

CapitalBudgetRequest

Construct Life Sciences and Engineering Building/ Renovate Bull Run Hall - Equipment

Overview

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|--|--|
| Agency | George Mason University (247) |
| Project Code | 18000 |
| Project Title | Construct Life Sciences and Engineering Building/ Renovate Bull Run Hall |
| Project Type | New Construction |
| Biennium | 2024-2026 |
| Budget Round | Initial Bill |
| Bill Version | Regular Session |
| Request Type | Previously Approved |
| Project Location | Northern Virginia |
| Facility/Campus | GMU--Prince William campus |
| Source of Request | |
| Infrastructure Element | |
| Contains O & M costs? No | |
| Contains significant technology costs? No | |
| Contains significant energy costs? No | |
| Possible that project will be used by other than a state or local governmental entity, or for research under sponsored programs (higher education)? No | |

Agency Narrative

Agency Description

Project #247-18000 is a previously approved project. This Capital Request is for furnishings & equipment (FF&E) funding for the project.

The Life Sciences and Engineering Building Project (also known as Construct Bull Run Hall IIIB Addition) is a response to George Mason University's (GMU) growth and need for additional highly specialized instructional labs, classrooms, and support spaces. The Project will be located at GMU's Prince William County Science and Technology (SciTech) Campus. The design is comprised of a 133,000 GSF, four-story building sited immediately north of the Institute for Advanced Biomedical Research (IABR), with an additional total 5,000 ASF of backfill at Katherine G. Johnson Hall and Discovery Hall.

The Project will support the increasing graduate level curriculum focused on science, technology, engineering, and health. The primary users of the Project will be the College of Engineering and Computing, the College of Science, the College of Education and Human Development, and the College of Visual and Performing Arts. The program mainly consists of highly specialized, multi-disciplinary spaces that will be used by multiple user groups and are not specifically assigned to or controlled by any one discipline or College/School. The final space program, as defined by the participants from the various groups, will not be organized by departments, but rather around the following typologies:

- Instructional Wet Labs and Support
- Instructional Wet Labs – Bio Chem Intensive
- Instructional Cadaver Labs and Support
- Instructional Dry Labs and Support
- Instructional Computer Labs
- Virtual Reality, Animation, and Support
- Human Performance
- Student Design Spaces
- University Classrooms and Meeting Spaces
- Building Support Spaces

The project is currently in the construction phase. Construction began in the summer of 2023, and building occupancy is planned for early

2025.

Justification

Project #247-18000 is a previously approved project. This Capital Request is for furnishings & equipment (FF&E) funding for the project.

The estimated completion date of construction- 07/31/2024

Methodology

Funding Request

| Phase | Year | Subobject | Fund | Amount |
|--------------------|------|--------------------------------|----------------------|-------------|
| Equipment Purchase | 2025 | 2295 - Undistributed Equipment | 01000 - General Fund | \$9,040,000 |
| Total | | | | \$9,040,000 |

Project Costs

| Cost Type | Requested Funding |
|---|--------------------|
| Acquisition Cost | |
| Building & Built-in Equipment | |
| Sitework & Utility Construction | |
| Construction Cost Total | |
| DESIGN & RELATED SERVICE ITEMS | |
| Design & Related Services Total | |
| INSPECTION & TESTING SERVICE ITEMS | |
| Inspection & Testing Services Total | |
| PROJECT MANAGEMENT & OTHER COST ITEMS | |
| Project Management & Other Costs Total | |
| Furnishings & Movable Equipment | \$9,040,000 |
| Construction Contingency | |
| TOTAL PROJECT COST | \$9,040,000 |

Size and Scope

| Cost Type | Unit of Measure | Units | Cost Per Unit |
|--------------------|-----------------|-------|---------------|
| Acquisition Cost | | 0 | \$0 |
| Construction Cost | | 0 | \$0 |
| Total Project Cost | | 0 | \$0 |

Supporting Documents

| File Name | File Size | Uploaded By | Upload Date | Comment |
|--|-----------|-------------|-------------|---------|
| revised Funding Report (1).pdf | 173,371 | Alex Iszard | 6/21/2023 | |

Workflow History

| User Name | Claimed | Submitted | Step Name | Submit Action |
|-------------|---------------------|---------------------|------------------------------|---------------------------|
| Alex Iszard | 06/21/2023 03:29 PM | 06/21/2023 03:29 PM | Enter Capital Budget Request | Submit for Agency Review |
| Alex Iszard | 06/22/2023 01:08 PM | 06/22/2023 01:08 PM | Agency Review Step 1 | Ready for DPB Bulk Submit |
| | | | Ready for DPB Submission | |

Capital Budget Request

| Real Estate Acquisitions Phase 2 (Vernon Smith Hall) | |
|--|-------------------------------|
| Overview | |
| Agency | George Mason University (247) |
| Project Code | none |
| Project Type | Acquisition |
| Biennium | 2024-2026 |
| Budget Round | Initial Bill |
| Bill Version | Regular Session |
| Request Type | New Project |
| Project Location | Northern Virginia |
| Facility/Campus | GMU--Arlington campus |
| Source of Request | |
| Infrastructure Element | Acquisition |
| Contains O & M costs? Yes | |
| Contains significant technology costs? No | |
| Contains significant energy costs? No | |
| Possible that project will be used by other than a state or local governmental entity, or for research under sponsored programs (higher education)? Yes | |
| Agency Narrative | |
| <p>Agency Description</p> <p>Real Estate Acquisitions Phase 2 (Vernon Smith Hall)</p> <p>This request seeks authorization for the acquisition of Vernon Smith Hall directly adjacent to the Mason Square Campus. This is the second phase in a multiphase strategic acquisition strategy for the University. Real Estate Acquisitions Phase 1 was previously approved by the BOV of George Mason University. The total project cost for this acquisition is \$107,000,000.</p> <p>The George Mason University Foundation (GMUF) built Vernon Smith Hall (VSH) a 205,363 square feet office building located at 3434 North Washington Boulevard in Arlington VA in 2006. The property also includes a 671-space underground parking garage. The square footage for the garage is not included in the square footage value above. The construction of the building was financed with \$69.8 million dollars of taxable debt. Unlike most other properties GMUF holds, VSH will not revert back to the GMU. This is because the building was not built on state property and was a stand alone purchase/construction for GMUF. Because of this, GMUF could potentially sell the building to a 3rd party.</p> <p>The GMU Arlington Campus consists of Hazel Hall, Van Metre Hall, and the under-construction Fuse Building set to be complete in 2025. In addition, VSH owned by GMUF, is an important component of George Mason University's "Arlington Campus" and currently houses the University's Institute for Humane Studies, Mercatus Center, College of Humanities and Social Science, College of Visual and Performance Arts, Jimmy and Rosalynn Carter School for Peace and Conflict Resolution, and the Schar School of Policy and Government.</p> <p>Justification</p> <p>The building is located on the Mason Square campus and the university already utilizes ~78k sf of the space for University purposes, in addition to leasing 430 parking spaces that serve broader Mason Square campus needs.</p> <p>The property is currently connected to Van Metre Hall by a pedestrian bridge and a second bridge will be constructed to be connected by a pedestrian bridge to the new FUSE building currently under construction. The property is a critical component of future development of the Mason Square campus.</p> <p>Mason's intention is to purchase the building from GMUF for ~\$107M. This purchase will take place without additional debt to Mason, GMUF, or the Commonwealth. Upon settlement, GMUF would retire ~\$42M of debt that is currently considered in Mason's credit rating analysis as a component unit of the University. Retiring the outstanding debt removes debt service obligations from the property's cash flow analysis, and</p> | |

also creates additional financial flexibility for the university's critical deferred maintenance and potential future capital projects.

Purchasing the property with NGF funds serves the dual purpose of drawing down fund balances while providing flexible space for future needs. These potentially include incubation space for start-ups drawn to the innovation district in the Rosslyn-Ballston technology corridor anchored by FUSE or even redevelopment to provide needed housing for Mason's faculty, staff, and students.

Methodology

Value is based upon appraisals received. O&M split is based upon current E&G usage in lease space.

Funding Request

| Phase | Year | Subsubject | Fund | Amount |
|--------------|------|----------------------------------|------------------------------|---------------|
| Full Funding | 2025 | 2411 - Unallotted Capital Amount | 03060 - Auxiliary Enterprise | \$107,000,000 |
| Total | | | | \$107,000,000 |

Project Costs

| Cost Type | Requested Funding |
|---|----------------------|
| Acquisition Cost | \$107,000,000 |
| Building & Built-in Equipment | |
| Sitework & Utility Construction | |
| Construction Cost Total | |
| DESIGN & RELATED SERVICE ITEMS | |
| Design & Related Services Total | |
| INSPECTION & TESTING SERVICE ITEMS | |
| Inspection & Testing Services Total | |
| PROJECT MANAGEMENT & OTHER COST ITEMS | |
| Project Management & Other Costs Total | |
| Furnishings & Movable Equipment | |
| Construction Contingency | |
| TOTAL PROJECT COST | \$107,000,000 |

Size and Scope

| Cost Type | Unit of Measure | Units | Cost Per Unit |
|--------------------|-----------------|---------|---------------|
| Acquisition Cost | Square Foot | 205,363 | \$521 |
| Construction Cost | | 0 | \$0 |
| Total Project Cost | | 0 | \$0 |

Operating and Maintenance Costs

| Cost Type | FY 2025 | FY 2026 | FY 2027 | FY 2028 | FY 2029 | FY 2030 |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|
| GF Dollars | \$744,792 | \$687,248 | \$703,549 | \$714,738 | \$743,327 | \$773,060 |
| NGF Dollars | \$1,108,674 | \$1,021,584 | \$1,151,307 | \$1,062,447 | \$1,104,945 | \$1,149,144 |
| GF Positions | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NGF Positions | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| GF Transfer | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| GF Revenue | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Layoffs | 0 | 0 | 0 | 0 | 0 | 0 |

Planned start date of new O&M costs (if different than the beginning of the fiscal year):01/10/2023

Supporting Documents

| File Name | File Size | Uploaded By | Upload Date | Comment |
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| Workflow History |
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| User Name | Claimed | Submitted | Step Name | Submit Action |
|-------------|---------------------|---------------------|------------------------------|---------------------------|
| Alex Iszard | 06/20/2023 09:11 AM | 06/20/2023 09:11 AM | Enter Capital Budget Request | Continue Working |
| Alex Iszard | 06/20/2023 09:11 AM | 06/21/2023 09:28 AM | Continue Drafting | Submit for Agency Review |
| Alex Iszard | 06/21/2023 09:28 AM | 06/22/2023 11:09 AM | Agency Review Step 1 | Continue Review |
| Alex Iszard | 06/22/2023 01:11 PM | 06/22/2023 01:12 PM | Agency Review Step 1 | Ready for DPB Bulk Submit |
| | | | Ready for DPB Submission | |

Capital Budget Request

| Construct Student Innovation Factory Building (Resubmission) | |
|---|-------------------------------|
| Overview | |
| Agency | George Mason University (247) |
| Project Code | none |
| Project Type | New Construction |
| Biennium | 2024-2026 |
| Budget Round | Initial Bill |
| Bill Version | Regular Session |
| Request Type | Previously Submitted |
| Project Location | Northern Virginia |
| Facility/Campus | GMU--Fairfax campus |
| Source of Request | |
| Infrastructure Element | |
| Contains O & M costs? Yes | |
| Contains significant technology costs? No | |
| Contains significant energy costs? No | |
| Possible that project will be used by other than a state or local governmental entity, or for research under sponsored programs (higher education)? No | |
| | |
| Agency Narrative | |
| <p>Agency Description</p> <p>This \$37M request includes a Student Innovation Factory Building that is preceded by an Engineering and Science Sector Planning Study, currently in progress. The new construction capital project is the first building recommended as part of the Sector Study, and will be followed by or constructed concurrently with a new Interdisciplinary Science and Engineering academic building under a separate budget request.</p> <p>The new Student Innovation Factory Building included in this request will be the first of several phases identified in the implementation plan for the Sector study. The Student Innovation Factory Building will be an approximately 60K GSF industrial-style pre-engineered or equivalent building to house student project space as required by CEC and COS for capstone coursework and student competition project work (e.g. sustainability projects, concrete canoe, bridge, robotics, solar car, Baja car), and other large format student design and innovation projects. Building size determination was based on comparable projects at other Research 1 institutions. The Student Innovation Factory Building will be a single story, high-bay, flexible, open warehouse space, suitable for developing and testing of land-, air- and water-based student projects. The building program will include open shop/project space, with limited enclosed tool/project storage, as well as code-based building support spaces. Site selection for this building was driven by proximity to the campus central plant in support of student project work relating to sustainability and energy efficiency, and also to leverage resources and support available by the adjacent Facilities shops.</p> <p>This project was previously submitted as FY22 and FY23 Capital Budget Requests.</p> <p>Justification</p> <p>Construction of the new Student Innovation Factory Building will implement Phase 1 of the Engineering and Science Sector study as a continuation of Mason's 20-year Master Plan. Mason does not presently have dedicated student project space on either campus, resulting in ad-hoc erection of temporary structures, typically in and around the Facilities Maintenance complex or leased space off-site. Student capstone projects and design competitions have increasingly gained momentum in most undergraduate STEM degree programs as part of learn-by-doing pedagogies, resulting in increased need for dedicated, secure, weatherproof project space to store tools and works in progress. Student project space included in lease space adjacent to the SciTech campus will continue to serve as interim space for undergraduate student project pending construction of the Student Innovation Factory Building on Fairfax for this purpose. The interim space currently requires an average of one-hour commute time from the primary location of their academic programs on Fairfax, placing an undue burden on these students, many of whom do not possess cars and are reliant on limited shuttle services between campuses.</p> <p>ABET Engineering Accreditation Commission, Criteria for Accrediting Engineering Programs requires at Criterion 5 - Curriculum in the program</p> | |

“... must include: a culminating major engineering design experience that 1) incorporates appropriate engineering standards and multiple constraints, and 2) is based on the knowledge and skills acquired in earlier course work.” Further the same accreditation standards require at Criterion 3 - Student Outcomes “... that [students must be able to demonstrate] an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives” (see attached accreditation criteria). Taken together these two requirements are frequently applied by the various engineering programs in the form of a major student team project that extends across one or more semesters. Each program is free to design its own version of the student “culminating experience” that best demonstrates the degree to which student have achieve this outcome. For many programs the culminating design project takes the form of hands-on construction of models, prototypes, pilot plants, scaled structures, and other such constructions that require the need for an adequately equipped and sized Maker Space. As the intent of this accreditation requirement is to demonstrate student’s achievement of the theory and art of engineering, the lack of adequate space for student creative experience can be an impediment to the program. The work that is done in these spaces each year forms the foundation for the assessment of student outcomes which are a fundamental portion of the demonstration to ABET for program accreditation. Letters of support from programs requiring project space in compliance with ABET requirements are included as attachments to provide additional detail regarding this need.

Alternatives evaluated included use of existing ad-hoc space on Fairfax campus, continued use of off-campus lease space near Fairfax, interim shared use of graduate project space near the SciTech campus, and inclusion of project spaces as part of a future academic building on Fairfax campus. As the demand for student project space increases, the use of ad-hoc space within the Fairfax Facilities complex, loading docks, and spaces designated for other uses resulted in increasing operational impacts and didn’t meet the functional requirements for the students requiring those spaces. Suitable lease space near Fairfax campus was not identified, resulting in leasing of interim space near SciTech campus. Although shared project space near the SciTech campus is compatible with the needs of smaller student projects as an interim solution, the transportation burden on undergraduate students and the conflict between undergraduate and graduate student use of those spaces is not sustainable as a permanent solution. Inclusion of project space as part of a future academic building on Fairfax was removed from consideration because the dirty, noisy uses are often in conflict with traditional academic uses, and are more suitable for a considerably lower unit cost pre-engineered building construction. This construction type is additionally suitable to rapid deployment to address Mason’s urgent need.

Methodology

Cost estimating was performed by benchmarking against Mason, peer institution and industry square foot estimates for pre-engineered buildings. Industry references included RS Means and Virginia Department of General Services Bureau of Capital Outlay Management Virginia Building Construction Cost Database. Square foot cost estimates were validated by the Master Planning consulting team and their cost estimators. Mason is prepared to proceed with a design-to-budget approach based on this order-of-magnitude cost estimate, and will confirm actual building square footage upon completion of the Detailed Project Program, in advance of project implementation.

Mason requests planning funds for this project.

| Funding Request | | | | |
|-----------------|------|----------------------------------|----------------------|--------------|
| Phase | Year | Subject | Fund | Amount |
| Full Funding | 2025 | 2411 - Unallotted Capital Amount | 01000 - General Fund | \$37,000,000 |
| Total | | | | \$37,000,000 |

| Project Costs | |
|---|---------------------|
| Cost Type | Requested Funding |
| Acquisition Cost | |
| Building & Built-in Equipment | \$25,450,000 |
| Sitework & Utility Construction | \$3,365,000 |
| Construction Cost Total | \$28,815,000 |
| DESIGN & RELATED SERVICE ITEMS | |
| A/E Basic Services | \$2,470,000 |
| A/E Reimbursables | \$35,000 |
| Specialty Consultants (Food Service, Acoustics, etc.) | \$224,000 |
| CM Design Phase Services | \$45,000 |
| Subsurface Investigations (Geotech, Soil Borings) | \$35,000 |
| Land Survey | \$35,000 |
| Other Design & Related Services | \$56,000 |
| Design & Related Services Total | \$2,900,000 |
| INSPECTION & TESTING SERVICE ITEMS | |
| Project Inspection Services (inhouse or consultant) | \$135,000 |

| | |
|--|---------------------|
| Project Testing Services (conc., steel, roofing, etc.) | \$135,000 |
| Inspection & Testing Services Total | \$270,000 |
| PROJECT MANAGEMENT & OTHER COST ITEMS | |
| Project Management (inhouse or consultant) | \$235,000 |
| Work By Owner | \$123,000 |
| BCOM Services | \$67,000 |
| Moving & Relocation Expenses | \$78,000 |
| IT Cabling | \$336,000 |
| Signage | \$22,000 |
| Utility Connection Fees | \$168,000 |
| Utility Relocations | \$168,000 |
| Commissioning | \$168,000 |
| Project Management & Other Costs Total | \$1,365,000 |
| Furnishings & Movable Equipment | \$2,300,000 |
| Construction Contingency | \$1,350,000 |
| TOTAL PROJECT COST | \$37,000,000 |

Size and Scope

| Cost Type | Unit of Measure | Units | Cost Per Unit |
|--------------------|-----------------|--------|---------------|
| Acquisition Cost | | 0 | \$0 |
| Construction Cost | GSF | 60,000 | \$480 |
| Total Project Cost | GSF | 60,000 | \$617 |

Operating and Maintenance Costs

| Cost Type | FY 2025 | FY 2026 | FY 2027 | FY 2028 | FY 2029 | FY 2030 |
|---------------|---------|---------|---------|---------|-----------|-----------|
| GF Dollars | \$0 | \$0 | \$0 | \$0 | \$612,000 | \$612,000 |
| NGF Dollars | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| GF Positions | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NGF Positions | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| GF Transfer | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| GF Revenue | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Layoffs | 0 | 0 | 0 | 0 | 0 | 0 |

Planned start date of new O&M costs (if different than the beginning of the fiscal year):---

Supporting Documents

| File Name | File Size | Uploaded By | Upload Date | Comment |
|---|-----------|-------------|-------------|--|
| BIOE Needs for an additional Shop Makerspace.pdf | 139,440 | Tobi Walsh | 6/22/2023 | Departmental support letter and justification of need. |
| Letter to support Stud Innov Factory Bldg ME Sept21.pdf | 187,649 | Tobi Walsh | 6/22/2023 | Departmental support letter and justification of need. |
| E001-21-22-EAC-Criteria.pdf | 228,388 | Tobi Walsh | 6/22/2023 | ABET accreditation requirements for proposed space. |
| Excerpts from Mason Master Plan.pdf | 1,512,421 | Tobi Walsh | 6/22/2023 | Excerpts from Mason Master Plan for project justification. |
| 2023_06_22_cr-1 Student Innovation Factory.xlsx | 3,600,778 | Tobi Walsh | 6/22/2023 | CR-1 |

Workflow History

| User Name | Claimed | Submitted | Step Name | Submit Action |
|------------|---------------------|---------------------|------------------------------|--------------------------|
| Tobi Walsh | 06/21/2023 01:43 PM | 06/21/2023 01:43 PM | Enter Capital Budget Request | Continue Working |
| Tobi Walsh | 06/21/2023 01:44 PM | 06/21/2023 02:23 PM | Continue Drafting | Submit for Agency Review |
| Tobi Walsh | 06/21/2023 02:25 PM | 06/21/2023 02:30 PM | Agency Review Step 1 | Continue Review |
| Tobi Walsh | 06/22/2023 09:35 AM | 06/22/2023 09:39 AM | Agency Review Step 1 | Continue Review |
| | | | Agency Review Step 1 | |

Capital Budget Request

Construct Interdisciplinary Science & Engineering Building 1 (Resubmission)

Overview

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|--|-------------------------------|
| Agency | George Mason University (247) |
| Project Code | none |
| Project Type | New Construction |
| Biennium | 2024-2026 |
| Budget Round | Initial Bill |
| Bill Version | Regular Session |
| Request Type | Previously Submitted |
| Project Location | Northern Virginia |
| Facility/Campus | GMU--Fairfax campus |
| Source of Request | |
| Infrastructure Element | |
| Contains O & M costs? Yes | |
| Contains significant technology costs? No | |
| Contains significant energy costs? No | |
| Possible that project will be used by other than a state or local governmental entity, or for research under sponsored programs (higher education)? No | |

Agency Narrative

Agency Description

This \$165M project is an approximately 150K GSF interdisciplinary science and engineering building on the Fairfax campus. This building would provide replacement space for the future demolition of David King and Planetary Science Halls, and be the second phase of development needed to address a critical specialized instructional laboratory deficiency identified as part of Mason's recent 20-year Master Planning study. The building program includes predominantly specialized instructional wet and dry laboratory spaces, along with classrooms, collaboration and academic support spaces. The primary occupants of this new interdisciplinary building would be the College of Engineering and Computing, the College of Science, the College of Education & Human Development and the College of Visual and Performing Arts.

The building would be 5-7 stories in height, and would respond to architectural elements of existing academic buildings within the campus core. It would frame a new central quad as a primary gathering space in the heart of the Fairfax campus, opposite the Johnson Student Center. Site selection allows for construction of the new building prior to demolition of 2 adjacent buildings (David King and Planetary Science Halls) with critical facility indices. Demolition of these 2 adjacent buildings is not included in the scope of this request, but would be phased in to reveal the new central quad. Circulation elements would be integrated with the new building program, based on concepts identified in Mason's 20-year Master Plan as part of the vision for the central quad (see excerpts of the Master Plan attached).

This project was previously submitted as FY22 and FY23 Capital Budget Requests.

Justification

Mason recently completed a 20-year Master Plan, which identified significant laboratory and instructional space need on Fairfax campus for the College of Engineering and Computing (CEC) and the College of Science (COS), among others (see attached Master Plan report excerpts). Excerpts from the Phase 1 Master Planning Study Report relevant to this Capital Budget Request are included as attachment to this request. This study included the most comprehensive data-driven analysis of Mason's enrollment projections, facilities and building condition assessment, benchmark analysis, space use and space needs to date. Summary results show that nearly every specialized instructional space on Fairfax campus is impacted, with most wet specialized instructional spaces currently at twice the recommended SCHEV standards for utilization. Space need projections over the next 20 years indicated that specialized instructional space was the single greatest academic space need on Mason's campus, followed closely behind by classroom space. Mason's growth projections indicate that competition for these spaces would continue to increase as we target 4,000 additional in-person students over the next 5 years to provide access to education for the Commonwealth's increasing population and respond to strategic initiatives such as Virginia's Tech Talent Investment Program (TTIP).

Mason's capital plan submissions for over a decade prior to 2020 included a \$75M request for a 100K GSF renovation of Planetary Hall (previously known as Science and Tech I), and a \$94M request for an 86K GSF renovation and 60K GSF addition of David King Hall. In 2020, Mason deferred these two requests pending completion of a new 20-year Master Plan and further in-depth analysis of these two buildings. Based on the current Facility Condition Index (FCI) of 64.88% and 51.92% for Planetary and David King Halls, respectively, recommendations were to replace rather than renovate these two buildings. Replacement and future removal of these two aging buildings could provide opportunities to incorporate sustainable design and current active-learning environments, which would not be as cost effective through renovation due to the inadequacy of the building infrastructure and systems. For example, conversion or renovation of existing space for use as a wet laboratory is quite complex, and limitations of building systems serving that space may not meet project requirements, resulting in costs in excess of replacement. Strategic siting of replacement buildings as part of the Master Planning study allowed phasing of the proposed new building to lessen impacts to existing occupants of David King and Planetary Halls prior to demolition. Additionally, the Master Plan includes significant circulation enhancements with a central pedestrian corridor traversing the primary axis of the campus which is presently impeded by David King and Planetary Halls, but would be revealed upon future demolition of these structures.

Alternatives evaluated included relocation of programs to Mason's SciTech campus and consideration of off-site lease space. The first alternative entails the "do nothing" option based on Mason's former strategic direction before current Master Planning studies began. However, this option was rejected as part of the strategic decision to consolidate undergraduate programs on Fairfax campus and create a graduate and research identity for SciTech, as part of the current Master Planning study. Lease space is presently used on a limited basis at our SciTech campus, but can be a costly solution especially for specialized wet labs and other labs requiring structural reinforcement for heavy equipment, high clearance, and other non-standard tenant improvements. Lease space near our Fairfax campus is not available. Both alternatives evaluated present significant transportation concerns for undergraduate students, many of whom don't have personal vehicles.

Methodology

Cost estimating was performed by benchmarking against Mason, peer institution and industry square foot estimates for projects of similar size and scope. Industry references included RS Means and Virginia Department of General Services Bureau of Capital Outlay Management Virginia Building Construction Cost Database. Escalation of Mason's Life Science and Engineering Building on SciTech campus, presently in the detailed planning phase, provided the most relevant and accurate cost data benchmark for this nearly identical building on Fairfax campus. The cost per square foot is appropriate for this specialized building with a programmatic element focusing on state-of-the-practice instructional laboratory spaces and equipment. Mason is prepared to proceed with a design-to-budget approach based on this order-of-magnitude cost estimate, and would confirm actual building square footage upon completion of the preplanning (Detailed Project Program and Cost Estimate), in advance of project implementation.

Mason requests planning funding for this capital project request.

Funding Request

| Phase | Year | Subsubject | Fund | Amount |
|--------------|------|----------------------------------|----------------------|---------------|
| Full Funding | 2025 | 2411 - Unallotted Capital Amount | 01000 - General Fund | \$165,000,000 |
| Total | | | | \$165,000,000 |

Project Costs

| Cost Type | Requested Funding |
|--|----------------------|
| Acquisition Cost | |
| Building & Built-in Equipment | \$127,000,000 |
| Sitework & Utility Construction | \$4,950,000 |
| Construction Cost Total | \$131,950,000 |
| DESIGN & RELATED SERVICE ITEMS | |
| A/E Basic Services | \$10,736,000 |
| A/E Reimbursables | \$154,000 |
| Specialty Consultants (Food Service, Acoustics, etc.) | \$220,000 |
| CM Design Phase Services | \$165,000 |
| Subsurface Investigations (Geotech, Soil Borings) | \$72,000 |
| Land Survey | \$55,000 |
| Other Design & Related Services | \$380,000 |
| Design & Related Services Total | \$11,782,000 |
| INSPECTION & TESTING SERVICE ITEMS | |
| Project Inspection Services (inhouse or consultant) | \$605,000 |
| Project Testing Services (conc., steel, roofing, etc.) | \$594,000 |

| | |
|---|----------------------|
| Inspection & Testing Services Total | \$1,199,000 |
| PROJECT MANAGEMENT & OTHER COST ITEMS | |
| Project Management (inhouse or consultant) | \$1,045,000 |
| Work By Owner | \$561,000 |
| BCOM Services | \$297,000 |
| Moving & Relocation Expenses | \$319,000 |
| IT Cabling | \$1,870,000 |
| Signage | \$88,000 |
| Utility Connection Fees | \$440,000 |
| Utility Relocations | \$407,000 |
| Commissioning | \$440,000 |
| Miscellaneous Other Costs | \$963,000 |
| Project Management & Other Costs Total | \$6,430,000 |
| Furnishings & Movable Equipment | \$11,000,000 |
| Construction Contingency | \$2,639,000 |
| TOTAL PROJECT COST | \$165,000,000 |

Size and Scope

| Cost Type | Unit of Measure | Units | Cost Per Unit |
|--------------------|-----------------|---------|---------------|
| Acquisition Cost | | 0 | \$0 |
| Construction Cost | GSF | 150,000 | \$880 |
| Total Project Cost | GSF | 150,000 | \$1,100 |

Operating and Maintenance Costs

| Cost Type | FY 2025 | FY 2026 | FY 2027 | FY 2028 | FY 2029 | FY 2030 |
|---------------|---------|---------|---------|---------|-------------|-------------|
| GF Dollars | \$0 | \$0 | \$0 | \$0 | \$1,454,000 | \$1,454,000 |
| NGF Dollars | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| GF Positions | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NGF Positions | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| GF Transfer | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| GF Revenue | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Layoffs | 0 | 0 | 0 | 0 | 0 | 0 |

Planned start date of new O&M costs (if different than the beginning of the fiscal year):---

Supporting Documents

| File Name | File Size | Uploaded By | Upload Date | Comment |
|---|-----------|-------------|-------------|--|
| Excerpts from Mason Master Plan.pdf | 1,512,421 | Tobi Walsh | 6/22/2023 | Excerpts from Mason Master Plan for project justification. |
| 2023_06_22_cr-1_ISEB1.xlsx | 637,201 | Tobi Walsh | 6/22/2023 | CR-1 |

Workflow History

| User Name | Claimed | Submitted | Step Name | Submit Action |
|------------|---------------------|---------------------|------------------------------|--------------------------|
| Tobi Walsh | 06/21/2023 02:38 PM | 06/21/2023 02:38 PM | Enter Capital Budget Request | Continue Working |
| Tobi Walsh | 06/21/2023 02:38 PM | 06/21/2023 03:02 PM | Continue Drafting | Submit for Agency Review |
| Tobi Walsh | 06/22/2023 09:28 AM | 06/22/2023 10:05 AM | Agency Review Step 1 | Continue Review |
| | | | Agency Review Step 1 | |

Capital Budget Request

| Construct School of Business Building (Resubmission) | |
|--|-------------------------------|
| Overview | |
| Agency | George Mason University (247) |
| Project Code | none |
| Project Type | New Construction |
| Biennium | 2024-2026 |
| Budget Round | Initial Bill |
| Bill Version | Regular Session |
| Request Type | Previously Submitted |
| Project Location | Northern Virginia |
| Facility/Campus | GMU--Fairfax campus |
| Source of Request | Agency Request |
| Infrastructure Element | |
| Contains O & M costs? Yes | |
| Contains significant technology costs? No | |
| Contains significant energy costs? No | |
| Possible that project will be used by other than a state or local governmental entity, or for research under sponsored programs (higher education)? No | |
| | |
| Agency Narrative | |
| <p>Agency Description</p> <p>This \$165M request includes an approximately 150K GSF School of Business (SBUS) building on the Fairfax campus. This building would provide new space for current use and proposed future growth for the School of Business. The building program includes dedicated space to support approximately 6,500 full-time equivalent (FTE) students including approximately 2,000 FTE business majors, approximately 2,000 non-business students and 4% annual planned growth. The building program would include dedicated teaching, collaboration and student engagement space for SBUS, plus replacement space as a result of demolition of Lecture Hall to accommodate the new building site. Replacement space would include one approximately 3,000 ASF and two approximately 1,000 ASF university shared classrooms, along with support space for those classrooms. In 2018, SBUS developed an initial space program for the building to support philanthropic funding efforts, which includes the following elements:</p> <ul style="list-style-type: none"> • Teaching spaces: Technology-rich classrooms, trading rooms, lecture halls, active learning spaces. • Student service spaces: Career services, student success, maker space, student organizations • Engagement spaces: Executive development suite, incubator/start-up space, behavioral research lab, video studio, centers, collaborative workspaces. <p>Building elements identified during the attached 2018 study will inform the conceptual planning study including a Detailed Project Program and cost estimates to support project implementation. This 2018 study was completed to support fundraising for this project, but the building program has since been modified to reflect current fundraising goals and relocation of the project site. The building would be 5-7 stories in height, and would respond to architectural elements of existing academic buildings within the campus core, per the university Master Planning project. It would frame a new north quad as a primary gathering space in the entrance of the Fairfax campus.</p> <p>This project was previously submitted as a FY23 Capital Budget Request.</p> <p>Justification</p> <p>The School of Business (SBUS) boasts Mason's fourth largest enrollment and second largest projected growth of the ten academic units. SBUS additionally supports the second largest undergraduate online program, the largest unit represented in Mason Korea, INTO and Advance programs. However, SBUS notably lacks a dedicated building to support their operations, enrollment and growth, as other smaller units have. SBUS maintains a significant presence on Fairfax for undergraduate programs and Arlington's Mason Square for graduate programs. SBUS at Fairfax presently relies on 44K assignable square feet (ASF) in four shared buildings on campus and 12K ASF in off-campus lease space, all</p> | |

of which have reached capacity. In response to the projected growth, the School launched a fundraising initiative in 2020 with a new building as its major focus. This effort has currently raised over \$13 million to support the proposed building and to expand programming. The proposed new building will be approximately 150K GSF, centrally located to facilitate interdisciplinary collaboration between SBUS and other Mason Units, and a defining element of the northern quad envisioned in Mason's Master Plan.

Alternatives evaluated include expansion of off-campus lease space in the vicinity of Fairfax and Arlington campuses, and relocation of all programs from Fairfax to either Arlington or SciTech campuses. 2020 Master Planning studies confirmed that the presence of undergraduate business programs on Fairfax and graduate programs at Mason Square complement the strategic identities for those campuses. Consolidation to a single campus presented transportation challenges for students and did not permit interdisciplinary studies presently facilitated through a multi-campus presence, thus this option was rejected. Lease space near Fairfax campus is not available, and is not a viable option to support the large projected enrollment growth. This option would additionally cause significant loss of momentum in philanthropic efforts underway to provide the first dedicated building for SBUS. Alternatives considered also included location of a dedicated building outside of the campus core, but was rejected in favor of a central site at the new campus entry established as part of Mason's Master Plan in order to promote interdisciplinary connections and prominent visibility to this donor supported facility.

Methodology

Cost estimating was provided by Cumming, a professional construction cost estimator, as part of site selection and preliminary planning, including cost escalation to a midpoint of construction anticipated for January 2027. The November 2021 cost estimate attached reflects relocation of the project, but does not reflect reduction of the building size in response to revised fundraising goals. Costs submitted as part of this request were documented by email following completion of the Cumming report. Mason is prepared to proceed with a design-to-budget approach based on this order-of-magnitude cost estimate, and would confirm actual building square footage upon completion of the preplanning (Detailed Project Program and Cost Estimate), in advance of project implementation.

§Mason requests planning funding for this capital project request to support ongoing philanthropic efforts. Construction funding will be requested once the fundraising goal of 25 percent (\$41.25M) of total project cost has been reached.

Funding Request

| Phase | Year | Subobject | Fund | Amount |
|--------------|------|----------------------------------|--|---------------|
| Full Funding | 2025 | 2411 - Unallotted Capital Amount | 01000 - General Fund | \$82,500,000 |
| Full Funding | 2025 | 2411 - Unallotted Capital Amount | 03020 - Foundation/Othr Grants/Cntrcts | \$41,250,000 |
| Full Funding | 2025 | 2411 - Unallotted Capital Amount | 03060 - Auxiliary Enterprise | \$41,250,000 |
| Total | | | | \$165,000,000 |

Project Costs

| Cost Type | Requested Funding |
|--|----------------------|
| Acquisition Cost | |
| Building & Built-in Equipment | \$117,100,000 |
| Sitework & Utility Construction | \$12,000,000 |
| Construction Cost Total | \$129,100,000 |
| DESIGN & RELATED SERVICE ITEMS | |
| A/E Basic Services | \$12,500,000 |
| A/E Reimbursables | \$390,000 |
| Specialty Consultants (Food Service, Acoustics, etc.) | \$140,000 |
| CM Design Phase Services | \$140,000 |
| Subsurface Investigations (Geotech, Soil Borings) | \$65,000 |
| Land Survey | \$40,000 |
| Hazmat Survey & Design | \$15,000 |
| Cost Estimating Services | \$50,000 |
| Other Design & Related Services | \$625,000 |
| Design & Related Services Total | \$13,965,000 |
| INSPECTION & TESTING SERVICE ITEMS | |
| Project Inspection Services (inhouse or consultant) | \$430,000 |
| Project Testing Services (conc., steel, roofing, etc.) | \$500,000 |
| Inspection & Testing Services Total | \$930,000 |
| PROJECT MANAGEMENT & OTHER COST ITEMS | |

| | |
|---|----------------------|
| Project Management (inhouse or consultant) | \$780,000 |
| Work By Owner | \$350,000 |
| BCOM Services | \$300,000 |
| Advertisements | \$2,000 |
| Printing & Reproduction | \$3,000 |
| Moving & Relocation Expenses | \$260,000 |
| IT Cabling | \$1,500,000 |
| Signage | \$20,000 |
| Demolition | \$450,000 |
| Hazardous Material Abatement | \$10,000 |
| Utility Connection Fees | \$150,000 |
| Utility Relocations | \$250,000 |
| Commissioning | \$350,000 |
| Miscellaneous Other Costs | \$750,000 |
| Project Management & Other Costs Total | \$5,175,000 |
| Furnishings & Movable Equipment | \$9,380,000 |
| Construction Contingency | \$6,450,000 |
| TOTAL PROJECT COST | \$165,000,000 |

Size and Scope

| Cost Type | Unit of Measure | Units | Cost Per Unit |
|--------------------|-----------------|---------|---------------|
| Acquisition Cost | | 0 | \$0 |
| Construction Cost | GSF | 150,000 | \$861 |
| Total Project Cost | GSF | 150,000 | \$1,100 |

Operating and Maintenance Costs

| Cost Type | FY 2025 | FY 2026 | FY 2027 | FY 2028 | FY 2029 | FY 2030 |
|---------------|---------|---------|---------|---------|---------|-------------|
| GF Dollars | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,564,000 |
| NGF Dollars | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| GF Positions | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NGF Positions | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| GF Transfer | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| GF Revenue | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Layoffs | 0 | 0 | 0 | 0 | 0 | 0 |

Planned start date of new O&M costs (if different than the beginning of the fiscal year):---

Supporting Documents

| File Name | File Size | Uploaded By | Upload Date | Comment |
|--|-----------|-------------|-------------|--|
| School of Business - Site & Programming - 11 June 2018 (1).pdf | 6,411,733 | Tobi Walsh | 6/22/2023 | Limited preplanning study to support donor engagement. Completed prior to final site selection, Master Plan and reduction in building size based on fundraising goals. |
| George Mason Business School ROM - Update - Nov 2021.pdf | 156,818 | Tobi Walsh | 6/22/2023 | 3rd party ROM cost estimate to support donor engagement. Completed after project relocation, but prior to reduction in building size based on fundraising goals. |
| 2023_06_21 cr-1 SBUS.xlsx | 636,753 | Tobi Walsh | 6/22/2023 | CR-1 |

Workflow History

| User Name | Claimed | Submitted | Step Name | Submit Action |
|------------|---------------------|---------------------|------------------------------|---------------------------|
| Tobi Walsh | 06/21/2023 03:13 PM | 06/21/2023 03:13 PM | Enter Capital Budget Request | Continue Working |
| Tobi Walsh | 06/21/2023 03:13 PM | 06/21/2023 03:20 PM | Continue Drafting | Submit for Agency Review |
| Tobi Walsh | 06/21/2023 03:34 PM | 06/22/2023 12:51 PM | Agency Review Step 1 | Continue Review |
| Tobi Walsh | 06/22/2023 01:21 PM | 06/22/2023 01:22 PM | Agency Review Step 1 | Ready for DPB Bulk Submit |
| Tobi Walsh | 06/22/2023 01:25 PM | 06/22/2023 01:25 PM | Ready for DPB Submission | Submit to DPB |
| | | | DPB Review | |

Capital Budget Request

| Aggregated Critical Deferred Maintenance | |
|--|-------------------------------------|
| Overview | |
| Agency | George Mason University (247) |
| Project Code | none |
| Project Type | Improvements-Infrastructure Repairs |
| Biennium | 2024-2026 |
| Budget Round | Initial Bill |
| Bill Version | Regular Session |
| Request Type | Previously Submitted |
| Project Location | Northern Virginia |
| Facility/Campus | Multiple |
| Source of Request | |
| Infrastructure Element | Miscellaneous |
| Contains O & M costs? No | |
| Contains significant technology costs? No | |
| Contains significant energy costs? No | |
| Possible that project will be used by other than a state or local governmental entity, or for research under sponsored programs (higher education)? No | |
| Agency Narrative | |
| <p>Agency Description</p> <p>The University is requesting a capital project to aggregate the critical deferred maintenance. This is the first phase of a three phase effort to clear the critical deferred maintenance shortfall from the projected annual allocation of maintenance reserve. The use of these funds would be spread across the majority of E&G buildings on all campuses. This project would address the following types of projects:</p> <ul style="list-style-type: none"> • Replacement of aging roofs, windows, exterior doors, and repairs to exterior wall systems • Replacement of interior doors, flooring, and ceilings; repairs to existing fire walls; and refresh of interior painting. • Replacement of main electrical equipment, fire alarm systems, fire pumps, and generators; and repairs to existing plumbing and fire suppression systems. • Replacement of heating, cooling, and ventilation equipment, controls, and distribution systems at the end or beyond their useful life. • Replacement of elevators and lifts at the end or beyond their useful life. • Sidewalk and ADA repairs <p>The work to replace the systems identified above would expend a significant fraction if not all of the annual maintenance reserve allocation, leaving little funding availability for other planned maintenance reserve projects. Further detail on the projected costs of critical deferred maintenance by year is included on the attachment. The University will also take the opportunity to look for energy efficiency with the replacement of systems. These efficiencies will be assessed in the electrical equipment, HVAC equipment, and building envelope. Without the investment into these buildings, the buildings will continue to deteriorate to the point where replacement will be necessary. Our goal is to preserve and make efficient use of our existing assets, only building new facilities when growth necessitates new space.</p> <p>Justification</p> <p>Mason is currently the largest public institution in the Commonwealth. Despite servicing the largest number of students, our annual maintenance reserve allocation was an average of 64% less than our next closest peers. The University's buildings are nearing a 30 year average age. It is at this point in the life of a building in which many of the major systems need to be replaced. Mason Facilities has implemented a Facility Condition Assessment Program (FCAP), in which on a 3 year cycle each of our physical buildings are reviewed with eyes on target. The FCAP review assesses the useful life, age, and physical condition of the building elements. Based upon the review, FCAP proposes the maintenance schedule for Mason's physical assets. This FCAP's maintenance schedule has projected that over the next 5 years Mason will have a deficit in funding our critical deferred maintenance for our Education and General (E&G) use buildings of \$36 million assuming our annual maintenance reserve allocation from the Commonwealth stays the same. Mason's average facility condition index (FCI)</p> | |

of our E&G buildings is 20.23% putting us into the (International Facility Management Association) IFMA category of poor.

Methodology

The estimating for this work was done by Mason's Facilities Condition Assessment Program using historical and benchmark cost data for similar work either preformed at Mason or performed at other institutions and cost adjusted for the Northern Virginia region.

Funding Request

| Phase | Year | Subsubject | Fund | Amount |
|--------------|------|----------------------------------|----------------------|---------------------|
| Full Funding | 2025 | 2411 - Unallotted Capital Amount | 01000 - General Fund | \$36,000,000 |
| Total | | | | \$36,000,000 |

Project Costs

| Cost Type | Requested Funding |
|--|---------------------|
| Acquisition Cost | |
| Building & Built-in Equipment | \$30,030,000 |
| Sitework & Utility Construction | |
| Construction Cost Total | \$30,030,000 |
| DESIGN & RELATED SERVICE ITEMS | |
| A/E Basic Services | \$2,904,502 |
| A/E Reimbursables | \$24,204 |
| Specialty Consultants (Food Service, Acoustics, etc.) | \$45,000 |
| Hazmat Survey & Design | \$50,000 |
| Value Engineering Services | \$45,000 |
| Cost Estimating Services | \$65,000 |
| Other Design & Related Services | \$150,000 |
| Design & Related Services Total | \$3,283,706 |
| INSPECTION & TESTING SERVICE ITEMS | |
| Project Inspection Services (inhouse or consultant) | \$200,000 |
| Project Testing Services (conc., steel, roofing, etc.) | \$100,000 |
| Inspection & Testing Services Total | \$300,000 |
| PROJECT MANAGEMENT & OTHER COST ITEMS | |
| Project Management (inhouse or consultant) | \$615,895 |
| Work By Owner | \$45,000 |
| BCOM Services | \$450,000 |
| Advertisements | \$5,000 |
| Moving & Relocation Expenses | \$75,000 |
| IT Cabling | \$45,000 |
| Commissioning | \$150,000 |
| Project Management & Other Costs Total | \$1,385,895 |
| Furnishings & Movable Equipment | |
| Construction Contingency | \$1,000,399 |
| TOTAL PROJECT COST | \$36,000,000 |

Size and Scope

| Cost Type | Unit of Measure | Units | Cost Per Unit |
|--------------------|-----------------|-------|---------------|
| Acquisition Cost | | 0 | \$0 |
| Construction Cost | | 0 | \$0 |
| Total Project Cost | | 0 | \$0 |

Supporting Documents

| File Name | File Size | Uploaded By | Upload Date | Comment |
|--|-----------|-------------|-------------|---------|
| Aggregated Critical Deferred Maintenance.pdf | 57,523 | Alex Iszard | 6/22/2023 | |
| dgs-30-199_02-28-23_cr-1_ACDM_6.22.2023.xlsx | 636,921 | Alex Iszard | 6/22/2023 | |

Workflow History

| User Name | Claimed | Submitted | Step Name | Submit Action |
|-------------|---------------------|---------------------|------------------------------|---------------------------|
| Alex Iszard | 06/22/2023 09:45 AM | 06/22/2023 09:45 AM | Enter Capital Budget Request | Continue Working |
| Alex Iszard | 06/22/2023 09:45 AM | 06/22/2023 10:38 AM | Continue Drafting | Submit for Agency Review |
| Alex Iszard | 06/22/2023 10:39 AM | 06/22/2023 10:40 AM | Agency Review Step 1 | Continue Review |
| Alex Iszard | 06/22/2023 01:13 PM | 06/22/2023 01:15 PM | Agency Review Step 1 | Ready for DPB Bulk Submit |
| | | | Ready for DPB Submission | |