Division of Finance and Business Operations

Procurement & Strategic Sourcing
5700 Cass Avenue, suite 4200
Detroit, Michigan 48202
(313) 577-3734
FAX (313) 577-3747

July 19, 2013

Dear Vendors:

Wayne State University invites you to participate in the Request for Proposal process, for Design Services for the **Science and Engineering Lab Classroom (SELC) Building**, for Wayne State University, WSU Project **999-237200**.

Bidding documents may be obtained by vendors from the University Purchasing Web Site at **http://forms.purchasing.wayne.edu/Building_Design.html** beginning **July 19, 2013**. When visiting the Web Site, click on the "**Construction**" link in green.

If you are interested in participating in this process, please fill out and **FAX** the registration/intent form. To participate, it is **MANDATORY** that you and/or responsible representatives of your organization attend our pre-bid conference (Q & A Session) to be held:

July 29, 2013, 10:00 am
Wayne State University
General Lectures Room 0150
5045 Anthony Wayne Drive,
Detroit, MI 48202

The balance of the Calendar of Events is as follows:

Issue RFP	**July 19, 2013**
Mandatory Pre-Bid Conference	**July 29, 2013, 10:00 am**
Secondary walkthrough	(if needed) To be determined at the conclusion of the prebid conference, by those in attendance
Deadline for Questions	**August 2, 2013,** 12:00 noon
Receipt of Bids	**August 9, 2013,** 2:00 p.m.
Award of Contract	25 calendar days after successful bidder qualification and recommendation of award.

For your convenience a map of the University and appropriate parking lots can be downloaded and printed from: **http://campusmap.wayne.edu/** . Guest parking in any of the University student and guest lots is **$6.25**. A detailed list of Cash & Coin operated lots can be viewed at **http://purchasing.wayne.edu/cash_and_credit_card_lots.php** . Cash lots dispense change in quarters. Due to time constraints, Vendors are encouraged to avoid parking at meters on the street. Please confirm your participation and/or attendance at the pre-bid conference by faxing the attached Registration/Intent form to the attention of Ms. Pat Milewski (313) 577-3747 no later than **12:00 noon on July 26, 2013.** Remember, you MUST attend the pre-bid conference in order to be qualified to respond to the bid.

Should you have any questions or concerns about this invitation, please contact me at **(313) 577-3720**. Thank you for your interest in doing business with Wayne State University.

Sincerely,

Valerie Kreher, Senior Buyer

Cc: **Deb Brazen**, Project Manager
Ashley Flintoff, Project Planner
Paula Reyes, **Associate Director**

Attachment

REGISTRATION/INTENT FORM

RFP SELC Building,
PROJECT # 999-237200

Please use this form to indicate your intent to submit a proposal for the services listed. Please type or print the information requested below, then fax to Wayne State University, attention Ms. Pat Milewski at (313) 577-3747 **by July 26, 2013 at 12:00 a. m. (noon).**

Vendor Name: _____

Contact Person: _____

Telephone: **(** **)** _____

E-mail _____

YES_____ I will be attending the **Mandatory** meeting **RFP SELC Building, Project 999-237200 on July 29, 2013 .**

Location: Wayne State University,
5045 Anthony Wayne Drive, **Lecture Room 0150,**
Detroit MI 48202

Time: **10:00 am**

NO_____ **I will not participate in the Request for Proposal and will not be submitting a response.**

I understand that this will not affect our status as a potential supplier to Wayne State University.

Thank you for interest shown in working with Wayne State University.

Valerie Kreher
Senior Buyer

Division of Finance and Business Operations

Request for Proposal

for

Professional Design Services for the

SELC Building

Wayne State University
Procurement & Strategic Sourcing

July 19, 2013

SELC Building
Pre- Proposal Meeting

AGENDA
July 29, 2013 at 10:00 am

1. Welcome to Wayne State University Sign in Sheets (Purchasing)	**Ken Doherty/Paula Reyes**
2. SELC Building Overview	**Deb Brazen**
3. Project Description	**Deb Brazen**
4. RFP Details	**Ken Doherty**

- **Level of effort**
- **Contract**
- **M/WBE participation**
- **Fee Proposal Forms**

4. Reiteration of Instructions	**Ken Doherty/Paula Reyes**
5. Q/A	**Deb Brazen / Ken Doherty/Paula Reyes**

All future questions to be directed to Purchasing by noon on August 2, 2013 to: Valerie Kreher, rfpteam2 copy to Paula Reyes, rfpteam2.

Table of Contents

I. Instructions to Design Professional:

Wayne State University invites teams to submit proposals to provide all necessary professional design services, including specialty consultants, in full compliance with the requirements of the State of Michigan, Major Project Design Manual (dated October 2008), as required for a complete project leading to the construction and occupancy of a new **Science and Engineering Lab Classroom (SELC) Building**.

This Request for Proposal (RFP) defines the requirements and expectations of the project, the expected contract environment, and guidelines for the preparation of proposals for the University's use in selecting a firm for the project. **Enclosed in this fax is the Registration, which is the confirmation of your intent to participate. This form MUST be faxed to (313) 577-3747 Attn: Ms. Pat Milewski, WSU Purchasing Department by July 26, 2013 by 4:30 p.m.**.

Proposals are due before 2:00pm, local time, on August 9, 2013. Proposals received after this time will be rejected. **Six (6) copies** of the proposal are to be submitted in a sealed envelope or box at the University's Purchasing Department.

In addition, an electronic version is required, which should be submitted to our secure mailbox at **rfp@wayne.edu and be sure your subject line reads "(company name) RFP SELC Building Response"**. The electronic submission should be limited to no more than one of each of the following file types: 1 PDF document and/or 1 Word Document and/or 1 Excel Workbook, with a total file size less than **20 megabytes**. If your submission was sent correctly, you will receive an auto-reply message acknowledging receipt of your Proposal. If you do not receive an auto-reply message, check the address you used and resubmit your Proposal. However, in the event a discrepancy exists between the electronic submission and the original copy of the Vendor's Response Proposal, the original copy will prevail.

Proposals shall be addressed to:

SELC Building
Project No. **999-237200**

Valerie Kreher, **Senior Buyer**
Academic/Administration Building
Wayne State University (Purchasing Department)
5700 Cass Avenue, 4th Floor - Suite 4200
Detroit, Michigan 48202

And: E-mail a copy to **RFP@wayne.edu /**
subject line**: "(*company name*) RFP SELC Building Response"**.

All inquiries regarding this Request for Proposal and these two projects shall be made in writing and submitted by e-mail to **Valerie Kreher** at **rfpteam2@wayne.edu** and copied to **Paula Reyes** at **rfpteam2@wayne.edu,** per the project schedule. Inquires directed to other University personnel may result in disqualification.

The proposals will be used to develop a short-list of qualified firms to provide presentations to the project selection committee. The selection of the successful design team will be based on the design professional's response to this RFP and the presentations of selected firms.

II. Project Scope:

As part of Wayne State University's 2020 Campus Master Plan creation in 2001 and subsequent revision in 2008, it was determined that a number of the University's research and laboratory classroom facilities were not performing to meet the standards set by our mission and vision. The University has undertaken a number of internal and external studies and the creation of a Task Force to address this concern. As a result of this effort, three options have presented themselves as viable alternatives to assist in updating the technology and building amenities needed to continue our mission as one of Michigan's premier Science, Technology, Engineering and Math (STEM) educational and research institutions.

Option One involves the construction of a new, general purpose laboratory classroom facility, consisting of (30) laboratory classrooms with associated support space. The new facility, comprised of approximately 45,300 gross square feet, would include relocated classrooms from other facilities and capacity for new classrooms. This facility would be located at the southeast corner of Warren Ave and Third St. Departments included in the new facility would be:

- 11 Physics Classrooms (10 Dry Classrooms + 1 Computer Lab)
- 6 Engineering Classrooms (3 Computer Labs + 3 EE/Dry Classrooms)
- 7 Physiology/Biology Classrooms (4 Dry Classrooms + 3 Wet Classrooms)
- 3 Chemistry Classrooms (3 Wet Classrooms)
- 2 Nutrition and Food Science Classrooms (1 Food Prep + 1 Wet Classroom)
- 1 Psychology Wet Laboratory

Option Two involves the construction of a new, general purpose laboratory classroom and research facility, consisting of (16) laboratory classrooms and (14) research laboratories with associated support space, including a vivarium. This option is comprised of approximately 60,000 gross square feet and includes the demolition of the existing Life Sciences building in order to reuse the footprint. Departments and research facilities included in the new building would be:

- 9 Physics Classrooms (8 Dry Classrooms + 1 Computer Laboratory)
- 5 Biological Sciences Research Laboratories
- 4 Nutrition and Food Science Research Laboratories
- 1 Psychology Classroom (1 Wet Classroom)
- 1 Chemistry Classroom (1 West Classroom)
- 5 Engineering Classrooms (2 Dry Classrooms + 1 Wet Classroom + 2 Computer Laboratories)
- 1 Nursing Research Laboratory
- 4 Unassigned Research Laboratories
- 1 Vivarium (Basement)

Option Three involves the construction of a new, general purpose laboratory classroom and general purpose classroom facility, consisting of (24) laboratory classrooms, (5) active learning teaching rooms and (1) seminar room. The new facility would consist of approximately 45,000 gross square feet and includes relocated classrooms from other buildings as well as new active learning facilities to support interactive learning. This facility would be located at the southeast corner of Warren Ave and Third St. Departments included in the new building would be:

- 10 Physics Classrooms (10 Dry Classrooms)
- 7 Biological Laboratory Classrooms (4 Dry Classrooms + 3 Wet Classrooms)
- 5 Engineering Laboratory Classrooms (3 Dry Classrooms + 2 Wet Classrooms)
- 5 Active Learning Classrooms (2 Large Classrooms + 3 Small Classrooms)
- 1 Small Seminar Room
- 2 Shared Computer Laboratories

Designer's Scope

WSU intends to submit this project to the State of Michigan Capital Overlay for funding on October 29, 2013. This project is considered a high priority and will require a team that can think creatively and adapt to changes quickly and effectively. The first portion of the project will consist of a program validation process for each option listed above, ultimately assisting WSU in determining which option to advance to schematic design and submit to the State.

Once a program has been established, schematic design documentation will be required. According to the requirements of the DMB Major Project Design Manual, deliverables will include but are not limited to:

- Initial life safety and building code analysis,
- programmatic floor plans,
- conceptual building massing and elevations,
- validation of building systems and
- A defensible cost estimate for construction.

III. Design Professional Services and Deliverables: (See attachment Schedule C)

The scope of this project is to establish an independent program for the **SELC Building**.

A. The successful design team will be contracted to provide complete services for the schematic design for the project.
B. The University intends to select one responsive design professional for award of the project.
C. In general, the basic services to be provided by the Design Professional shall include all typical meetings and correspondence to support the activities, all architectural, mechanical, electrical, structural, civil, fire protection, interior design, signage, landscaping, building security, audiovisual systems, acoustical, lighting, telecommunications and cost estimating elements. **NOTE:** The University has a preferred vendor relationship with Siemens for building automation design and programming. Siemens is to be incorporated into all early planning and design activities and will provide, in cooperation with the Design Professional, construction documents to be incorporated into the bid document set necessary to bid building automation requirements.
D. The Design Professional shall assist the University in optimizing the scope of work and provide advice on options regarding the site, scope, materials, methods, systems, schedules, and other conditions affecting development and construction of the project.
E. The Design Professional will comply with the University's current Construction Design Standards and Computing and Information Technology Department (C&IT) Standards for this design process.
F. The professional team selected for this project will be required to produce the following deliverables as part of their scope of work for the project:

1. Program Statement and Presentation Component:
    a. Program goals and objectives for the project.
    b. Preliminary room inventory and data sheets to support the proposed program.
    c. Conceptual block floor plans with relationship demonstrating integration into campus, existing building and building systems as a whole.
    d. List of rooms (spaces) for potential naming opportunities.
    e. Building architecture to be further developed based on feedback received from the University's appointed project committee.
    f. Narrative outlines of the architectural systems describing materials and finish levels, proposed mechanical, electrical, lighting, IT, and security systems as needed to estimate the project costs.

1. Schematic Design:
    a. Evaluation of the three options for a new facility including program validation and cost and construction analysis.
    b. Site and Exterior Space Relationships.

c. Life safety and building code analysis for the chosen option.
d. Programmatic floor plans
e. Building and Construction Systems: Recommendations for structural, mechanical and electrical systems. Basic utilities, including availability, capability, and environmental impact.
f. Project Cost: Estimate for the chosen option, with sufficient detail to support the design intent.
g. Design and Construction Schedule.
h. Drawings and Outline specifications: site plan, floor plans, elevations, sections and outline specifications.
i. LEED Checklist: Indicate anticipated points required to achieve silver certification.
j. Renderings as required to demonstrate design intent.

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NOTE: The University expects the design professional to fully participate in partnering activities throughout the life of the project.

IV. Project Schedule:

The University proposes the following schedule for the designer selection process:

Release of the RFP	**July 19, 2013**
Registration	**July 26, 2013** by 5:00 p.m. Fax Registration Form to: 313-577-3747
Mandatory Pre-proposal Meeting	**July 29, 2013** at **10:00 am** at the **General Lectures**, **Lecture Room 0150**, located at **5045 Anthony Wayne Drive**
Final day / Deadline for Questions	**August 2, 2013** by 12:00 p.m. to: **Valerie Kreher**, **rfpteam2** Copy to **Paula Reyes**, **rfpteam2**
Delivery of Proposals (6 Copies)	**August 9, 2013 by 2:00 p.m.** in the Purchasing Dept., Academic/Administration Bldg., 5700 Cass Avenue, 4th Floor – Suite 4200, Detroit, MI 48202
Short List Announced	Week of **August 19, 2013**
Presentations	* **August 26, 2013**
Selection	Week of **September 3, 2013**
Contract Negotiations and Execution	Week of **September 9, 2013**
Conduct and Complete Project Deliverables	As Stated in Final Contract

* The University reserves the right to adjust this date at its own discretion.

No work shall commence until the contract is fully executed.

V. Proposal Requirements:

All firms responding to this RFP must submit complete responses to the applicable information requested in this section and **clearly note any exceptions to any information contained in the RFP**. Proposals are limited to 30 pages total, one sided, and eleven (11) point font. (This is inclusive of all required documents and schedules and any optional material included at the discretion of the respondent, but tab sheets and the cover pages do not count in the overall document count.) Proposals will be evaluated based upon the selection criteria presented in **Section VI.** Proposals must present information in a clear and concise manner, following the format indicated below:

A. **Executive Summary**:
Provide a one page summary describing your understanding of the project, what unique qualities differentiate your firm from others responding to this Request for Proposal. List all team members by firm name and define their roles for this project. Describe in summary fashion the experience your team has with projects similar to the proposed **SELC Building**, by indicating the use, quantity and cost relative to a time frame (for example, note actual building types completed over the past three years, with an average project cost of over $20M each).

B. **Firm Contact Information and Firm Overview**:

1. Clearly identify the name, address, e-mail and fax numbers of the project representative designated to receive all RFP information, addenda or any other official correspondence relating to the project. Provide a profile of the local office presence and capabilities of the local office to support this project.

2. If a joint venture, list similar information for each firm and the rationale for the joint venture, previous similar experience in a joint venture, previous experience with this joint venture partner, and a summary of the joint venture agreement indicating the roles and responsibilities of each party.

C. **Experience**:
1. Provide detailed information on previous project experience as it may relate to the scope, size and details of this project application. Evidence of previous experience with projects similar in nature and completed within similar environments will be heavily weighted in the selection criteria.
2. Demonstrated expertise and experience in sustainable design practices. Identify experience in utilizing an integrated design approach, life cycle cost analysis, and other practices used by your firm in meeting sustainable design goals. Identify participating team members with appropriate experience, including LEED experience.

D. **Team**:
Identify your company's proposed project team. Include the staff qualifications, biographies, roles and responsibilities that make them ideal candidates for project. Include project experience related to major renovation work and project experience working with the State of Michigan capital outlay process outlined in the Management and Budget Act (MCL 18.1101 through 18.1594).

E. **Approach**:
Describe your team's project approach defining all consultants and their level of involvement, methods of obtaining an understanding of the project and interacting with the customers, and the challenges anticipated in performing the requested services. What distinguishes your team from your competition? What makes your team the best qualified to design these projects for the university?

F. **Schedule**:
Present a milestone schedule for the proposed project. Prepare the schedule in sufficient detail to define major project milestones, and the anticipated overall project duration. Project schedule must indicate that Program Statement and Schematic Design Submission for this project are to be completed no later than **October 29, 2013**.

G. Minority, Woman and Physically-Challenged Owned Business Enterprises (M/W/DBEs)
Specify in your proposal whether ownership of your company is a certified M/W/DBE. Discuss your plans to involve M/W/DBE firms in the project. Indicate if M/W/DBE firms will be as a joint venture or a sub-consultant.

H. **Proposed Fee:**

i. Using the level of effort work plan provided, (Schedule C), indicate proposed fees to complete the work as defined on the worksheet. Include billing rates for all personnel who will work on this project along with estimated hours for each. Identify a line item for estimated reimbursable expenses that is to be included in the total project cost. List and define any other assumed fees, including specialty consultants. Total ALL expenses and hours for the project. The University will not be responsible for math errors made by the vendor.

ii. Specify whether the fee covers all services outlined in this RFP. Proposals should list any items excluded from the services proposed. Proposals should also list those services that should be made a part of this scope of work, but were not requested by the University. In the latter case, provide a proposed fee(s) for those services.

I. **Professional Service Contract:**

The University's design professional contract documents are attached to this RFP for review, (Appendix 3.) Firms are required to completely define language amendment requests within their proposals to prevent contract execution delays. Proposals that are silent on this issue will leave the University to understand that no amendments are requested and the contract documents are acceptable as released herein. Steps taken to negotiate amendments that are not in the proposals may result in the University choosing to contract with another candidate partner.

The University intends to initially award the contract for all work required to complete the program and planning phases to develop a Program and Schematic Planning package for submission to the State using information provided in Schedule C – Level of Effort Table. Additional phases required to provide all necessary services for a complete project will be negotiated thereafter. Responses to the RFP must include a completed Schedule C – Level of Effort Table for all phases of work to reflect the project information provided within this RFP.

VI. Selection and Evaluation Criteria:

The selection committee will review and consider the following:

- Accurate and specific responses to all requests for information as outlined in this RFP.
- The quality and comprehensiveness of responses from interviews for short listed teams.
- The quality and comprehensiveness of the project approach as presented in the RFP and interviews.
- The qualifications and experience of the proposed project team (firms and individuals) and a demonstration of their ability to successfully deliver the project recognizing the aggressive schedule.
- Commitment to M/W/DBEs as either joint venture partners or sub-consultants.
- Checks of references provided by the firm.
- Fees and schedule will be considered to determine the best value for the University.

These criteria are not listed in any particular order.

The University reserves the right to request additional information at any time during the selection process.

Expenses for developing and presenting proposals are considered to be marketing expenses, and shall be the responsibility of the Design Professional and shall not be reimbursed by the University. All supporting documentation submitted with this proposal will become the property of the University and may be subject to Freedom of Information Act disclosure.

Following the evaluation of the proposals, the development of a 'short list" maybe compiled, those respondents may be invited to attend a formal review meeting with selected university representatives to facilitate a final selection of the design firm.

VII. Schedules to be Submitted with Vendor Proposal:

Schedule A: Proposal Certification, Non- Collusion Affidavit and Vendor Acknowledgement

Schedule B: Insurance Requirements

Schedule C: Level of Effort Table

Schedule A

RESPONSE TO WAYNE STATE UNIVERSITY
REQUEST FOR PROPOSAL
RFP: SELC Building
AND TO ANY AMENDMENTS, THERETO

DATED: July 19, 2013

PROPOSAL CERTIFICATION, ACKNOWLEDGEMENTS, and NON_COLLUSION AFFIDAVIT

VENDOR is to certify its proposal as to its compliance with the Request for Proposal specifications using the language as stated hereon.

ACKNOWLEDGEMENTS

By virtue of submittal of a Proposal, VENDOR acknowledges and agrees that:

- All of the requirements in the Scope of Work of this RFP have been read, understood and accepted.
- The University's General Requirements and Guidelines have been read, understood and accepted.
- Compliance with the Requirements and/or Specifications, General Requirements and Guidelines, and any applicable Supplemental Terms and Conditions will be assumed acceptable to the VENDOR if not otherwise noted in the submittal in an Exhibit I, Restricted Services.
- The Supplier is presently not debarred, suspended, proposed for debarment, declared ineligible, nor voluntarily excluded from covered transactions by any Federal or State of Michigan department or agency.
- Wayne State University is a constitutionally autonomous public university within Michigan's system of public colleges and universities, and as such, is subject to the State of Michigan Freedom of Information Act 442 of 1976. Any Responses Proposals, materials, correspondence, or documents provided to the University are subject to the State of Michigan Freedom of Information Act, and may be released to third parties in compliance with that Act, regardless of notations in the VENDOR's Proposal to the contrary.
- All of the Terms and Conditions of this RFP and Vendor's Response Proposal become part of any ensuing agreement.
- The individual signing below has authority to make these commitments on behalf of Supplier.
- This proposal remains in effect for **[120]** days.

VENDOR, through the signature of its agent below, hereby offers to provide the requested products/services at the prices specified, and under the terms and conditions stated and incorporated into this RFP.

PROPOSAL CERTIFICATION

The undersigned, duly authorized to represent the persons, firms and corporations joining and participating in the submission of this Proposal states that the Proposal contained herein is complete and is in strict compliance with the requirements of the subject Request for Proposal dated **July 19, 2013,** except as noted in Exhibit 1, the "**Restricted Services/Exceptions to RFP**" section of the Proposal. If there are no modifications, deviations or exceptions, indicate "None" in the box below:

☐ **NONE** – There are no exceptions to the University's requirements or terms

☐ **YES** – Exceptions exist as shown in Exhibit 1, Restricted Services.

NON-COLLUSION AFFIDAVIT

The undersigned, duly authorized to represent the persons, firms and corporations joining and participating in the submission of the foregoing Proposal, states that to the best of his or her belief and knowledge no person, firm or corporation, nor any person duly representing the same joining and participating in the submission of the foregoing Proposal, has directly or indirectly entered into any agreement or arrangement with any other VENDORS, or with any official of the UNIVERSITY or any employee thereof, or any person, firm or corporation under contract with the UNIVERSITY whereby the VENDOR, in order to induce acceptance of the foregoing Proposal by said UNIVERSITY, has paid or given or is to pay or give to any other VENDOR or to any of the aforementioned persons anything of value whatever, and that the VENDOR has not, directly or indirectly entered into any arrangement or agreement with any other VENDOR or VENDORS which tends to or does lessen or destroy free competition in the letting of the contract sought for by the foregoing Proposal.

The VENDOR hereby certifies that neither it, its officers, partners, owners, providers, representatives, employees and parties in interest, including the affiant, have in any way colluded, conspired, connived or agreed, directly or indirectly, with any other proposer, potential proposer, firm or person, in connection with this solicitation, to submit a collusive or sham bid, to refrain from bidding, to manipulate or ascertain the price(s) of other proposers or potential proposers, or to obtain through any unlawful act an advantage over other proposers or the college.

The prices submitted herein have been arrived at in an entirely independent and lawful manner by the proposer without consultation with other proposers or potential proposers or foreknowledge of the prices to be submitted in response to this solicitation by other proposers or potential proposers on the part of the proposer, its officers, partners, owners, providers, representatives, employees or parties in interest, including the affiant.

CONFLICT OF INTEREST

The undersigned proposer and each person signing on behalf of the proposer certifies, and in the case of a sole proprietorship, partnership or corporation, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of their knowledge and belief, no member of the UNIVERSITY, nor any employee, or person, whose salary is payable in whole or in part by the UNIVERSITY, has a direct or indirect financial interest in the award of this Proposal, or in the services to which this Proposal relates, or in any of the profits, real or potential, thereof, except as noted otherwise herein.

Any notice required under the Agreement shall be personally delivered or mailed by first class or certified mail, with proper postage, prepaid, to the Subject VENDOR at the following address:

Company Name: _____

Address: _____

_____

Telephone: (_____)_____

Fax: (_____)_____

ATTN: _____

Tax Payer ID: _____

Submitted by: _____

Signature _____

Typed Name _____

_____ _____
(Title) (Date)

The Internal Revenue Code requires recipients of payments which must be reported on Form 1099 to provide their taxpayer identification number (TIN).
T.I.N. (Taxpayer Identification Number, Federal Identification Number, or Social Security Number).

Schedule B - INSURANCE REQUIREMENTS *(Revised 3-12-2012)*

_____, at its sole expense, shall cause to be issued and maintained in full effect for the term of this agreement, insurance as set forth hereunder:

General Requirements

	Type of Insurance		Minimum Requirement
1.	Comprehensive General Liability	Bodily Injury	$ 500,000 each person $1,000,000 aggregate
		Property Damage	$ 500,000 each occurrence $1,000,000 aggregate or $2,000,000 Combined Single Limit (CSL)
2.	Comprehensive Automobile Liability (including hired and non-owned vehicles)		Bodily Injury $ 500,000 each person $1,000,000 each accident
		Property Damage	$ 500,000 each accident or $2,000,000 Combined Single Limit (CSL)
3.	Workers' Compensation (Employers' Liability)	Statutory-Michigan	$ 100,000
4.	Professional Liability Insurance (Errors and Omissions)		$1,000,000 each occurrence $1,000,000 aggregate

Such insurance shall include coverage or amendatory endorsements for bodily injury, death or property damage arising out of the discharge, disposal or escape, whether or not sudden or accidental, of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminates, or pollutants into or upon land, the atmosphere or any water course or body of water

Maximum Acceptable Deductibles

Type of Insurance	Deductible
Comprehensive General Liability	$5,000
Comprehensive Automobile Liability	0
Workers' Compensation	0

Coverages

1. All liability policies must be written on an occurrence form of coverage.

2. Comprehensive general liability includes, but is not limited to: consumption or use of products, existence of equipment or machines on location, and contractual obligations to customers.

3. The Board of Governors, Wayne State University, shall be named as an additional insured, but only with respect to accidents arising out of said contract.

Certificates of Insurance

1. Certificates of Insurance naming Wayne State University / Office of Risk Management as the certificate holder and stating the minimum required coverages must be forwarded to the Office of Risk Management to be verified and authenticated with the agent and/or insurance company.

2. Certificates shall contain a statement from the insurer that, for this contract, the care, custody or control exclusion is waived.

3. Certificates shall be issued on a ACORD form or one containing the equivalent wording, and require giving WSU a thirty (30) day written notice of cancellation or material change prior to the normal expiration of coverage.

4 Insurance must be issued by a bond/insurance company with an “A rating as denoted in the AM Best Key Rating Guide”

5. Revised certificates must be forwarded to the Office of Risk Management thirty (30) days prior to the expiration of any insurance coverage listed on the original certificate, as follows:

Wayne State University
Office of Risk Management
5700 Cass Avenue, Suite 4622 AAB
Detroit, MI 48202

Schedule C.1
Level of Effort Table

(download separately from the Website)
http://www.forms.purchasing.wayne.edu/Building_Design.html

SCHEDULE D - SUMMARY QUESTIONNAIRE

		YES	ALTERNATIVE
1.	Does your company agree to provide a minimum of **3 references** to the University **upon request**, with specific contact names and phone numbers?	_____	_____
2.	Did you attend **the mandatory Pre-Proposal** meeting **on July 29, 2013?**	_____	_____
3.	If awarded a contract, will your company provide a certificate of insurance to meet or exceed all our minimum requirements?	_____	_____
4.	Did your company provide the required Proposal Certification, Non- Collusion Affidavit and Vendor Acknowledgement**, Schedule A?**	_____	_____
5.	Did your company complete and provide the Summary **Price Schedule C**, and submit it electronically to **rfp@wayne.edu?**	_____	_____
6.	Please complete the following questions:		
7.	Total number of employees in your company	_____	
8.	Total years in business with this company name	_____	
9.	Does your company agree to provide financial reports to the University **upon request?**	_____	_____
10.	Does your company agree to allow the UNIVERSITY to audit your books pertaining to the UNIVERSITY account?	_____	_____
11.	Are there any conflicts of interest in doing business with the University?	___ **Yes** ___ **No**	

APPENDICES

Appendix 1,	WSU Campus Map / Available Parking
Appendix 2,	Project Site Map
Appendix 3,	WSU Contract for Design Professional Service
Appendix 4,	Undergraduate Instructional Building Report Laboratory Classroom Task Force Report 2013 Science Engineering Classroom Presentation

APPENDIX 1

(Wayne State University Campus Map)

See web site:

http://campusmap.wayne.edu/

A detailed list of Cash & Coin operated lots can be viewed at http://purchasing.wayne.edu/cash_and_credit_card_lots.php

APPENDIX 2

REGISTRATION/INTENT FORM
RFP: SELC Building / Valerie Kreher

Please use this form to indicate your attendance at our mandatory Pre-proposal meeting to be held on, **July 29, 2013 at 10:00 am** and your intent to submit a proposal for the services listed. Please type or print the information requested below, then **fax to attention Ms. Pat Milewski at (313) 577-3747 by**, **July 26, 2013, 12:00 noon.**

VENDOR Name: _____

VENDOR Address: _____

_____

Contact Person: _____

Telephone: **(** **)** _____

Fax: **(** **)** _____

E-mail _____

YES _____ **I will be attending the** mandatory Pre-proposal meeting on **July 29, 2013**

Location: **General Lectures**
5045 Anthony Wayne Drive,
Lecture Room 0150
Detroit, MI 48202

Time: **10:00 am**

NO _____ **I will not participate in the Request for Proposal and will not be present at the meeting.**

I understand that this will not affect our status as a potential supplier to Wayne State University.

Thank you for interest shown in working with Wayne State University.

Valerie Kreher
Senior Buyer

APPENDIX 3

CONTRACT FOR DESIGN PROFESSIONAL SERVICES PROFESSIONAL SERVICES

CONTRACT TEMPLATE

Rev. 3-1-25-2013

WAYNE STATE UNIVERSITY

CONTRACT FOR PROFESSIONAL SERVICES

Executed as of the _____day of _____, 2013, by and between:

Board of Governors of Wayne State University (WSU)
Detroit, Michigan 48202
(The University)

and

Name_of_Consultant
Address_of_Consultant

regarding

Project_Name
WSU_Project_Number

Whereas, WSU desires to retain the Consultant to perform professional services on the terms hereinafter set forth, and the Consultant desires to perform said services for the University; and

Whereas, in choosing to retain the Consultant under this agreement, WSU is materially relying upon the reputation of the Consultant and upon the Consultant's representations to WSU that it is fully qualified to perform the services hereunder;

Now, therefore, in consideration of the mutual covenants and conditions contained herein, the parties agree as follows:

Article 1: Scope of Engagement

1.1 The Consultant shall provide professional services for (enter_description) in accordance with this agreement, including the proposal dated (enter_date) attached here to as Exhibit A and made a part hereof except (enter exceptions here) "If Exceptions are not given, enter a period after hereof and delete from except . . ." In the case of conflicts between the contract and the Consultant's proposal, the language of this contract shall prevail.

1.2 The Consultant shall provide, furnish and perform all necessary labor and services and furnish all necessary supplies, materials and equipment required to complete the work.

1.3 The Consultant shall perform all design work in accordance with the Wayne State University Construction Design Standards in effect as of the date of the execution of this contract. Deviations from the Construction Design Standards not authorized by the University in writing will be considered design errors.

Article 2: Term

2.1 The Consultant shall commence the work upon receipt of a fully executed Agreement, and shall complete the same in accordance with the time schedule set forth in Exhibit A, and shall complete all services pursuant to this agreement not later than (enter_completion_date) .

Article 3: Compensation and Method of Payment

"Choose 1 of the following three and fill in amounts-delete other two and these instructions:"

3.1 The University shall pay the Consultant for its services under this agreement a lump sum amount of $$$$$$$ ("Amount in words 00" /100 dollars) including reimbursables.

or

The University shall pay the Consultant for its services under this agreement a lump sum amount of $$$$$$$ ("Amount in words 00" /100 dollars) and an amount for reimbursables not-to-exceed $$$$$$$ ("Amount in words 00" /100 dollars) without prior approval of the University.

or

The University shall pay the Consultant for its services under this agreement on a time and materials basis pursuant to the fee schedule provided in Exhibit A, subject to an amount, including reimbursables, not-to-exceed $$$$$$$ ("Amount in words 00" /100 dollars) without prior approval of the University.

3.2 The Consultant shall submit an invoice to the University on a monthly basis. These invoices shall be in form and detail as required by WSU, but shall at a minimum include the name, position, hours worked, and hourly rate of pay for each person included in the invoice cost. Materials shall be listed by category with supporting documentation as necessary to establish the cost of a nonscheduled item, or the units used in the unit cost of a scheduled item. The Consultant shall maintain, at the office preparing the invoice, sufficient records to fully support each invoice. Such

records shall be available for inspection during normal working hours by WSU or its designee.

3.3 Within forty-five (45) days of receipt of an invoice, WSU shall pay the full amount of the invoice. Should any part of the invoice be in dispute, WSU shall be entitled to withhold payment of that portion of the invoice until the disputed item is resolved. Any such dispute shall be considered a priority issue for both the Consultant and WSU and every effort shall be used to resolve the dispute expeditiously.

Article 4: Standard of Performance

4.1 The services performed by the Consultant under this Agreement shall be performed in a manner consistent with that degree of care and skill ordinarily exercised by Consultants currently practicing under similar circumstances in the State of Michigan.

4.2 The Consultant shall exercise usual and customary professional care in its efforts to comply with all applicable federal, state and local laws, regulations, and codes in effect as of the date of the execution of this agreement.

4.3 The Consultant shall maintain any and all necessary governmental licenses, certificates, approvals, and permits which are required of the Consultant for the performance of its duties under this Agreement, and all such required licenses, certificates, approvals, and permits are to be maintained in full force and effect throughout the term of this Agreement.

4.4 In the event that there is a failure to comply with the standard of performance, as set forth in this Section, upon notice to the Consultant and by mutual agreement between the parties, the Consultant will promptly correct to the satisfaction of WSU those services which are not in compliance with the standard of performance without additional compensation. This will in no way waive any additional remedies WSU might have under Michigan law.

Article 5: Ownership of Documents

5.1 All drawings and specifications prepared and furnished by the Consultant shall become the property of WSU upon approval in writing by WSU, or upon the prior termination of the Consultant's services hereunder, and the Consultant shall have no claim for further employment or additional compensation as a result of exercise by WSU and its full rights of ownership of these documents and materials. It is understood and acknowledged that all drawings and specifications prepared and furnished by the Consultant pursuant to this contract shall be used only for the current project and any future work pertaining to this project at the project site, including but not limited to repair work, renovation, or alteration.

Article 6: Confidentiality

6.1 The term "Confidential Information" as used herein means all information and data whether of a technical, engineering, operating or economic nature, supplied to or obtained by the Consultant during the course of this Agreement, whether in writing, in the form of drawings, orally, or by observation.

6.2 The Consultant acknowledges and agrees that any information disclosed to it, its employees, agents or other representatives pursuant to this Agreement which is Confidential Information is and shall remain solely the property of WSU and shall be maintained in confidence and not revealed to others and shall be used only for the purposes contemplated by this Agreement.

6.3 The obligations of confidentiality stated in this Agreement with respect to confidential information shall survive the termination of this Agreement for any reason whatsoever and shall continue in full force and effect until the earliest of the following should occur: (a) such confidential information has become available to the general public through no fault of the Consultant, or (b) such

confidential information is received by the Consultant from third parties who are in lawful possession of such and who by such disclosures are not breaching any obligation owing to WSU, or (c) such confidential information has been revealed under legal compulsion from any governmental/regulatory agency having jurisdiction to request such information; provided, however, that the Consultant will notify WSU that confidential information is being disclosed to the governmental/regulatory agency involved.

6.4 The Consultant further agrees to reveal confidential information, only to such of its employees, agents or other representatives as are obligated to maintain and protect the confidentiality thereof in accordance with this Agreement. The Consultant assumes the responsibility that its employees, agents and other representatives will preserve the secrecy of such confidential information with respect to third parties.

Article 7: Safety and Security

7.1 The Consultant shall direct all of its subcontractors, employees, and agents performing services in connection with this Agreement to fully comply with all rules, regulations and other requirements imposed by both WSU and any contractor having jurisdiction over construction work performed. To the extent that laws and other governmental regulations pertain to the Consultant concerning the safety of the Consultant's subcontractors, employees and agents, the consultant shall comply with such laws and governmental regulations.

Article 8: Save Harmless

8.1 The Consultant agrees to be responsible for any loss due to damage to property or injury, damage or death to persons resulting from the negligent acts, errors, or omissions of the Consultant in the performance of the services of this Agreement or breach of any provisions in this Agreement, and further agrees to protect and defend WSU against all such claims or demands of every kind, therefrom, and to hold WSU harmless. Such responsibility shall not be construed as liability for damage caused by or resulting from the negligence of WSU, its agents other than the Consultant, or its employees.

Article 9: Insurance

9.1 The Consultant, at its cost, shall obtain and maintain the following insurance with respect to its performance under this Agreement:

9.1.1 Comprehensive General Liability Insurance, in an amount of not less than One Million Dollars ($1,000,000) per occurrence and One Million Dollars ($1,000,000) annual aggregate.

9.1.2 Comprehensive Automobile Liability Insurance (Owned, Hired, and Non-Owned Vehicles), in an amount of not less that Five Hundred Thousand Dollars ($500,000) per occurrence for bodily injury and Five Hundred Thousand Dollars ($500,000) per occurrence for property damage.

9.1.3 Professional Liability Insurance (Errors and Omissions) in an amount of not less than One Million Dollars ($1,000,000) per occurrence and One Million Dollars ($1,000,000) aggregate. Such insurance shall include coverage or amendatory endorsements for bodily injury, death or property damage arising out of the discharge, disposal or escape, whether or not sudden or accidental, of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminates, or pollutants into or upon land, the atmosphere or any water course or body of water.

9.1.4 Worker's Compensation Insurance adequate to meet statutory requirements of all jurisdictions having authority over such claims.

9.2 Such insurance shall cover the Consultant and those for whom it may be responsible; shall name WSU as additional insured under the foregoing Comprehensive General Liability and Comprehensive Automobile Liability insurance policies; shall cover claims and losses occurring during or at any time after the term of this Agreement and shall otherwise be to the reasonable satisfaction of WSU. Such liability coverage, where applicable, shall be primary to any insurance maintained by WSU. The Consultant shall provide WSU with documentation sufficient to evidence such insurance coverage, and shall require its insurers to immediately notify WSU in writing of any proposed change or cancellation of such insurance or if the amount of the aggregate available for claims by WSU falls below the amounts set forth above.

Article 10: Audits and Records

10.1 WSU shall have the right to audit the moneys expended or obligations incurred by the Consultant, including all books, records, and all other documents related to services performed under this Agreement. Such information shall be available and open to review, inspection and audit by WSU's personnel and by WSU's designated certified public accountant, at the place or places where such record, books and other documents are kept at all reasonable times until the completion of this project or for a minimum of thirty-six (36) months from the date of the Consultant's invoice covering such costs. The Consultant shall provide in all of its contracts, agreements, retainers, or subcontractors a written statement indicating that WSU shall have the right to audit all source documentation of subcontractor's compensation.

Article 11: Termination

11.1 WSU reserves the right to terminate the project at any time. Upon termination, WSU shall reimburse the Consultant for all actual expenses and charges outstanding at the time of termination. In addition, WSU shall pay the Consultant cancellation charges applying to materials and/or equipment on order and/or on rental at the time of termination which cannot be canceled.

11.2 11.2 The Consultant shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

Article 12: Notices

12.1 Any notice required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been given when hand-delivered or deposited in the U.S. mail, certified or registered, return receipt requested, in a postage prepaid envelope addressed to the Consultant's or WSU's respective addresses. Either party may designate a different address for notices by giving written notice to the other.

Article 13: Nonassignment

13.1 WSU has entered into this Agreement in order to receive the professional services of the Consultant. The Consultant will not make any assignment, by operation of law or otherwise, of all or any portion of the services required under this Agreement without first obtaining the written consent of WSU. The rights and obligations of WSU hereunder shall inure to the benefit of, and shall be binding upon, the successors and assigns of WSU.

Article 14 – Dispute Resolution

14.1 Jurisdiction over all claims, disputes, and other matters in question arising out of or relating to this contract or the breach thereof, shall rest in the Court of Claims of the State of Michigan. No provision of this agreement may be construed as Wayne State University's consent to submit any claim, dispute or other matter in question for dispute resolution pursuant to any arbitration or mediation process, whether or not provisions for dispute resolution are included in a document

which has been incorporated by reference into this agreement.

14.2 In any claim or dispute by the Consultant against the University, which cannot be resolved by negotiation, the Consultant shall submit the dispute in writing for an administrative decision by the University's Vice President for Finance and Administration, within 30 days of the end of negotiations. Any decision of the Vice President shall be made within 45 days of receipt from the Consultant and is final unless it is challenged by the Consultant by filing a lawsuit in the Court of Claims of the State of Michigan within one year of the issuance of the decision. The Consultant agrees that appeal to the Vice President is a condition precedent to filing suit in the Michigan Court of Claims.

14.3 For purposes of this section, the "end of negotiations" shall be deemed to have occurred when:

14.3.1 Either party informs the other that pursuant to this section, negotiations are at an impasse; or

14.3.2 The Consultant submits the dispute in writing to the Vice President.

14.4 Unless otherwise agreed by the University in writing, and notwithstanding any other rights or obligations of either of the parties under any Contract Documents or Agreement, the Consultant shall continue with the performance of its services and duties during the pendency of any negotiations or proceedings to resolve any claim or dispute, and the University shall continue to make payments in accordance with the Contract Documents; however, the University shall not be required or obligated to make payments on or against any such claims or disputes during the pendency of any proceeding to resolve such claims or disputes.

Article 15: Miscellaneous

15.1 The terms and provisions of Article 4, entitled "Standard of Performance", Article 5, entitled "Ownership of Documents", Article 6, entitled "Confidentiality", Article 8, entitled "Save Harmless", Article 9, entitled "Insurance", and Article 10, entitled "Audits and Records", shall survive the termination of this Agreement, howsoever brought about.

15.2 All written communications from the Consultant shall be addressed to WSU. The Consultant shall only take instructions from the person or persons who from time to time are authorized in writing by WSU to give the same.

15.3 The work shall be performed by the Consultant in such a manner and at such a time so as not to interfere with or interrupt the operations of WSU.

15.4 This Agreement shall be subject to and governed by the laws of the State of Michigan. The Consultant shall exercise usual and customary professional care in its efforts to comply with all applicable local, county, state, and federal codes, rules, regulations, and orders, in effect as of the date of the execution of this Agreement.

15.5 Failure to insist upon strict compliance with any provision hereof shall not be deemed a waiver of such provision or any other provision hereof.

15.6 This Agreement may not be modified except by written amendment executed by the parties hereto.

15.7 The invalidity or unenforceability of any provision hereof shall not affect the validity or enforceability of any other provision.

15.8 This Agreement supersedes all previous agreements between WSU and the Consultant concerning this work.

15.9 This Agreement may be executed in one or more counterparts, each of which shall be deemed to

be an original, and such counterparts shall together constitute and be one and the same Agreement.

15.10 In the performance of the services under this Agreement, the Consultant shall be an independent contractor, maintaining complete control of Consultant's personnel, subcontractors, and operations. As such, the Consultant shall pay all salaries, wages, expenses, social security taxes, federal and state unemployment taxes, and any similar taxes relating to the performance of this Agreement. The Consultant, its employees and agents, shall in no way be regarded nor shall they act as agents or employees of WSU.

15.11 The Consultant covenants not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, or physical handicap, unless pursuant to a bonafide occupational qualification. Breach of this covenant may be considered a material breach of the contract. By acceptance of this order, the Consultant certifies that it will comply with all applicable provisions of Executive Order 11246, as amended, Section 503 of the Rehabilitation Act of 1973, as amended, and the Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended (38 U.S.C. 4212) and implementing regulations at 41 CFR Chapter 60.

15.12 In the event that any term or provision of this Agreement conflicts with any other provision of the attached proposal, this Agreement shall control.

IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the day and year first above written.

CONSULTANTS_NAME	WAYNE STATE UNIVERSITY
By: _____	by: _____
Signature	signature
Name: _____	Name: Richard J. Nork
Print or type name here	
Title: _____	Title: Vice President for Finance and Business Operations
Date: _____	Date: _____

FORM CONTRACT APPROVED BY OGC 11/25/98
Rev8_5_14_2012_RGP

APPENDIX 4

UNDERGRADUATE INSTRUCTIONAL BUILDING REPORT
LABORATORY CLASSROOM TASK FORCE REPORT
2013 SCIENCE ENGINEERING CLASSROOM PRESENTATION


WAYNE STATE

WAYNE STATE UNIVERSITY

Undergraduate Instructional Building Task Force Report

June, 2013

Undergraduate Instructional Building Task Force Report

The Task Force for Study of Proposed Laboratory Classroom Building Project was charged with evaluating the existing proposal to build a new laboratory classroom building. As part of the Task Force's work, it surveyed the departments that would have laboratories in the new building and determined the current usage and future need for the classroom and research laboratories.

The consensus reached by the members of the Task Force calls for the construction of the new building devoted entirely to undergraduate STEM education. The construction of such a building represents a unique opportunity to design and build a transformative teaching facility that will impact science education at Wayne State University for the next generation, through incorporating modern laboratories and new active learning classrooms that will enable new pedagogical approaches. The Task Force felt that the University should not compromise efforts to revitalize undergraduate science education at Wayne State by adding single-use, specialized research laboratories in the same building. Additional space for these laboratories will be available as a result of moving undergraduate teaching laboratories from Physics, Biological Sciences in Shapiro Hall and Science Hall, and Engineering, transforming the freed space into world-class research laboratories and thus contributing to research infrastructure at the University. As there is no evidence that WSU fails to attract high quality new faculty because the renovated research labs are located in the older buildings, the Task Force sees no reason to include research labs in the plan for the new building. Additionally, such a teaching-only building would attract more students to STEM courses, increasing recruitment, retention, and tuition revenue for the University.

The education landscape is rapidly changing with the emergence of increasingly important online resources as well as new teaching techniques, such as active learning and peer-to-peer instruction. Wayne State cannot ignore these trends in college education and must embrace the best teaching practices identified by research in science education. Even though large component of science education may be delivered through online courses, perhaps in the form of Massive Open Online Courses (MOOCs), instructor-student and student-student interactions will remain an integral part of the learning process. Our campus is however equipped mostly with traditional style classrooms. Indeed, only a few active learning classrooms are available on campus, and none are suitable for high enrollment classes. The Task Force regards the construction of this proposed teaching building as an opportunity to remedy this unfortunate situation and recommends the new building should feature flexible classrooms designed and equipped to enable use of active learning techniques and providing modern instructional laboratory space

A. Shared infrastructure and departmental resources in the new building

The new Undergraduate Instructional Building would serve as a hub for undergraduate STEM education at WSU. The new building would be equipped to promote new (and proven) educational methods such as active learning, rather then reinforcing old methods

of teaching. The national trend, as evidenced by the President's Council of Advisors on Science and Technology (PCAST) report "Engaged to Excel", is to use evidence-based active learning methods in STEM teaching. However, WSU currently lacks adequate facilities to support these new teaching methods, particularly for high enrollment courses, including physics PHY 2130/40, and engineering BE 1300 or BE 2100. These courses typically enroll 120 students in each section, setting the size requirements for these rooms. Therefore, the Task Force recommends that the building include two or three active learning classrooms with the capacity to hold 120 students, with design similar to the smaller new classrooms on the 4th floor of State Hall. Currently, the largest fully equipped active learning classroom at WSU can accommodate fewer than 70 students (4^{th} floor of the State Hall), so there is compelling need for new larger active learning classrooms. These active learning classrooms will be shared not only by biology, engineering, and physics students, but also by students in other departments, including Chemistry, Mathematics, Nutrition and Food Sciences and Psychology.

The new building will serve to promote interdisciplinary education for biology, engineering, and physics students. This will be achieved by sharing teaching laboratories between Biological Sciences, Engineering and Physics to provide the opportunity for interdisciplinary labs. Furthermore, active learning classrooms will be easily reconfigurable to meet specific needs of different departments fostering interdisciplinary educational environment. This is a distinct advantage of active teaching classrooms over traditional lecture rooms with fixed seating.

Additionally, the Task Force recommends that three smaller active learning classrooms (35-40 seats each) should be included in the design of the building. This will allow lectures, labs and quiz sections to be held together in a student-focused learning space. Finally, the Task Force recommends that a small seminar room (100 seats) for interdisciplinary lectures and presentations by faculty and students to be located in the building. This will make the building attractive for undergraduate workshops and conferences, thus facilitating transition between classroom learning and research.

Based on the analysis of the teaching and research needs for each of the science and engineering departments that will be accommodated by this new building, the Task Force makes the following recommendations for how teaching laboratories for each department listed below might be accommodated by the proposed new building.

1. *Physics*— The current space allocated to laboratory instruction in the Physics Research Building is approximately 11,000 sq ft. The Physics Research Building is currently in violation of fire safety code for instructional activities. This serious issue needs to be remedied as soon as possible. Currently Physics uses ten laboratory classrooms for six introductory physics labs (PHY1020, 2131, 2141, 2171, 2181 and AST2011) in dedicated rooms, and eight upper level physics labs (PHY3100, 3310, 5431, 5620, 6450, 6780, 6850, AST4200) in shared rooms. The current Physics Research Building also houses a computer lab that is regularly used for two scheduled classes and occasionally serves other courses. The Task Force recommends putting at least ten Physics dry lab classrooms with the

capacity to provide instruction for up to 24 students in the new building. In addition, one computer lab with space for 24 students is to be included. Some of those teaching labs (e.g. PHY 5431/ECE 5760 Optics Lab, as well as an Electronics Lab PHY 5620; see below) and the computer lab will be shared or continued to be shared with Engineering. One wet lab for advanced PHY6780 course serving the new Biomedical Physics major is also recommended, which will also be shared with Engineering (see below). This design will allow for new lab courses using shared space to be developed. For example, the lab component for PHY 6450 (Introduction to Material and Device Characterizations) could share the same space as the BE 1310 (Engineering Materials Lab) (also see below). The current instructional laboratories in the Physics Research Building should be renovated to make the space available for research.

2. *Biological Sciences*—Currently Biological Sciences uses five laboratory classrooms in Science Hall and seven in Shapiro Hall (rooms 200, 309, 314, 404, 405, 409, 415). Physiology (SOM) also uses room 317 on an informal basis (i.e. not for a scheduled course). The Task Force recommends that moving three labs from Science Hall and four from Shapiro Hall into the new lab classroom building and remodeling the vacated labs for research use.

3. *Engineering*— Engineering currently has three college computer labs, one of which is small and houses high-end computers. The Task Force recommends that the two larger computer labs be moved to the new building and that the freed space, which are two adjoining rooms, be converted to a research lab. Engineering and Physics use some of the same software, such as MATLAB, so these large computer labs can be shared with Physics to optimize the use of space and resources.

   The Biomedical Engineering department currently uses three lab classrooms in the Engineering building that do not satisfy our educational goals. The Task Force recommends that two new lab classrooms be located in the new instructional building. One would be a collaborative room with six or seven workstations each of which would service three or four students, and house BME design activities (BME 1910/20, BME 2910/20, BME 3910/20, and BME 4910/20). The second room would house a wet lab, serving courses including BME 2004, 2005 and 4010, and also sharing with PHY 6750, Biomedical Physics Research lab course, which uses atomic force microscopy and optical microscopy based evaluation of cell cultures and tissue samples.

   Finally, the Task Force recommends moving Electrical and Computer Engineering Department laboratory instruction activities housed in ENG 3450 and ENG 3460 to the new building. The two dry labs would serve courses including ECE 3300, 5370, 5380, 5575, 5690, 6660, and 7530. This space could be shared with PHY 5620 Electronics and Electrical Measurements lab.

Engineering has a lab classroom in the Manufacturing Engineering building that is used for a materials sciences course (BE 1310) taken by most engineering students. It is currently in a room that has no hoods or water that limits the procedures that can be performed in the course. The Task Force recommends that this wet lab be moved to the new building and the freed space be converted to a research laboratory. This lab can be shared with PHY 6450 Introduction to Material and Device Characterizations.

Based on this analysis, the Task Force recommends that two computer labs, one dry lab and two wet labs are to be shared between Physics and Engineering in the new building.

4. The Task Force recommends that Chemistry, Nutrition and Food Science (NFS), and Psychology teaching labs be renovated as needed to provide better learning environment for the students, leaving these instructional laboratories in their original buildings. This recommendation would eliminate the need for the duplication of science store facilities in the new building if it is built on Parking Lot P53, avoiding the need for extra staff and additional costs implied by the creation of a new store. Additionally, the space initially proposed by administration for Chemistry, Nutrition and Food Science and Psychology instructional labs in the new building would instead be allocated for active teaching classrooms and other student space.

The Task Force also recommends moving two Organic Chemistry labs from the third floor to the second floor of Science Hall into the space vacated by Biology instructional lab, which will be moved to the new building. This will provide Nutrition and Food Science with one wet teaching lab and one research lab in Science Hall.

B. Total recommended instructional laboratories and classrooms

The new building would have a shared teaching space and accommodate each of the departments listed below by including the indicated classroom or teaching lab space.

Department	**Laboratories in new building**
Shared use	2 large active learning dry classrooms, 1 small seminar room, 3 small active learning classrooms A/V support room for active learning classrooms 2 computer labs (Engineering/Physics) 4 offices for computer support staff + lab supervisors
Physics	10 dry lab classrooms
Biological Sciences	4 dry labs, 3 wet labs
Engineering	3 dry labs, 2 wet lab (to be shared with Physics)

Totals:	
Dry lab classrooms	17
Wet lab classrooms	5

Computer labs	2
Large active learning teaching rooms	2
Small active learning teaching rooms	3
Seminar room	1
Total labs/classrooms:	**30**

In addition, the new building should house at least three storage rooms for lecture demonstration and laboratory equipment for Biology, Engineering, and Physics. The two computer labs will require shared office space for support staff. Shared office sace would need to be provided for laboratory supervisors in Biology, Engineering, and Physics.

While this proposal lists a total of thirty new classroom laboratories, computer classrooms, and active teaching classrooms, the plan proposed by the Task Force provides considerable flexibility as to the number of labs provided for each unit. The size of each lab classroom varies by discipline and it is possible that dry labs that are used in Physics and Engineering could be accommodated in smaller rooms. The current Physics lab-classrooms only accommodate 16 students. Even if this is increased to 20 or 24 students, the room size should be substantially smaller than instructional laboratories that are designed to accommodate 30 Biology students.

The Task Force notes that teaching methods heavily rely on technology. For example, ordinary wireless Internet connections are not sufficient for computer labs, the building should thus be equipped with high speed wired network (CAT6) throughout. Other modern teaching equipment, such as smart screens and white boards, would enhance student learning. Those expenses should be included in the cost analysis for this building.

While it was not an explicit charge for this Task Force, it was noted that the building should be appealing, comfortable and pleasant for students to stay. This would make the Undergraduate Instructional Building the hub for undergraduate science and engineering education at Wayne State University.

C. Cost analysis and location of the building

The administration proposal recommends spending $28M to build the new facility at the location of the parking lot P53 and to convert the lab classrooms that moved to the new building into research space. The Task Force notes an alternative possible location for the Undergraduate Instructional Building is the site of the current Life Sciences building.

Both locations offer certain advantages and entail certain disadvantages. On one hand, the location at the site of the current Life Sciences building has a virtue of immediate elimination of the underused and costly space. The Life Sciences building has very limited occupancy and costs $300,000 per year to operate and maintain. The cost of demolishing this building would be offset by new, more energy efficient, and well-designed construction. This location would allow the use of the cooling plant located in

the Chemistry Building. On the other hand, construction of the building on the parking lot P53 would provide swing space for moving research laboratories currently located in the Life Sciences Building. Those laboratories could be temporarily relocated to the research space freed by moving teaching labs from Physics Building, Shapiro Hall and Engineering. This would eliminate the need to operate the Life Sciences building as an active research facility. Further advantage is that the site occupied by the Life Sciences Building would be available for future research or educational infrastructure expansion. Finally, the Physics Research Building's cooling and heating plant could also be used to service the new building.

The charge for this Task Force did not include comparative cost analysis of the two locations for the new teaching building. The Task Force does not have expertise required for a precise analysis of the costs associated with demolition and/or construction of the new building. Rough cost estimates were done for both locations and couold be provided to the administration upon request. However, these should not be used as a substitute for a rigorous cost analysis as they might be incomplete and consequently misleading. Thus, the Task Force recommends the comparative cost analysis to be done for both options (parking lot P53 and current site of the Life Sciences building), and these findings should be incorporated in making the final decision.

D. Summary

The Task Force considered the proposal for construction of a new Undergraduate Instructional Building. It found the case for the new building very compelling. The Task Force recommends that the new building be exclusively an instructional facility designed to be a focus for science and engineering education at the University. This building will promote new multidisciplinary educational methods by providing both large and small active learning classrooms.. It will also house teaching labs for three academic units, Biology, Engineering, and Physics. Laboratory space shared among these units will also promote interdisciplinary teaching, as will inclusion of an interdisciplinary seminar room. The plan has sufficient flexibility to accommodate teaching needs for all science and engineering units across the University. It recommends that the building be named the Undergraduate Instructional Building. This facility has the potential to set the standard of interdisciplinary science and engineering education in the State of Michigan. Full evaluation of the proposal will require detailed cost estimate comparing various site options, the lot P53 or the site currently occupied by the Life Sciences building. The Task Force also recommends that the lab classrooms in the Physics Research Building, Shapiro Hall, and Science Hall that are vacated be renovated as research space.

WAYNE STATE UNIVERSITY

Laboratory Classroom Task Force Report

June, 2013

The Joint Task Force for Study of Proposed Laboratory-Classroom Building Project was charged with evaluating the Administration's proposal to build a new laboratory classroom building. As part of the Task Force's work, it surveyed the departments that would have laboratories in the new building and determined the current usage and future need for the classroom and research laboratories. The administration plan placed the new building adjacent to the Physics building and recommended it house only laboratory classrooms. The plan developed by the Task Force instead recommends this new building be a mixed function teaching and research building and that it be positioned adjacent to Science Hall using the space made available by the demolition of the Life Sciences building.

A. Location of the new laboratory classroom building

The administration's proposal recommended that the new building be located in the parking lot next to the Physics building. The Task Force is aware that this location is most convenient for the Physics Department because of the close proximity to its research labs, but if a combined lab classroom and research building were to be constructed, locating the building near Science Hall in a space that includes the current location of the Life Sciences building has many advantages.

1. This plan would provide new research space for numerous departments rather than remodeled space in old or inconveniently located buildings. Having researchers from many departments in the same building might provide an incubator for research collaborations. The new space would be very attractive to potential new faculty hires.

2. Having classroom labs and research labs in the same building might be used to sell the new building to the State. There is currently great interest in having undergraduates participate in research and a case might be made that students in the lab classes would be able to view or participate in research occurring in the research labs. In addition, instrumentation in the research labs or core facilities might be made available for use by the students in the lab classes.

3. This plan would include the demolition of Life Sciences, a building that has very limited occupancy and costs at least $300,000 per year to operate and maintain. A study showed that the Life Sciences building has at least $10M in deferred maintenance, some of which may need to be carried out in the short run if the building is continued to be used

4. This plan would locate the research space for Nutrition and Life Science and Biological Sciences close to the current location of the research space for these departments.

5. This plan would position the new lab classrooms close to Science Hall, the other major science lab classroom building on campus and would allow this building to use the Science Stores facilities and Science Hall loading dock.

6. Since this plan would accommodate the research space needs for Nutrition and Food Science, the organic chemistry labs would not need to be relocated. If the organic chemistry labs should need to be relocated because of air flow problems, they could not

be placed in a building near Physics because of the requirement for access to Science Stores.

7. This new building would be able to use the heating and, possibly, the cooling plant located in the Chemistry Building.

8. It might be possible to construct this building so that additional floors could be added in the future that would accommodate the research needs of new faculty.

B. Departments having space in the new building

Based on the analysis of the teaching and research needs for each of the science departments that might use the new building, the Task Force makes the following recommendations for how each unit listed below might be accommodated by a this proposed new building.

1. *Physics*—This department clearly needs to make its lab classrooms code compliant. Currently, Physics uses eight classrooms that are documented in the schedule of classes as being used as lab classrooms. One computer lab is also used for one class. Two of these rooms serves two different classes (115 and 169). Several rooms are very sparsely used and/or there appears to be a conflict between what is listed in the schedule of classes and the grids provided by Chair (169, 184, 245, 267). Apparently some lab rooms are jointly used for research and classrooms and some courses are classes that include both lecture and lab and the lab room is not listed in the schedule of classes. The Task Force recommends putting at least eight Physics classrooms and one computer lab in the new building. It is possible that the computer lab could be used by other departments. It is possible that nine lab classrooms might be justified. It is also likely that the Physics lab classrooms, especially for the advanced labs, could fit into a significantly smaller footprint and thus it is possible that, for example, twelve new labs could fit into the space occupied by eight labs designed to accommodate 30 chemistry or biology students. The Administration's proposal did not recommend putting lecture rooms or a colloquium room in the new building and the Task Force agrees with this recommendation. For classroom needs, Physics should use the lecture classrooms in the classroom buildings distributed around campus. The current lab classrooms located in the Physics building should be remodeled for use by research groups. Finally, the Task Force recommends that the current colloquium and lecture classroom in the Physics Building be remodeled into a state-of-the-art room for departmental seminar presentations.

2. *Biological Sciences*—Biological Sciences currently uses five laboratory classrooms in Science Hall and seven in Shapiro Hall (rooms 200, 309, 314, 404, 405, 409, 415). Physiology (SOM) also uses room 317 on an informal basis (i.e. not for a scheduled course). In general, these labs classrooms are in better shape than those in Science Hall. The administration's proposal recommends moving three labs from Science Hall and four from Shapiro Hall into the new lab classroom building and remodeling these labs for research use. If Biological Sciences can justify needing new research space, the Task Force recommends that Biological Sciences research labs be placed in the new building. The Task Force included five Biological Sciences research labs in the new building in its

recommendations below but this number could be increased or decreased based on how the department justifies its needs and based on the needs of other departments for research space. The Task Force has not been provided a strong justification for new classroom lab space for Biological Sciences, but the labs classrooms that are currently being used in Science Hall and Shapiro Hall should be remodeled.

3. *Nutrition and Food Science*—Currently this department has two lab classrooms in Science Hall, one of these more accurately described as a food preparation room. Rather than move these to the new building, the Task Force instead recommends that two Nutrition and Food Science research labs be placed in the new building. The current lab classrooms in Science Hall should be remodeled. If the organic chemistry labs classroom are placed in the new building, then these should be remodeled for research use by Nutrition. If the organic labs remain in Science Hall, Food and Nutrition Sciences could be provided two additional research labs in the new building if this need was justified.

4. *Chemistry*—The administration's proposal recommends that two organic chemistry labs (currently in Science Hall) and one analytical chemistry lab (currently in Life Sciences) be placed in the new building and that the labs vacated from Science Hall be converted into research space for Nutrition and Food Science. Locating the new building near Physics would require the construction and staffing of a Chemistry stockroom facility there. Locating the new building adjacent to Science Hall would allow the use of Science Stores. There are two possible scenarios for the location of the organic labs: these labs remain where they are (these labs were extensively remodeled in the 80s and have sufficient hoods for use by organic classes) and he exhaust issue in Science Hall would need to be addressed; or the organic labs could be located in the new building and the vacated space be converted into research labs for Nutrition. The analytical lab classroom currently in the Life Sciences building should be included in the new building.

5. *Psychology*—Currently Psychology has one lab class that has no home lab classroom. When scheduling permits, this class uses a Chemistry lab, room 1002 in Science Hall. Psychology clearly has need for a lab classroom and this room should be included in the new building.

6. *Engineering*—The Biomedical Engineering department currently uses three lab classrooms in the Engineering building that are not suitable. The Task Force recommends that two new lab classrooms be located in the new building. One would replace rooms 2405 and 0331. It would be a collaborative room with six or seven workstations each of which could service three or four students. The second room would house a wet lab replacing room 0325 in the Engineering building. Engineering currently has three college computer labs, one of which is small and houses high end computers. The Task Force recommends that the two larger computer labs be moved to the new building and that the freed space, which are two adjoining rooms, be converted to a research lab. Engineering has a lab classroom in the Manufacturing Engineering building that is used for a materials sciences course taken by most engineering students. It is currently in a room that has no hoods or water limiting the procedures that can be in the course. The Task Force

recommends that this lab be moved to the new building and the freed space be converted to a research lab.

7. *Other*—There is currently a Nursing research group using a laboratory in the Life Sciences Building This group should be accommodated in the new building.

C. Total recommended lab classrooms and research laboratories

The new building would accommodate each of the departments listed below by including the indicated classroom or research space.

Department	**Laboratories in new building**
Physics	8 dry lab classrooms, 1 computer lab (more labs if smaller)
Biological Sciences	5 research labs (must be justified)
Nutrition and Food Sciences	4 research labs (must be justified) (might be 2 if organic moves)
Psychology	1 wet lab classroom
Chemistry	1 wet lab classroom (might be 3 if organic moves to new building)
Engineering	2 dry labs, 1 wet lab, 2 computer lab
Nursing	1 research lab
Other	4 research labs (could change depending on justifications)

Totals:	
Dry classrooms	10
Wet classrooms	3
Computer labs	3
Research labs assigned	10
Research labs/classrooms unassigned	4
Total labs/classrooms:	30
Vivarium	1 (basement)

Assuming that the new building will house a total of thirty new classroom laboratory, computer classrooms, or research laboratories plus the vivarium, the plan proposed by the Task Force provides flexibility to accommodate up to 4 additional lab classrooms, computer labs, or research labs, whichever is best justified. For example, if Engineering documents the need for new ECE dry lab classrooms or if Biological Sciences justifies the need for new wet lab classrooms, up to 4 could be included in the new building. In addition, the size of each lab classroom will vary by discipline and it is possible that dry labs that are used in Physics and Engineering could be accommodated in smaller rooms. The current Physics lab-classrooms only accommodate 16 students. Even if this is increased to 20, the room size should be substantially smaller than lab classrooms that are designed to accommodate 30 Chemistry or Biology students. In addition, many of the lab classrooms that Physics needs will be used for advanced courses that have small class sizes that might be accommodated by rooms designed to hold ten or fewer students.

D. Cost analysis

1. Administration plan—The administration proposal recommends spending $28M to build the new building and convert the lab classrooms that moved to the new building into research space. These funds are proposed to be distributed as follows:

Lab Classroom Building (45,000 sq. ft.)	$19,500,000
Physics renovation	$2,100,000
Engineering renovation	$1,200,000
Shapiro Hall renovation	$5,200,000
Total recommended cost:	$28,000,000
Science Hall renovation	$4,000,000
Actual cost:	$32,000,000

Not included in the administration cost analysis is the renovation of Science Hall for Nutrition and Food Science, moving the organic chemistry labs, and the cost to provide proper air flow. Based on the estimates from the ILSL building, the cost for this part of the project is at least $4M resulting the actual total project cost of approximately $32,000,000 shown above.

2. Task Force plan—The Task Force recommends building a new combined lab classroom-research building in the current location of the Life Sciences building. This building would cost significantly more because it would need to include a new vivarium in the basement area and would require the demolition of the Life Sciences building. The costs for renovations of Physics and Engineering space use the same amounts as in the administration plan. The cost for renovating Shapiro Hall is reduced to $2M because it is likely that renovating the teaching labs, some of which are dry labs, would cost substantially less than converting these into research space. In addition, it is estimated that the utility costs would be about the same as is currently used by the Life Sciences building saving about $3M over ten years. This does not include deferred maintenance costs that are anticipated for the Life Sciences building.

Lab Classroom-Research Building (60,000 sq. ft.)	$25,500,000
Demolition of Life Sciences Building	$500,000
Relocation of faculty and vivarium	$600,000
Physics renovation	$2,100,000
Engineering renovation	$1,200,000
Shapiro Hall renovation	$2,000,000
Total cost:	$31,900,000
10-year utility savings:	($3,000,000)
Science Hall renovation	$2,000,000
Actual cost:	$30,900,000

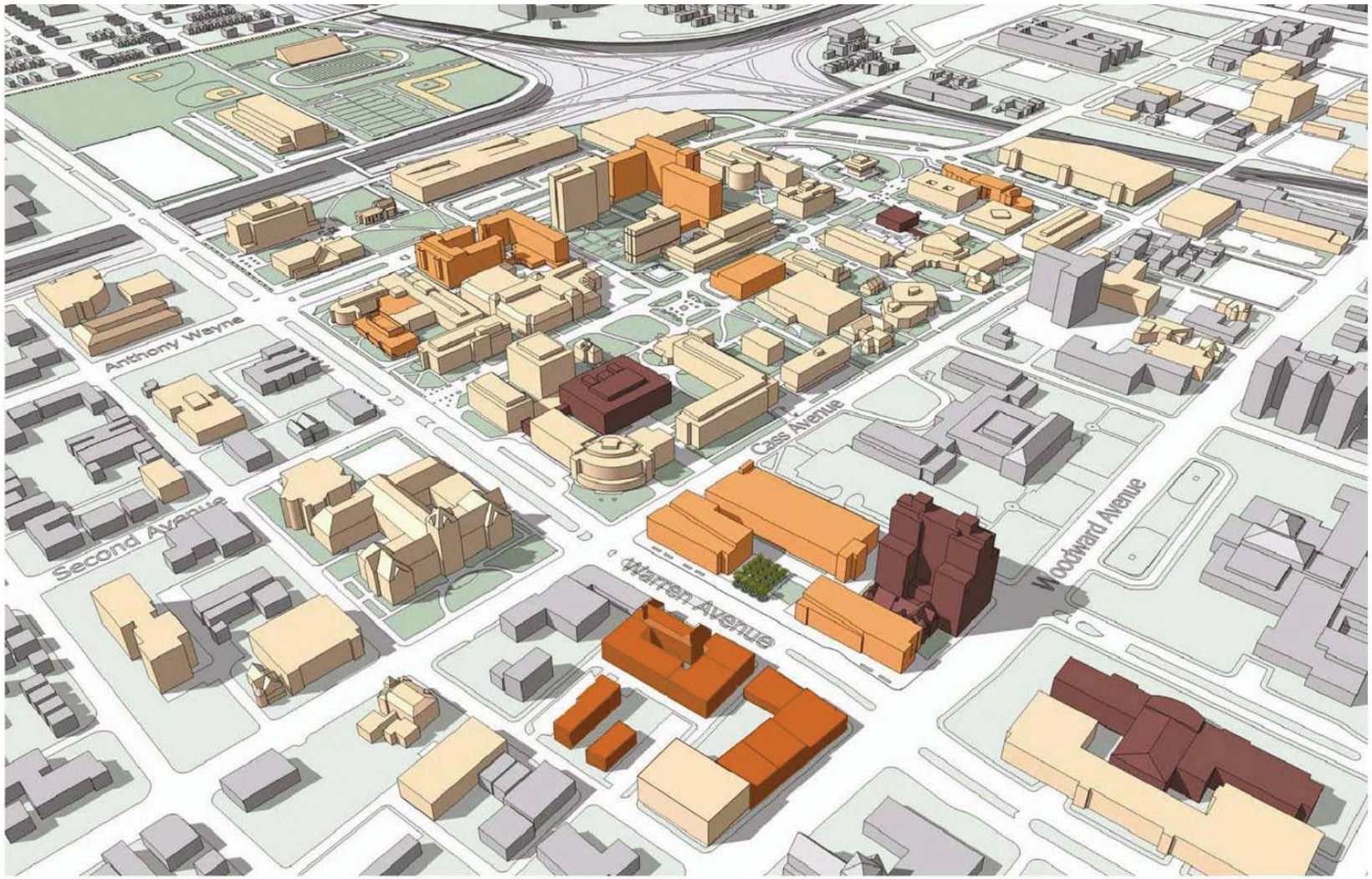
The renovation of the two lab classrooms in Science Hall for Nutrition and Food Science and the cost to provide proper airflow is estimated to be $2M. This amount is less than what is shown in the administration proposal calculation above because the organic labs need not move and because renovating this space for classrooms should cost less than the renovation required to convert this into research space. The utility savings derived from the demolition of the Life Sciences Building is $300,000 resulting in a 10-year utility savings of $3,000,000.

D. Summary

The Task Force recommends that the new building be a mixed function lab classroom and research lab building located next to Science Hall that will house seven academic units: Physics, Biology, Nutrition, Psychology, Chemistry, Engineering, and Nursing. The plan has sufficient flexibility to accommodate both the teaching and research needs for each of these units. It recommends that the building be named the Undergraduate Laboratory Building. The Task Force further recommends that this building contain three floors and be positioned where the Life Sciences building currently is located using the footprint previously proposed for the Interdisciplinary Life Sciences Laboratory (ILSL) building. The basement will house a new vivarium to replace the one currently in this location. This building should not include any lecture classrooms or colloquium rooms because with there is no documented need for additional lecture classroom space. Instead, the Task Force recommends that remodeling the lecture rooms in State Hall be made a high priority. The Task Force recommends that the Physics lab classrooms that are moved to the new building be remodeled into research space and the current colloquium room be completely remodeled. The lab classrooms in Shapiro Hall should be remodeled as needed. Although, not part of the administration's proposed project, there is a clear need for remodeling all of the lab classrooms in Science Hall and this should be included in the project if possible.

WAYNE STATE UNIVERSITY

2012 Science & Engineering Lab Classroom



Project Details

Overview of Lab Classrooms on Main Campus

The following were included in the proposed lab classrooms for the new construction:

Department	# of Classrms	Building	Included in SELC	To Remain
Geology	3	Old Main	0	3
Biology	1	Old Main	0	1
	5	Science Hall	3	2
	6	Shapero Hall	3	3
	1	BSB	0	1
Anthropology	1	Old Main	0	1
Physics + Astron.	10	Physics	10	0
Psychology	1	Science Hall	1	0
Chemistry	9	Science Hall	2	7
	1	Life Science	1	0
Nutrition + Food Sci	2	Science Hall	2	0
Computer Science	5	State Hall	0	5
	1	5057 Wdwd	0	1
Nursing	1	Cohn	0	1
Physiology	1	Shapero Hall	1	0
Engineering	5	Engineering	0	5
	2	MEB	0	2
	10	Eng Tech	0	10
	1	BioEng	0	1
	66	TOTAL	23	43

Additionally, the following departmentally-assigned classrooms are included:

Physics	1	Physics	1	0
Engineering	3	Engineering	3	0
	3	New Request	3	0
	7	TOTAL	30	

The new building program relocates 27 class labs or classrooms, provides 3 new class labs, and allows for 18 current class labs to be renovated into research and research support space.

WAYNE STATE UNIVERSITY

2012 Science & Engineering Lab Classroom

Science and Engineering Lab Classroom Building and Related Lab Renovations

Project Description

- New construction comprised of three floors totaling 45,300 gross square feet
- Estimated project cost: $19.5 million for new facility
- Estimated duration to complete: 18-24 months

Scope of Project

- Construct new facility at southeast corner of Warren and Third, providing 30 lab classrooms and associated support space

Justification

- Provides current technology and building amenities to effectively deliver science and engineering instruction
- Addresses negative student perception of existing lab classroom resources.
- Creates 35,000 sq. ft. state of the art research space

New Construction in Lot 53

WAYNE STATE UNIVERSITY

2012 Science & Engineering Lab Classroom

First Floor

Second and Third Floors

New Lab Classroom Building

PROPOSED

45,300 G.S.F

11 Physics Classrooms

Moved out of Physics Building

10 Dry Classrooms (1 Astronomy, 9 Physics)

1 Computer Lab

6 Engineering Assigned Classrooms

Moved out of Engineering + New Request

3 Computer Labs

3 EE/Dry Classrooms (New Request)

7 Physiology/ Biology Classrooms

Moved out of Shapero and/or Science Hall

4 Dry Classrooms

3 Wet Classrooms

3 ~~1~~ Chemistry Wet Classroom

Moved out of Life Science and Science Hall

3 ~~1~~ Wet Classrooms

2 Nutrition and Food Science Classrooms

Moved out of Science Hall

1 Food Prep

1 Wet Classroom

1 ~~3 Additional General Purpose Science Classrooms~~

Psychology Wet Lab

30 Total Classrooms

9 ~~6~~ Wet Classrooms

17 Dry Classrooms

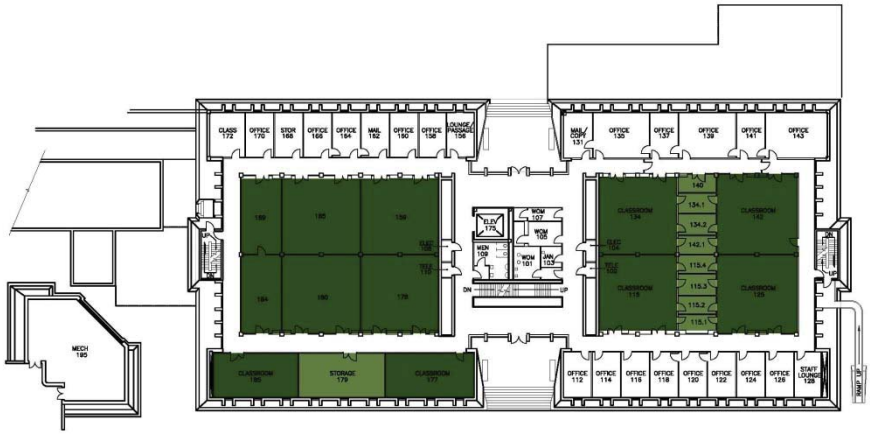
4 Computer Labs

Estimated Construction Cost: $19,500,000

Project Duration: 24 months

WAYNE STATE UNIVERSITY

2012 Science & Engineering Lab Classroom



First Floor

Physics Department

The first floor of the Physics Building is currently used for instruction. The building must be upgraded in order to continue this use.

Study completed by Rolf Jensen in 2009 outlined the major issues and complications of providing separation, and an additional study by SmithGroup in 2011 placed the value of the required renovation at $3M.

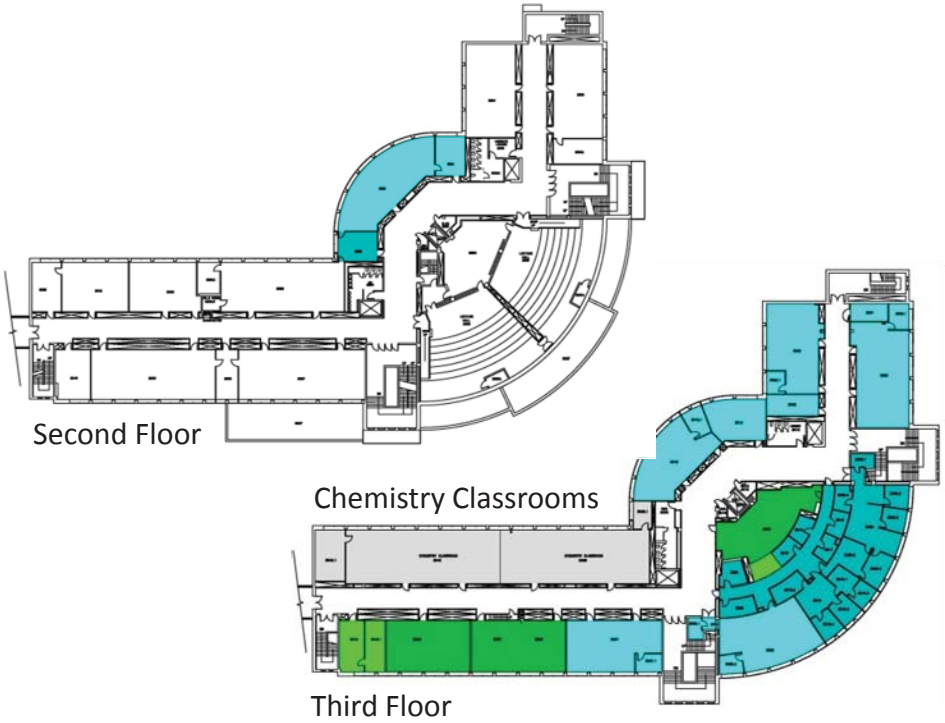
First floor classrooms serve Physics and Astronomy, undergrad and graduate classes. There are 2 departmentally-assigned classrooms, 10 lab classrooms, and 9 lab support spaces.

The second floor has a computer classroom and a large colloquium room.

The proposed Science and Engineering Lab Classroom building will relocate all teaching and support facilities currently in the building, and repurpose them for research.

WAYNE STATE UNIVERSITY

2012 Science & Engineering Lab Classroom



Nutrition and Food Science Department

The second and third floors of Science Hall are home to the Nutrition and Food Science Department.

The department is unable to further grow the program because of the lack of additional adjacent space.

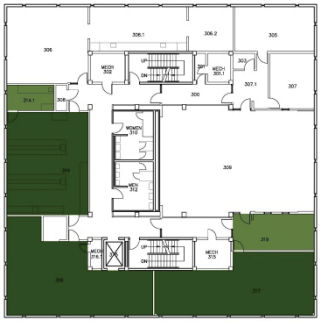
Two Chemistry lab classrooms with original fume hoods share the third floor with the department.

The fume hoods in this area are part of the original construction, and are energy hogs; improvement is required.

The proposed Science and Engineering Lab Classroom building will relocate the teaching and support facilities currently in the building for Nutrition and Food Science, and repurpose them for research.

WAYNE STATE UNIVERSITY

2012 Science & Engineering Lab Classroom



Third Floor

Fourth Floor

Biology Department

Shapero Hall

Undergrad and grad classes for Biology and Physiology.

Requires renovation in the lab and class lab spaces, particularly on the 3rd and 4th Floors. Fume hoods, finishes and casework are largely original and should be upgraded.

Science Hall

Undergrad and grad classes for Biology and Physiology.

Some labs on the first and second floor were minimally upgraded during recent renovations.

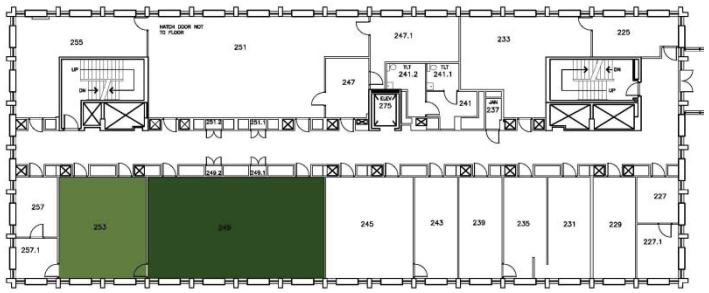
Biological Sciences Building

Support areas are underutilized and should be repurposed.

The proposed Science and Engineering Lab Classroom building will relocate some teaching and support facilities currently in Shapero and Science Hall.

WAYNE STATE UNIVERSITY

2012 Science & Engineering Lab Classroom



Second Floor

Chemistry Department

The Life Science Building is currently home to one Chemistry lab classroom and support space.

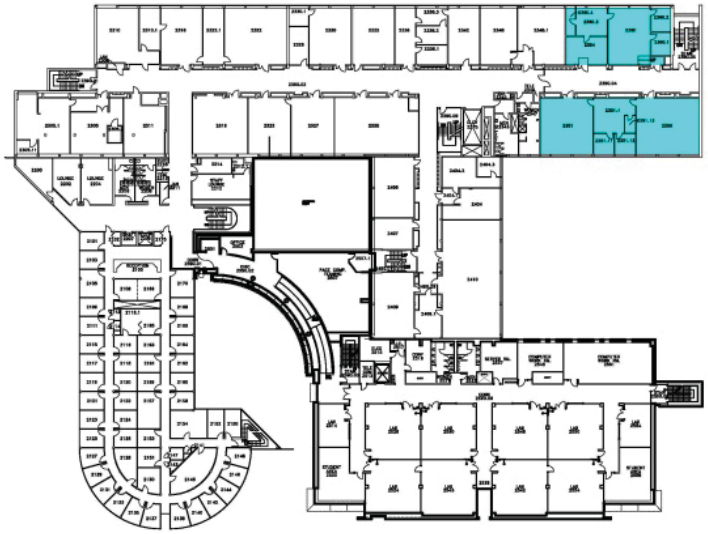
The building is largely unoccupied, and would require extensive renovation to re-populate.

Science Hall currently has 9 Chemistry lab classrooms.

The proposed Science and Engineering Lab Classroom building will remove the teaching and support facilities currently in Life Science, and remove 2 teaching and support facilities in Science Hall.

WAYNE STATE UNIVERSITY

2012 Science & Engineering Lab Classroom



Second Floor

Engineering Department

Current computer labs on the second floor for instruction could be repurposed for the growing research lab needs in the College of Engineering.

The proposed Science and Engineering Lab Classroom building will relocate the computer labs currently on the second floor of Engineering.