Construction Costs:

The total project cost is estimated to be approximately $9,750,000 for the design and construction of the facilities including utility infrastructure. Cost breakdowns are shown in the following table.

<table>
<thead>
<tr>
<th>Facility Construction</th>
<th>$7,648,506</th>
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</thead>
<tbody>
<tr>
<td>Contingency*</td>
<td>$611,880</td>
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<tr>
<td><strong>Total Construction Costs</strong></td>
<td><strong>$8,260,386</strong></td>
</tr>
<tr>
<td>Facility Design Costs</td>
<td>$1,480,627</td>
</tr>
<tr>
<td><strong>TOTAL PROJECT COST ESTIMATE</strong></td>
<td><strong>$9,741,013</strong></td>
</tr>
</tbody>
</table>

NOTE: 8% Owner Contingency.

Through design development process construction documents will be developed to contain the project with in the $9,750,000 budget.

Project funding is as follows:

- 2014 Bond Re-financing $2,000,000
- 2014 New Debt Issued $5,000,000
- Re-prioritized M&R FY16 and FY17 M&R $536,000
- Remaining Bond Proceeds (2011 Bond Issue) $464,000
- Bond Proceeds Interest Income $750,000
- 2015 Bond Call Re-financing Bond $1,000,000

**TOTAL FUNDING** $9,750,000

The bond funds are supported by room rent increases assessed to Brown Hall.

E. Changes from Cost Estimates for Operation or M&R Expenses

Impact to M&R:

Based on recognized industry standards, the annual funding for maintenance and repair/capital renewal funding should be equal to 1.5-3% of the project costs or the building replacement value. Budget figures for the annual M&R allocation are based on current cost estimates, which are between $149,557 and $299,114.

Budget for ongoing operational costs:

The Updated Residential Life and Dining Services Master Plan placed annual operating expenses at $5 per gross square foot. With the design plan identified above, operating expenses will increase from by $27,695 for the building addition.

Operating expenses for the air conditioning and ventilation upgrades will have a cost of $1.00 per gross square foot; $60,607 for all of Brown Hall (60,607 existing GSF).

Total increase to operational costs will be $88,302.
## Brown Hall Renovation Project Financials—November 2014

<table>
<thead>
<tr>
<th>Res Hall Room Rental Rates</th>
<th>New Brown Hall Rate Scenario</th>
<th>Revenue gain per bed</th>
<th>Total Revenue gain 2 sem.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Brown Hall Rate</td>
<td>$1,607.20</td>
<td>$1,892.60</td>
<td>$285.40</td>
</tr>
<tr>
<td>Current Mathews Hall Rate</td>
<td>$1,892.60</td>
<td>2,496.50</td>
<td>$889.30</td>
</tr>
<tr>
<td>Current Caldwell Hall Rate</td>
<td>$2,337.30</td>
<td>2,194.55</td>
<td>$587.35</td>
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<tr>
<td>PROPOSED</td>
<td>Brown Hall Rate-1/2 way between Mattews/Caldwell</td>
<td>$2,194.55</td>
<td>$587.35</td>
</tr>
</tbody>
</table>

### Resources for the Brown Hall Project

2014 New Debt to Auxiliary System: $7,000,000

- Debt Serviced by bond Refi*: $2,000,000
- 2014 New Debt already issued: $5,000,000

### Resources Available

- FY 16 M & R: $286,000
- FY 17 M & R: $250,000
- 2009 & 11 Bond Proceeds Interest Income (Cash avail): $750,000
- New Debt to Auxiliary System: $1,000,000

**Total Resources Available:** $9,750,000

### Notes

- *Savings in interest rates pays for the additional bond debt
- Residential Hall System has $1,500,000 annual resources for M & R
- Jackrabbit Grove Project complete & freeing up project funds
- Add to 2016 bond call refinancing bond
- Coverage Ratio with $1,000,000 additional Debt:
  - The System Coverage Ratio will change (decrease) by .02 during the next two years until Brown Hall produces revenue at the new rates then increase Ratio by no less than .10 (one tenth)