University of Alabama System
Board Rule 415 (2/2005)
Board Submittal Checklist Criteria

*** Board Submittal Checklist No. 3**
Capital Project – Stage III Submittal and Budget Reallocation/1
(Architectural Design and Budget Reallocation)

Campus: The University of Alabama
Project Name: Math and Science Education Building Renovation
UA Project #: 034-19-2011
Meeting Date: September 5 – 6, 2019

☒ 1. Completed Board Submittal Checklist No.3
☒ 2. Transmittal Letter to Chancellor from Campus President requesting the project be placed on the agendas for the forthcoming Physical Properties Committee and Board of Trustees (or Executive Committee) meetings
☒ 3. Proposed Resolution requesting approval of the Revised Scope and Budget and the Project Design by the Board of Trustees (Architectural Design and authority to proceed with final construction documents)
☒ 4. Campus correspondence/photographs providing supplemental project information
☒ 5. Executive Summary of Proposed Capital Project /2
☒ 6. Project Summary (Brief description of project and materials of construction)
☒ 7. Project Planning Report /2
☒ 8. Architectural renderings of project (Final design prior to the initiation of construction documents on the project)
☒ 9. Campus map(s) showing location of project site
☐ 10. Final Business Plans (if applicable) /3

Prepared by: _____

Approved by: Tim Leopard

/1 Reference Tab 3H - Board Rule 415 Instructional Guide
/2 Reference Tab 3E - Board Rule 415 Instructional Guide
/3 Reference Tab 3V - Board Rule 415 Instructional Guide

* Basic documents required for this Board Submittal Package. Include other supporting materials, correspondence, etc., as may be required to fully describe or illustrate project being submitted for approval to Physical Properties Committee and Board of Trustees.

RESOLUTION

MATH AND SCIENCE EDUCATION BUILDING RENOVATION

WHEREAS, in accordance with Board Rule 415, on April 12, 2019, The Board of Trustees of The University of Alabama ("Board") approved the Stage I submittal for the Math and Science Education Building (formerly the Biology Building) Renovation project ("Project") located at 411 Hackberry Lane; and

WHEREAS, the Project will revitalize existing underutilized space near the academic core of campus as well as address the current space challenges that the Department of Physics and Astronomy, Geography, Geology and the New College are experiencing as the programs are currently spread out between Gallalee Hall, Farrah Hall and Smith Hall; and

WHEREAS, the Project will replace space for the Math Technology and Learning Center which will be lost as a result of the demolition of the Tutwiler Annex; and

WHEREAS, the Project will consist of renovation of the 90,095 gross square foot main building that will include asbestos abatement, upgraded mechanical, life safety and security systems and improvements to the 5,540 gsf auditorium; and

WHEREAS, in accordance with Board Rule 415, on June 7, 2019, the Board authorized the University of Alabama ("University") to proceed with architectural services utilizing KPS Group, Inc., Birmingham, Alabama (KPS); and

WHEREAS, upon completion of negotiations with KPS, the University has established a final design fee of 7.2% of the cost of construction for Package A and 5.4% of the cost of construction for Package B plus a 1.25 renovation factor, $28,800 for additional services, less credits in the amount of $15,000 for interior design services rendered by the University and $45,350 for programming; and

WHEREAS, the University is requesting approval of a Budget Reallocation to reflect the final design fee; and

WHEREAS, responsible officials at the University have received renderings for the Stage III submittal and are recommending approval of said design; and

WHEREAS, the Project location and program have been reviewed and are consistent with the University Campus Master Plan, University Design Standards and the principles contained therein; and

WHEREAS, the Project will be funded from Office of Academic Affairs Reserves in the amount of $3,000,000 and from 2019 General Revenue Bonds in the amount of $29,500,000 and the Project will address approximately $13,500,000 in campus deferred maintenance liability; and

WHEREAS, the revised budget for the Project is as stipulated below:

BUDGET:		REVISED
Package A – Early Demolition	$	642,253
Package B – Building Construction	$	23,077,925
Landscaping	$	200,000
Furniture, Fixtures and Equipment	$	2,457,553
Security/Access Control	$	250,000
Telecommunication/Data	$	619,036
Contingency* (10%)	$	2,392,018
UA Project Management Fee** (3%)	$	789,366
Architect/Engineering Fee – Programming	$	112,700
Architect/Engineer Fee*** (~6.63%)	$	1,572,452
Commissioning	$	90,000
Expenses (Geotech, Construction Materials Testing and Special Inspections)	$	100,000
Other Fees and Services (Testing, Advertising, Printing)	$	196,697
TOTAL PROJECT COST	**$**	**32,500,000**

*Contingency is based on 10% of the costs of construction and landscaping.
**UA Project Management Fee is based on 3% of the costs of construction, landscaping and contingency.
***Architect/Engineer Fee is based on 7.2% of the cost of construction for Package A and 5.4% of the cost of construction for Package B plus a 1.25 renovation factor, $28,800 for additional services less credits in the amount of $15,000 for interior design services rendered by the University and $45,350 for programming.

WHEREAS, officials at The University of Alabama have determined that the Board will incur certain costs in connection with the acquisition, construction and installation of the Project prior to the issuance of the Bonds, and the Board intends to allocate a portion of the proceeds of the Bonds to reimburse the Board for certain of the costs incurred in connection with the acquisition, construction and installation of the Project paid prior to the issuance of the Bonds; and

NOW, THEREFORE, BE IT RESOLVED by The Board of Trustees of The University of Alabama that The University of Alabama does hereby declare that it intends to allocate a portion of the proceeds of the Bonds to reimburse the Board for expenses incurred after the date that is no more than sixty days prior to the date of the adoption of this resolution, but prior to the issuance of the Bonds in connection with the acquisition, construction, and installment of the Project. This portion of this resolution is being adopted pursuant to the requirements of Treasury regulations Section 1.150-2(e)

NOW, BE IT FURTHER RESOLVED that:

1. The Stage III submittal for the Project is hereby approved.

2. The Budget Reallocation is approved as stipulated above.

THE UNIVERSITY OF ALABAMA® | *Division of* Finance and Operations
Vice President

MEMO

August 5, 2019

To: Stuart R. Bell

From: Matthew M. Fajack

Subject: Board Item – Action: Stage III and Budget Reallocation submittals:
Math and Science Education Building Renovation
UA Project #034-19-2011

Pursuant to Board Rule 415, on June 7, 2019, The Board of Trustees of The University of Alabama ("Board") authorized the University of Alabama ("University") to proceed with architectural services utilizing KPS Group, Inc., of Birmingham, Alabama (KPS) for the Math and Science Education Building Renovation project ("Project"). Accordingly, the University is requesting approval of a Budget Reallocation to reflect the cost of architectural fees.

Furthermore, pursuant to Board Rule 415, the University has received renderings for the Project and is requesting the Board to consider approval of the Stage III submittal based on the renderings presented.

The Project will be funded from Office of Academic Affairs Reserves in the amount of $3,000,000 and from 2019 General Revenue Bonds in the amount of $29,500,000 for a total Project budget of $32,500,000. The Project will address approximately $13,500,000 in deferred maintenance liabilities.

This Project location and program have been reviewed and are consistent with the Campus Master Plan, University Design Standards, and the principles contained therein. I have attached a Resolution, Executive Summary, Project Planning Report, Project Summary, Renderings and Location map for your review. Subject to your approval, I recommend this item be forwarded to the Chancellor for inclusion as an Action Item on the agenda of the Physical Properties Committee at the Board of Trustees meeting scheduled for September 5 – 6, 2019.

MMF/ccj

pc w/atchmts: Michael Rodgers, Michael Lanier, Tim Leopard, Sommer Coleman, Tony Smith

271 Rose Administration Building | Box 870142 | Tuscaloosa, AL 35487-0142 | 205-348-4530 | Fax 205-348-9633

EXECUTIVE SUMMARY
PROPOSED CAPITAL PROJECT
BOARD OF TRUSTEES SUBMITTAL

Meeting Date: September 5 – 6, 2019

CAMPUS: The University of Alabama, Tuscaloosa, Alabama

PROJECT NAME: **Math and Science Education Building Renovation (formerly Biology Building)**

PROJECT LOCATION: 411 Hackberry Lane

ARCHITECT: KPS Group, Inc., Birmingham, Alabama

THIS SUBMITTAL:	**PREVIOUS APPROVALS:**
☐ Stage I	April 12, 2019
☐ Stage II	June 7, 2019
☒ Stage III	
☒ Budget Reallocation	
☐ Stage IV	

PROJECT TYPE	**SPACE CATEGORIES**	**PERCENTAGE**	**GSF**
☐ Building Construction	Classroom Facilities	39%	41,224
☒ Building Renovation	Classroom Laboratory	16%	9,780
☐ Building Addition	Offices	4%	4,114
☐ Equipment	Common Space/Circulation	22%	22,041
	Building Support	13%	12,936
	Auditorium	6%	5,540
	TOTAL	**100%**	**95,635**

BUDGET		**Current**		**Revised**
Package A – Early Demolition	$	642,253	$	642,253
Package B – Renovation	$	23,077,925	$	23,077,925
Landscaping	$	200,000	$	200,000
Furniture, Fixtures and Equipment	$	2,457,553	$	2,457,553
Security/Access Control	$	250,000	$	250,000
Telecommunication/Data	$	619,036	$	619,036
Contingency* (10%)	$	2,392,018	$	2,392,018
UA Project Management Fee** (3%)	$	789,366	$	789,366
Architect/Engineer Fees – Programming	$	112,700	$	112,700
Architect/Engineer Fee*** (~6.75%/~6.63%)	$	1,601,112	$	1,572,452
Commissioning	$	90,000	$	90,000
Expenses (Geotech, Construction materials Testing and Special Inspections)	$	100,000	$	100,000
Other Fees and Services (Testing, Advertising, Printing)	$	168,037	$	196,697
TOTAL PROJECT COST	**$**	**32,500,000**	**$**	**32,500,000**

*Contingency is based on 10% of the costs of construction and landscaping.
**UA Project Management Fee is based on 3% of the costs of construction, landscaping and contingency.
***Architect/Engineer Fee is based on 7.2% of the cost of construction for Package A and 5.4% of the cost of construction for Package B plus a 1.25 renovation factor, $28,800 for additional services less credits in the amount of $15,000 for interior design services rendered by the University and $45,350 for programming.

ESTIMATED ANNUAL OPERATING AND MAINTENANCE (O&M) COSTS:

(Utilities, Housekeeping, Maintenance, Insurance, Other)

95,635 gsf x ~$6.89/gsf	$	625,089*
TOTAL ESTIMATED ANNUAL O&M COSTS:	**$**	**625,089***

FUNDING SOURCE:

Capital Outlay:

Office of Academic Affairs Reserves	$	3,000,000
2019 General Revenue Bonds	$	29,500,000
O&M Costs:	$	N/A*

* The Math & Science Education Building is an existing Educational and General facility and, as such, O&M costs are already funded from the University's annual operating budget. There is no incremental increase in O & M cost anticipated with this Project.

NEW EQUIPMENT REQUIRED:

RELATIONSHIP & ENHANCEMENT OF CAMPUS PROGRAMS:

The Math and Science Education Building Renovation project ("Project") will address space-bound situations in the sciences departments, such as Physics and Astronomy, Geography, and others. Enrollment growth has forced the department of Physics to reduce the amount of laboratory time in its Introductory Physics courses by more than half. Even with the reduction in lab time they are nearly at saturation level with no room for class/lab expansion without decreasing the amount of faculty/graduate student office space. Physics and Astronomy and Geography have little or no room for growth in faculty offices or research space.

An experiential learning coordination and collaboration space comprised of seminar rooms, classroom, and "maker space" on the 1st floor will be used by the students, advisors, and directors associated with The University of Alabama's ("University") experiential learning programs including undergraduate research, service learning, study abroad programs, and internship programs. In addition, the eTech group will remain on the 1st floor, since they provide technical hardware and software support for the teaching technologies used in the teaching labs on all four floors of the proposed renovated building.

Relocating the Mathematics Technology Learning Center (MTLC) is necessitated by the demolition of Tutwiler, where it is currently located. The MTLC serves 10,000 students per week, nearly 1/3 of the undergraduate student body; such a large number of students cannot be accommodated by existing classroom and computer lab facilities outside the MTLC. The proposed project will allow a relocated MTLC to continue to deliver superior computer-lab-based pedagogy to the 10,000 students per week currently enrolled, as well as allow the MTLC enrollment to grow through increased capacity and through the expansion of the use of the MTLC computer labs in additional courses (Calculus, Linear Algebra, and Differential Equations). The expansion of the use of computer labs in these additional courses will greatly improve their pedagogy. The benefit of the MTLC's computer-based approach is shown in the student passing percentage in MATH 100 when taught in the traditional lecture-based format (in 1999) to the greatly improved passing rate after MATH 100 was taught in the MTLC, starting in 2000. The passing percentage in the traditional lecture-based classes was roughly 40%, while in the computer-based MTLC mode, the passing percentage has risen to 50-80%.

ATTACHMENT NO. 1
Project: Math and Science Education
Building Renovation
BOT Submittals: Stage III and Budget Reallocation
Meeting Date: September 5 – 6, 2019

Project Summary

MATH AND SCIENCE EDUCATION BUILDING RENOVATION

The Biology Building was constructed in 1971, and Biological Sciences resided there for 38 years until, in 2009, the Biological Sciences Departmental main offices and teaching laboratories, along with the majority of the building's faculty, relocated across the street to the new Science and Engineering building (SEC). This project will renovate the building for other academic uses as follows.

The Math and Science Education Building Renovation project ("Project"), located at 411 Hackberry Lane, will involve the renovation of the 90,095 gross square foot (gsf) main building as well as improvements to the adjacent 5,540 gsf Auditorium. The renovation of the main building will include asbestos abatement, interior demolition, upgraded mechanical, life safety and security systems, new elevators, and new classroom AV and network infrastructure. Limited work will be performed on the exterior of the building, which will include the replacement of all windows and reworking the openings to be more consistent with campus architecture, roofing and the demolition of the greenhouse. The building is connected to the Central Thermal Energy System.

The Project will accommodate necessary space to support the relocation of the Math Technology Learning Center (MLTC) along with introductory laboratories for the currently space-bound Departments of Physics and Astronomy, Geography, Geology, and New College.

Specifically, the Project will revitalize existing space in the academic core of campus by repurposing the 3rd and 4th floor to support the relocation of the MTLC that is currently located in the Annex of Tutwiler Residence Hall, which is scheduled for demolition in 2020 as part of the New Tutwiler Residence Hall project. The existing MTLC is fully utilized with teaching and testing being conducted in the same location and currently they are not able to accommodate tutoring and classes during testing periods. The course work in the MTLC is conducted using Emporium pedagogy, the idea that student performance is improved by having students do math rather than watch someone else do math. This Project will support additional courses being offered in this format, which has proven to be effective for both learning and cost. By utilizing two floors, it will provide individual spaces where both teaching and testing can occur at the same time. The geometry of the building is ideally suited for the MTLC as the radial layout allows the instructors and proctors to be centrally located and provides optimal fields of view and sightlines.

The Project will also assist The University of Alabama ("University") with addressing the current space challenges that the Departments of Physics and Astronomy, Geography, Geology, and New College are experiencing. These programs are currently spread out between Gallelee Hall, Farrah Hall and Smith Hall and this Project will consolidate these programs on the 1st and 2nd floor of the renovated facility, which will ultimately free up over 11,000 square feet of space for other program needs. The renovated facility will also support introductory labs with goals to create more elevated learning environments. New spaces allocated for the Physics Department will accommodate the "studio" format, which integrates lectures and labs for a more efficient and valuable academic experience. Additionally, the Geography Department will improve its pedagogy by adding sinks in their new labs for the first time. Special consideration has been given to the flexibility of these spaces to allow for other programs within the University to utilize them upon availability.

The building will be purposefully designed to facilitate student flow due the projected high volume of students that will be coming through the building at class changes. This will be achieved by providing wide corridors, queuing areas, multiple access points to the building from adjacent major corridors in the area, adequate wayfinding, and stair modifications to allow for free flow while still maintaining fire code requirements.

This Project will eliminate approximately $13,500,000 in campus deferred maintenance liabilities. The building is ideal for adaptive reuse given adequate floor to floor heights and the existing heavy structural frame and envelope. Adaptive reuse over new construction will yield the University significant savings over new construction.

THE UNIVERSITY OF ALABAMA SYSTEM
PROJECT PLANNING REPORT
DATE: September 5 - 6, 2019

__ INITIAL REPORT
X INTERIM REPORT
__ FINAL REPORT
2 REPORT NO.

TO: OFFICE OF THE CHANCELLOR
BOARD OF TRUSTEES OF THE UNIVERSITY OF ALABAMA

FROM: OFFICE OF THE PRESIDENT
THE UNIVERSITY OF ALABAMA

1. PROJECT: Math and Science Education Building Renovation

2. LOCATION: 411 Hackberry Lane

3. ARCHITECT/ENGINEER: KPS Group, Inc., Birmingham, Alabama

4. PROJECT STATUS:

A. SCHEMATIC DESIGN	DATE INITIATED	June-19
	% COMPLETE	100%
	* DATE COMPLETED	July-19
B. PRELIMINARY DESIGN:	DATE INITIATED (Projected)	July-19
	% COMPLETE	100%
	* DATE COMPLETED (Projected)	August-19
C. CONSTRUCTION DOCUMENTS:	DATE INITIATED (Projected)	August-19
	% COMPLETE	50%
	* DATE COMPLETED (Projected)	October-19
D. SCHEDULED BID DATE:		November-19

5. CURRENT PROJECT BUDGET:

	CURRENT	REVISED
A. PACKAGE A - EARLY DEMOLITION	$ 642,253	$ 642,253
B. PACKAGE B - RENOVATION	$ 23,077,925	$ 23,077,925
C. LANDSCAPING	$ 200,000	$ 200,000
D. FURNITURE, FIXTURES AND EQUIPMENT	$ 2,457,553	$ 2,457,553
E. SECURITY/ACCESS CONTROL	$ 250,000	$ 250,000
F. TELECOMMUNICATION/DATA	$ 619,036	$ 619,036
G. CONTINGENCY *(10%)	$ 2,392,018	$ 2,392,018
H. UA PROJECT MANAGEMENT FEE** (3%)	$ 789,366	$ 789,366
I. ARCHITECT/ENGINEER FEE-PROGRAMMING	$ 112,700	$ 112,700
J. ARCHITECT/ENGINEER FEE*** (~6.75%/~6.63)	$ 1,601,112	$ 1,572,452
K. COMMISSIONING	$ 90,000	$ 90,000
L. EXPENSES (GEOTECH, CONSTRUCTION MATERIALS TESTING AND SPECIAL INSPECTIONS)	$ 100,000	$ 100,000
M. OTHER FEES AND SERVICES (TESTING, ADVERTISING, PRINTING)	$ 168,037	$ 196,697
N. TOTAL PROJECT COST	**$ 32,500,000**	**$ 32,500,000**

*Contingency is based on 10% of the costs of construction and landscaping.
**UA Project Management Fee is based on 3% of the costs of construction, landscaping and contingency.
***Architect/Engineer Fee is based on 7.2% of the cost of construction for Package A and 5.4% of the cost of construction for Package B plus a 1.25 renovation factor, $28,800 for additional services, less credits in the amount of $15,000 for interior design services rendered by the University and $45,350 for programming.

6. FUNDING/RESOURCES: Office of Academic Affairs Reserves - $3,000,000
2019 General Revenue Bonds - $29,500,000

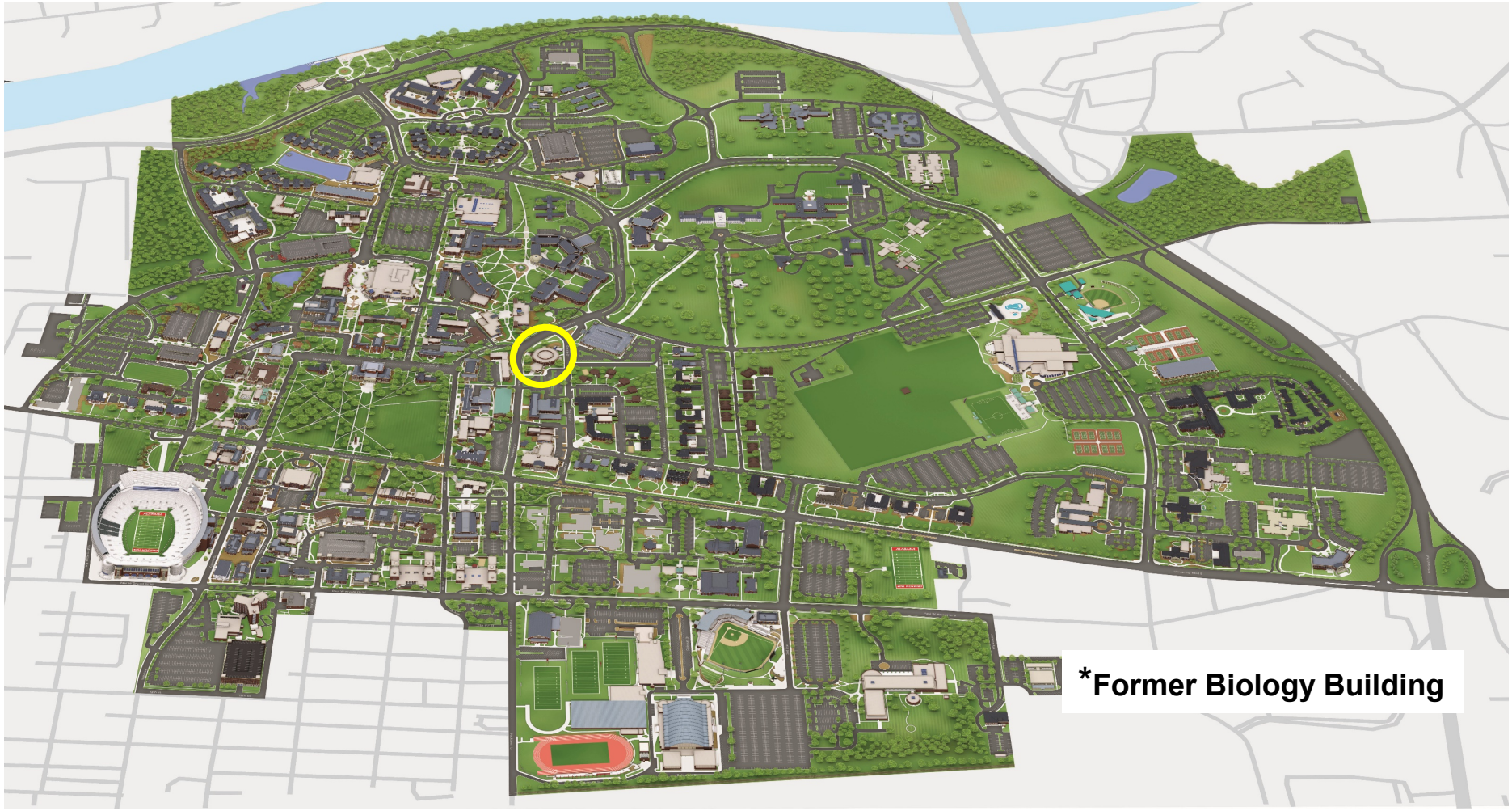
7. REMARKS

* FINAL AGENCY APPROVAL

SUBMITTED BY: Tim Leopard

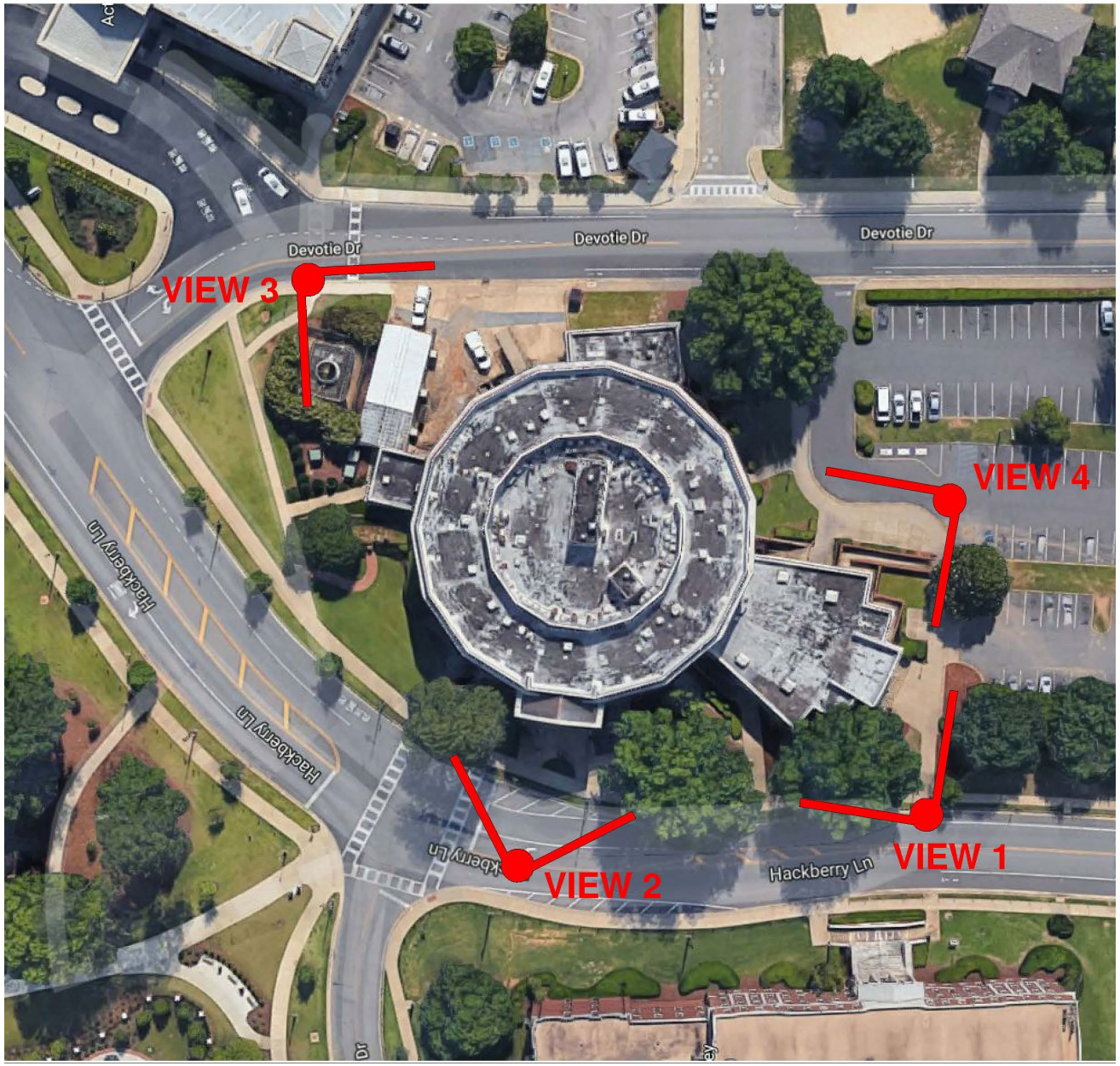
MATH AND SCIENCE EDUCATION BUILDING RENOVATION*

LOCATION MAP



MATH AND SCIENCE EDUCATION BUILDING RENOVATION

Vantage Points



MATH AND SCIENCE EDUCATION BUILDING RENOVATION

Vantage Point 1

Hackberry Lane looking Northeast

MATH AND SCIENCE EDUCATION BUILDING RENOVATION

Vantage Point 2

Hackberry Lane looking East

Existing

MATH AND SCIENCE EDUCATION BUILDING RENOVATION

Vantage Point 2

Hackberry Lane looking East

MATH AND SCIENCE EDUCATION BUILDING RENOVATION

Vantage Point 3

Devotie Drive looking Southwest

MATH AND SCIENCE EDUCATION BUILDING RENOVATION

Vantage Point 4

Southeast looking Northwest

Existing

MATH AND SCIENCE EDUCATION BUILDING RENOVATION

Vantage Point 4

Southeast looking Northwest

MATH AND SCIENCE EDUCATION BUILDING RENOVATION

MASSING

NAME OF BUILDING	HEIGHT FINISH FLOOR TO ROOF RIDGE	WIDTH	DEPTH
New Math and Science Education Building	55 feet	278 feet	205 feet
Existing Math and Science Education Building	55 feet	278 feet	205 feet