

DESCRIPTION OF INTERIM CAPITAL PROJECT FOR CONSIDERATION

June 7, 2018

CLEMSON UNIVERSITY

PROJECT NAME: Daniel Hall Renovation and Expansion

REQUESTED ACTION: Establish Project (Phase I)

REQUESTED ACTION AMOUNT: \$1,000,000 (2.2%)

Internal Estimated Cost: \$45,000,000

PREVIOUS CHE ACTIONS: N/A

DESCRIPTION:

Clemson University requests to establish a project to renovate and expand the Daniel Hall general classroom building. The current building is approximately 68,000 SF and the University plans to expand the facility by approximately 75,000 SF. Over the years, the building has become functionally deficient. Alternatives, including a complete gut renovation and two-phase plan, were considered but would have caused major disruption to the campus and students. This project was included on the 2017 CPIP as priority 5 of 7 for the current fiscal year 2017-18.

The Phase I pre-design budget is requested at 2.22% of the estimated project cost and the additional amount will allow the university to provide for additional field investigation on the existing facility and for site investigations for utilities. It will also provide the preconstruction services of a construction manager at risk.

The source of funds for Phase I will be Maintenance and Stewardship Funds. In total the University plans to use \$15M of Maintenance and Stewardship Funds. As of April 30, 2018 the uncommitted balance was \$31,957,748. The remainder of the project budget will be funded from State Institution Bonds, totaling \$30M and financed over 20-years. Based on the current design and construction schedule, the University expects to issue the bonds in 2020. The funding combination reflects the University strategic approach to cash and debt financing of capital improvements. As a large portion of the project entails renovation and reinvestment, Maintenance and Stewardship Funds in the form of cash investment represents the cost to renovate the existing space.

The renovations will include upgrading the HVAC and fire protection systems, improving accessibility, replacing exterior doors, improving the auditorium and repainting classroom walls. The expansion will include constructing new classrooms, a new 220-seat auditorium, and informal learning spaces. The current feasibility study indicates approximately 36 classrooms will be added in addition to the renovation of the 42 current spaces. In aggregate, the classrooms will create approximately 1,500 seats, and approximately 87 offices will be created to accommodate graduate students and faculty.

E&G MAINTENANCE NEEDS:

Daniel Hall has had minimal renovations since it was constructed in 1969 and has a current building score of 65. Systems addressed as part of the project include the HVAC (original to the building), Electrical, Fire Protection, and Plumbing. Over the last three years, Clemson has invested \$200,000 annually in preventative maintenance of Daniel Hall, and expects the total for the current fiscal year to increase to approximately \$225,000.

ADDITIONAL ANNUAL OPERATING COSTS/SAVINGS:

The expanded footprint is expected to incur additional operating costs in the areas of utilities and maintenance. Increased costs are expected to begin in FY2021 at \$487,500 and are estimated to increase 3% each subsequent year.

Institution Name:	<u>Clemson University</u>	Respondent:	<u>Michael Smith</u>
Building Number:	<u>222</u>		<u>Name</u>
Building Name:	<u>Daniel</u>	Telephone:	<u>864-643-6161</u>
Location:	<u>Clemson University</u>	E-Mail:	<u>smichae@clermson.edu</u>
Gross Square Feet:	<u>38,172</u>		
Year Const / Renov:	<u>1969</u>		
Replacement Cost:	<u>\$11,798,400</u>		

Comments: Owned Fee Simple

Please do not enter data in the cells below this line. Begin data entry on Page 2.					
	System Avg. Score	Multiplier	System % of Building	Current % Value Bldg.	
Foundation	2.000	0.800	x	0.13	= 0.1040
Exterior Walls	2.000	0.800	x	0.13	= 0.1040
Floor	2.000	0.800	x	0.07	= 0.0560
Roof	2.833	0.550	x	0.07	= 0.0385
Interior Walls	2.000	0.800	x	0.03	= 0.0240
Windows	2.000	0.800	x	0.02	= 0.0160
Doors	2.400	0.680	x	0.01	= 0.0068
Ceiling	2.000	0.800	x	0.03	= 0.0240
Heating	3.750	0.275	x	0.10	= 0.0275
Cooling	4.000	0.200	x	0.10	= 0.0200
Plumbing	2.111	0.767	x	0.08	= 0.0613
Electrical	2.500	0.650	x	0.08	= 0.0520
Elevators	1.333	0.933	x	0.01	= 0.0093
Safety	2.500	0.650	x	0.05	= 0.0325
Design Standards	2.000	0.800	x	0.09	= 0.0720
Agency Rating:				1.00	0.648

Replacement Cost:	\$11,798,400
Building Condition:	65
Maintenance Need Over 20 Years:	\$4,129,440

Bldg. Avg. Grade	Condition Code	Condition Multiplier	Difference
1	Satisfactory	1.00	
2	Remodel A	0.8	-0.2
3	Remodel B	0.5	-0.3
4	Remodel C	0.2	-0.3
5	Replace	0.00	-0.2

Building Name: Daniel

Building Number: 222

Foundation 1 - 2 - 3 - 4 - 5		Rating
Cracked Walls	2	
Foundation Settlement	2	
Foundation Deterioration	2	
Design Load	2	
Average		2

Exterior Wall System 1 - 2 - 3 - 4 - 5		Rating
Physical Condition	2	
Waterproofing	2	
Caulking	2	
Pointing	2	
Code Compliance	2	
Insulation	2	
Maintainability	2	
Painting	2	
Average		2

Floor System 1 - 2 - 3 - 4 - 5		Rating
Structural Condition	2	
Maintainability	2	
Floor Finish	2	
Vibration	2	
Fire Rating	2	
Design Load	2	
Average		2

Roof System 1 - 2 - 3 - 4 - 5		Rating
Physical Condition	4	
Leaks	3	
Drainage	3	
Insulation	3	
Fire Rating	2	
Design Load	2	
Average		2.8333
Age of Roof Cover:	1988	
Type of Roof Cover:	2 ply	
Flat:	x	
Pitched:		

Interior Wall System 1 - 2 - 3 - 4 - 5		Rating
Physical Condition	2	
Strength & Stability	2	
Acoustical Quality	2	
Appearance	2	
Adaptability	2	
Maintainability	2	
Average		2

Window System 1 - 2 - 3 - 4 - 5		Rating
Physical Condition	2	
Appearance	2	
Functional Ability	2	
Infiltration	2	
Maintainability	2	
Average		2

Door System 1 - 2 - 3 - 4 - 5		Rating
Door Leaf	2	
Frame	2	
Hardware	3	
Security	2	
Fire Rating	3	
Average		2.4

Ceiling System 1 - 2 - 3 - 4 - 5		Rating
Structural Condition	2	
Accoustical	2	
Accessibility	2	
Appearance	2	
Average		2

Heating System 1 - 2 - 3 - 4 - 5		Rating
Heating Capacity	2	
Temperature Control	4	
Noise Level	4	
Air Circulation & Vent	4	
Reliability	4	
Reasonable Energy Consumption	4	
Filtration	4	
Humidity	4	
Average		3.75
Age of System:	1969	
Heating Capacity-BTUs:	#####	

Cooling System 1 - 2 - 3 - 4 - 5		Rating
Cooling Capacity	4	
Reasonable Energy Consumption	4	
Temperature	4	
Noise Level	4	
Air Circulation & Vent	4	
Reliability	4	
Filtration	4	
Humidity	4	
Average		4
Age of System:	1969	
Cooling Capacity-Tons:	368	

Plumbing System 1 - 2 - 3 - 4 - 5		Rating
Water Pressure & Supply Quantities	2	
Sanitation Hazards or Cross Functions	2	
Drain & Waste Function	2	
Fixture Quantities	2	
Fixture Types & Cond.	3	
Wheel Chair Fixtures	2	
Restroom Facilities	2	
Roof Drainage	2	
Site Drainage	2	
Average		2.1111

Electrical System 1 - 2 - 3 - 4 - 5		Rating
Safety Conditions	3	
Service Capacity	3	
Panel Capacity	3	
Convenience Outlets	2	
Light Levels	2	
Fixtures	3	
Emergency Power	2	
Exit Lighting	2	
Average		2.5

Elevator System 1 - 2 - 3 - 4 - 5		Rating
Size & Number	1	
Maintainability	2	
Code Compliance	1	
Average		1.3333

Safety Standards 1 - 2 - 3 - 4 - 5		Rating
Means of Egress	2	
Fire Ratings	3	
Extinguishing Systems	3	
Detection & Alarm Sys.	3	
Lighting Systems	2	
Handicap Access	2	
Average		2.5

Design Standards 1 - 2 - 3 - 4 - 5		Rating
Flexible Design	2	
Suitable for Present Use	2	
Gross to Assignable Area	2	
Average		2

FOR DEPARTMENT USE ONLY

CHE _____
 JBRC _____
 SFAA _____
 JBRC Staff _____
 ADMIN Staff _____
 A-1 Form Mailed _____
 SPIRS Date _____
 Summary _____

(For Department Use Only)

SUMMARY NUMBER

FORM NUMBER

PERMANENT IMPROVEMENT PROJECT REQUEST

1. AGENCY .
 Cod H12 Name Clemson University
 Contact Person John McEntire Phone 864-656-1238

2. PROJECT
 Project # _____ Name Daniel Hall Renovation and Expansion
 Facility # _____ Facility Name Daniel Hall

County Code	39
New/Revised Budget	\$1,000,000.00

Project Type	Construct Add Fac (70%) Renovate (30%)
Facility Type	Academic

3. CPIP PROJECT APPROVAL FOR CURRENT FISCAL Y
 CPIP priority number 5 of 7 for FY 2017-18

4. PROJECT ACTION PROPOSED (Indicate all requested actions by checking the appropriate boxes.)

Establish Project		Decrease Budget		Close Project	
Establish Project - CPIP	X	Change Source of Funds		Change Project Name	
Increase Budget		Revise Scope		Cancel Project	

5. PROJECT DESCRIPTION AND JUSTIFICATION
 (Explain and justify the project or revision, including what it is, why it is needed, and any alternatives considered. Attach supporting documentation/maps to fully convey the need for the request.)

This request is to establish a project for Phase I pre-design to renovate the 68,000 square foot Daniel Hall general classroom building and expand the facility by approximately 75,000 square feet. The renovations will include upgrading the HVAC and fire protection systems, improving accessibility, replacing exterior doors, improving the auditorium and repainting classroom walls. The expansion will include constructing new classrooms, a new 220-seat auditorium, and informal learning spaces.

Daniel Hall was constructed in 1969 and has had minimal renovations since. It is the principal classroom building for and affects nearly every undergraduate student during their enrollment. While Daniel Hall has been well maintained and is in good condition, a complete renovation has not been possible due to heavy course loads and therefore, it is functionally deficient. The expansion will free up the current space and allow renovation without having a detrimental impact on classroom availability and utilization. Since Daniel Hall's construction, enrollment has increased from 6,700 to more than 24,300 students and is projected to grow another 20% over the next ten years. Expansion is needed to support growing enrollment and to address limited classroom availability and high utilization throughout campus. It will also allow for continuing core undergraduate instruction in an effective learning environment without disruptions from the existing facility's renovation.

Several alternatives were considered but found to be disadvantageous. A comprehensive gut renovation of Daniel Hall was considered, but to bring the building up to modern instructional and space standards would have required substantial structural retrofits and a new building envelope and would cost more than construction of a new building. Also, a two-phase plan with new construction and renovation similar to the proposed scope was evaluated but was determined to be more expensive and more disruptive to the campus and students. The proposed project will enable Clemson to achieve economies of scale and efficiencies while minimizing disruption to students.

6. OPERATING COSTS IMPLICATIONS
 Attach Form A-49 if any additional operating costs or savings will result from this request. This includes costs to be absorbed with current funding.

7. ESTIMATED PROJECT SCHEDULE AND EXPENDITURES
 Estimated Start Date: May-18 Estimated Completion Date: June 2022
 Estimated expenditures: Thru current FY: \$ _____ After current FY: \$ 1,000,000.00

8. ESTIMATES OF NEW/REVISED PROJECT COSTS

PROJECT # _____

- 1. _____ Land Purchase ----> Land: _____ Acres
- 2. _____ Building Purchase ----> Floor Space: _____ Gross Square Feet
- 3. \$1,000,000.00 Professional Services Fees
- 4. _____ Equipment and/or Materials ----> Information Technology \$ _____
- 5. _____ Site Development
- 6. _____ New Construction ----> Floor Space: _____ Gross Square Feet
- 7. _____ Renovations - Building Interior --> Floor Space: _____ Gross Square Feet
- 8. _____ Renovations - Utilities
- 9. _____ Roofing - _____ Roof Age
- 10. _____ Renovations - Building Exterior
- 11. _____ Other Permanent Improvements
- 12. _____ Landscaping
- 13. _____ Builders Risk Insurance
- 14. _____ Other Capital Outlay
- 15. _____ Labor Costs
- 16. _____ Bond Issue Costs
- 17. _____ Other: _____
- 18. _____ Contingency

\$ 1,000,000.00 TOTAL PROJECT BUDGET

ENVIRONMENTAL HAZARDS

Identify all types of significant environmental hazards (including asbestos, PCB's, etc.,) present in the project and the financial impact they will have on the project.

Type: _____

Cost Breakdown

Design Services \$ _____

Monitoring \$ _____

Abate/Remed \$ _____

Total Costs \$ _____

9. PROPOSED SOURCE OF FUNDING

Source	Previously Approved Amount	Increase/Decrease	Original/Revised Budget	Change from 2015/16	Rev. Object Code	Expend. AID Number	Rev. Sub Fund	Exp. Sub Fund
(0) Capital Improvement Bonds, Gr ____					8115		3043	3043
(1) Dept Capital Improvement Bonds Gr ____					8115		3143	3143
(2) Institution Bonds								3235
(3) Revenue Bonds								3393
(4) Excess Debt Service Type								3497
(5) Capital Reserve Fund					8895		3603	3603
(6) Appropriated State Program Source -					8895	68800100	1001	3600
(7) Federal						78800100		5787
(8) Athletic						88800100		3807
(9) Other (Specify) Maintenance and Stewardship Funds			\$ 1,000,000.00		7221	98800100	4193	3907
TOTAL BUDGET	\$	\$	\$ 1,000,000.00					

10. SUBMITTED BY:

Brett Dalton
 Signature of Authorized Official and Title

Brett A. Dalton, Executive Vice President for Finance and Operations

2-23-18
 Date

11. APPROVED BY:

(For Department Use Only)

Authorized Signature and Title

 Date

Revised 2/23/16

**ADDITIONAL ANNUAL OPERATING COSTS/SAVINGS
RESULTING FROM PERMANENT IMPROVEMENT PROJECT**

1. AGENCY
Code H12 Name Clemson University

2. PROJECT
Project # _____ Name Daniel Hall Renovation and Expansion

3. ADDITIONAL ANNUAL OPERATING COSTS/SAVINGS. (Check whether reporting costs or savings.)

XX COSTS SAVINGS NO CHANGE

4.

TOTAL ADDITIONAL OPERATING COSTS/SAVINGS				
Projected Financing Sources				
(1)	(2)	(3)	(4)	(5)
Fiscal Year	General Funds	Federal	Other	Total
1) FY 21-22	\$	\$	\$487,500.00	\$487,500.00
2) FY 22-23	\$	\$	\$502,125.00	\$502,125.00
3) FY 23-24	\$	\$	\$517,188.00	\$517,188.00

5. If "Other" sources are reported in Column 4 above, itemize and specify what the other sources are (revenues, fees, etc.).

University Operating Funds

6. Will the additional costs be absorbed into your existing budget? XX YES NO
If no, how will additional funds be provided?

7. Itemize below the cost factors that contribute to the total costs or savings reported above in Column 5 for the first fiscal year.

<u>COST FACTORS</u>	<u>AMOUNT</u>
1. <u>Utilities</u>	<u>\$243,750.00</u>
2. <u>Maintenance</u>	<u>\$243,750.00</u>
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
TOTAL	<u>\$487,500.00</u>

8. If personal services costs or savings are reported in 7 above, please indicate the number of additional positions required or positions saved.

9. Submitted By:  2-23-18
Signature of Authorized Official and Title Date

**PERMANENT IMPROVEMENT PROJECT INFORMATION FORMAT
FOR PHASE I A&E PRE-DESIGN PROJECTS**

**Daniel Hall Renovation and Expansion
February 26, 2018**

1. What is the internal projected cost of the project? \$45,000,000
2. What is/are the source(s) of funds to be used for A&E pre-design?

Maintenance and Stewardship Funds

3. What is your agency/institution's definition of the source(s) of funds used for the A&E pre-design?
(Please be specific for each source and if there is a statutory authority authorizing the use of the funds for capital projects for the source, please cite the code section. If a source includes any type of fee, what is the fee called, what is the fee amount and when was it put in place?)

Maintenance and Stewardship Funds are tuition, matriculation and other debt retirement and plant transfers revenues that are not formally obligated to fund debt service in the current period and that are responsibly transferred to and managed by the State Treasurer until the time of their State Treasurer approved qualified use.

4. What is the current fund balance of uncommitted funds in the source of funds for A&E pre-design?

Maintenance and Stewardship Funds as of 4/30/18 - \$31,957,748

5. What is the source(s) of funds to be used for construction?

State Institution Bonds and Maintenance and Stewardship Funds

6. What is your agency/institution's definition of the source(s) of funds to be used for construction?
(Please be specific for each if different from those in 3 above. If there is statutory authority authorizing the use of the funds for capital project, please cite the code section and if a source includes a fee, what is the fee called, what is the fee amount and when was it put in place?)

State Institution Bonds are long-term debt instruments issued by the State Treasurer's Office in the name of the University and are pledged to be repaid with tuition fees.

Maintenance and Stewardship Funds are tuition, matriculation and other debt retirement and plant transfers revenues that are not formally obligated to fund debt service in the current period and that are responsibly transferred to and managed by the State Treasurer until the time of their State Treasurer approved qualified use.

7. What is the current fund balance of uncommitted funds in each source to be used for construction?

There is currently no bond balance for State Institution Bonds. The bond resolution will be submitted for approval by the Joint Bond Review Committee and State Fiscal Accountability Authority concurrently with Phase II construction budget approval.

Maintenance and Stewardship Funds as of 4/30/18 - \$31,957,748

8. Will the use of any funds for A&E pre-design or for construction require an increase in any student fee or tuition?

No student tuition or fee increase will be required for pre-design or construction of this project. Existing tuition and fees, include the FY 17-18 increase, are sufficient to cover any costs associated with this project.

9. If the use of any funds for A&E pre-design or construction will require any student fee or tuition increase, please explain and include the amount of the fees annually or by semester, what the fee is called and when it was put in place.

No student tuition or fee increase will be required for pre-design or construction of this facility. Existing tuition and fees, include the FY 17-18 increase, are sufficient to cover any costs associated with this project.

10. What is the total square footage of the building to be renovated or constructed?

The existing facility to be renovated is approximately 68,000 square feet. The expansion to be constructed will be approximately 75,000 square feet.

11. If a portion of the building is to be renovated, what is the square footage of the portion that will be included in the renovation? N/A

12. What program(s) will use the space to be renovated/constructed?

Daniel Hall serves as the principal classroom building for undergraduate students and is used by a wide variety of disciplines for instruction, including Physics, Mathematical Sciences, School of Computing, English, Communications Studies, and Language Studies.

13. What is the current age of the building to be renovated?

Daniel Hall was constructed in 1969 and is 49 years old.

14. What is the current age of the building system(s) to be renovated or replaced? 49 years old

15. If any new space is being added to the facility, please provide demand/usage data to support the need.

Since Daniel Hall was constructed in 1969, the University's total enrollment has grown 360% from 6,700 students to more than 24,300 students and nearly every undergraduate student takes classes in Daniel Hall during their enrollment. Currently, more than 10,000 students take approximately 40,000 credit hours in Daniel Hall and enrollment is projected to grow another 20% over the next ten years, creating a 40,000 square foot deficit of general classroom space. Currently, two-thirds of Daniel Hall's classrooms and labs are used at or near full capacity during the day for classes and during the evenings for student clubs and Academic Success Center tutoring. The current intensity of use leaves little remaining capacity to serve the anticipated enrollment growth. The expansion will free up the current space and allow necessary renovations without having a detrimental impact on classroom availability and utilization. Further, the additional space will support growing enrollment and address limited classroom availability and high utilization of instructional spaces throughout campus.

16. If the A&E pre-design request is above 1.5% of the internal estimated cost of the project, what is the reason the amount exceeds 1.5%?

The Phase I pre-design budget request is 2.22% of the estimated project cost. The additional amount will allow the University to provide for additional field investigation on the existing facility and for site

investigations for utilities. It will also provide the preconstruction services of a construction manager at risk.

17. What are the estimated numbers of students, faculty, staff and/or clients that are expected to use the space affected by the project or for the entire building? (Answer for as many as are applicable.)

The expanded building will be used by approximately 14,650 students taught by approximately 370 faculty. The administrative space in the expanded facility will provide office space or work stations for 161 employees.

18. Has the project been included in a previous year's CPIP? If so, what was the last year the project was included and for which year, 1-5? 2016 and 2017 CPIP, Year One

19. What are the economic impacts of the project, including job creation and retention? If there are none, please explain.

The economic impact of this project will be substantial. Approximately \$45 million in construction will mean a significant number of architects, engineers, builders and tradesmen.

20. How will your agency/institution address and fund maintenance of this facility construction/renovation?

The University has a comprehensive maintenance stewardship fund as well as a designated fund for maintenance, repair and renovation. Annual prioritization resulting from objective building assessments determines the planned investments in asset stewardship on a building by building and project by project basis. The University targets balances for this maintenance stewardship fund required to adequately protect the physical assets of the University. It is a long-range planning tool/fund and, in that respect, the planned balances match the anticipated needs for annual and long-range stewardship.

21. If your agency/institution has a deferred maintenance account, what is the name of the account and what is its current uncommitted balance?

The University has Maintenance and Stewardship Funds (MSF) comprised of tuition, matriculation, and other debt retirement and plant fund revenues that are restricted to support capital investments and that are not formally obligated to fund debt service in the current period. These funds are consciously planned for maintenance and renovation needs and are responsibly transferred to and managed by the State Treasurer until the time the State Treasurer approves a qualified use of these funds. As of 4/30/18, the balance in the MSF held by the State Treasurer and not currently committed to identified capital projects is \$31,957,748.

22. If how maintenance will be addressed and funded for this facility construction/renovation has not been determined yet, what steps are in place to begin to address how your agency/institution will fund maintenance to this and other agency/institution facilities?

N/A – See response to question 20.