October 2011

The following items are in need of replacement or maintenance in the Science Building:

**THE ENTIRE SCIENCE BUILDING**

- **The elevator** in the Science Building is in need of overhaul/replacement. The current elevator is in need of a rebuild once again and is frequently out of service. Future projects should plan for the addition of a second elevator serving all floors and roof of the building to ensure access to all public spaces even if one elevator is out of service.

- **The heating system** in the entire building is in need of replacement. Current boiler system breaks heat control valves on a regular basis leading energy waste and unusable classrooms due to excessive heat production (we have already had to cancel classes again this semester due to classroom temperature). This issue is compounded by a forced air system that serves both offices and fume hood ventilation housed on the roof of the building. This combined system produces 3rd floor spaces which cannot be regulated without removing ventilation from other floors and spaces. The steam pipes in the basement offices and hallway need insulation to keep the heat from raising the basement temperature. The thermostats need to be checked, calibrated, and possibly relocated to serve their purposes.

- While the last bond measure paid for windows and replacement window screens and shades. The low quality screens have now broken in the majority of our classrooms and need to be replaced with a system that allows for the accurate control of light in our teaching spaces.

- **Windows and skylights** not replaced with last bond funds are in need of replacement, especially roof skylights and east facing windows above the main entrance.

- **The electrical and plumbing systems** in the entire building are in need of replacement. As things have been patched over the years it has led to a system where repairs are made with increasing difficulty. A redesign of lighting allowing for greater classroom control and plumbing allowing for drinkable usable non mineralized water would be desirable. All outdated plugs and electrical connections should be removed.

- **Fix Leaks** The roof and fourth floor of the science building currently leaks into the third floor storeroom due to sealing problems either in the floor or the drain. The fourth floor rooms need to have floors and drains sealed.

- **Painting** of many spaces (classrooms, storeroom and offices) is needed. It should be noted that given the age of the peeling paint prep work may involve removal of lead based paints and this apparently simple task may become a major undertaking.

- **Floors** need to be replaced in many areas of the Science building the linoleum floors are peeling off leading to a safety hazard any remodeling should replace/restore flooring

- **Student Bathrooms**, the conditions of the restrooms on in the science building are a hazard due to the volume of students and lack of soap and towel dispensers. ADA upgrades have dictated that at least one restroom with four sinks in served by a single towel holder which is often nonfunctional. Soap dispenser leaks onto the floor. Air ventilation in these spaces is poor and drainage backs up frequently due to the age of the plumbing. (see above)

- **Exterior and interior doors need fixing.** Currently the exterior sliding doors (ADA) to the basement break regularly, leaving the building open 24 hrs (as folks can simply slide door manually to open it).

- **Classroom maintenance, including upgrading instructional technology:**
  - Fix all **projection screens** (many are ripped or broken).
  - Fix all classroom **boards** so they are easily moved up and down. (See upgrades section for suggestions on upgrades)
  - Fix all **desks and chairs.** A number of our lecture halls with fixed desks (bolted in) have multiple broken desks/chairs that are unusable by students.
The following items are in need of **upgrade** in the Science Building:

- **Classroom upgrades:**
  - Outfit all teaching spaces (classrooms & laboratories) with a fixed **projection system** consisting of: overhead LCD projectors, speakers, screens and fixed control panels outdated equipment such as TV’s in S100 need to be removed.
  - Update all classroom **boards**. In some cases they should be outfitted with Dry Write **whiteboards** or other writing system mouse tablets that let you interact with the projection screens as though they were interactive white boards. Since the needs of the individual spaces vary, upgrades should be determined on lab needs, especially in some laboratory and nontraditional teaching spaces that need to protect expensive equipment from the accumulation of chalk dust.
  - **In-class computers** – all rooms should be outfitted with an in-class computer, and these computers should all be current and well maintained.
  - **Wireless routers/hotspots** should be available for all classes.

**In addition to the above needs for the building as a whole, the following departments have also identified some specific needs/concerns:**

**Astronomy**
- Outdoor observatory needs dome replacement. Electrical outlets not working properly. Telescope should be computer controlled and replaced.
- Need computer lab (willing to share).
- Offices on 4th floor – need more office space for part-time faculty.
- 3-D dome projection (big wish!)

**Biology**
Any redesign of the facilities should take into account the need for more teaching space. Currently the science building houses many different departments and offices. With our expanded demand and class offerings we have need of classrooms able to hold larger #’s of students. In particular it would be beneficial to have larger lecture rooms close to the laboratory spaces. *(More spaces like S300, S200, S136, S100, S108).* There is also a need for more faculty office space in proximity to teaching areas. These issues should be part of a larger structural reorganization of the facilities based on primary function (ie. The science building is the only place with certain laboratory resources so accessory needs like lecture halls and faculty offices should be available in close proximity to the labs, administrative functions and non science operations might need to move to other campus spaces to free up resources)

**Chemistry**
- **CHEM 205-206-207** – Convert these two undersized labs and one undersized computer lab into one regular sized lab and one 28-seat computer lab by moving the dividing walls. This will provide some open-access time in the computer lab when not used by chemistry courses.
- All chem labs (9-12 depending on projects) – Remodel labs to add additional gas valves, aspirators, hoods, electrical outlets as required. Install distilled water outlets into all labs. Install student backpack and coat storage. Replace wooden countertops with modern equivalent (ChemResin?). Improve and motorize chalkboards. Repaint the entire labs.
- Repair, replace, upgrade HVAC in all chemistry labs, prep rooms, and instrument rooms.
- **CHEM 203** – Remodel storeroom. Demo approximately 1/3 existing casework and install new work benches and 1/10 new casework. Demo obsolete plumbing. Install two hoods. Redesign sink and washing areas. Install employee lockers.
• CHEM 211-212 – Convert these two undersized labs into one regular sized lab by removing the dividing wall. 212 is currently used by CNIT for evening classes. Lab change would require a shared use of the space with chemistry labs offered in the day time.
• CHEM 257-259 – Convert these two undersized labs into one regular sized lab by removing the dividing wall. 259 is currently used by BTEC. Lab change would require a shared use of the space.
• 100 and 136 – Do we need lecture halls of this size anymore? Perhaps each room can be remodelled and split into 2 smaller lecture rooms.

CNIT (Computer Networking and Information Technology)
• Classroom space – Currently CNIT classrooms are scattered throughout the campus. This has negative consequences for the students because of the absence of a central place of operation for the CNIT department. Classrooms in proximity to CNIT central operations will create a stronger learning community, facilitate student/faculty interaction, and bring further cohesion to department functions.
• Unified Faculty Office Space - CNIT strives to centralize faculty office locations to create a stronger learning community, facilitate student/faculty interaction, and bring further cohesion to department functions. The current situation is not conducive to a community of teaching and learning.
• Space to house the new “TechSpot” computer refurbishing and in-house internship center proposed in a NSF-ATE Grant in October 2011. Specifically, the Mailroom space next to Science 8 would be ideal for this project.

Earth Sciences
• Earth Sciences need another lab room to meet the needs of our highest enrollment classes. Currently we are maxed out on every possible lab time for our one lab room, and we cannot add additional labs. Classes preregister full within a few weeks of the opening of registration.
• Earth Sciences needs an open-access computer lab in proximity to its lab rooms so that labs can be more integrated with necessary computer software. Willing to share!
• Boards and projections screens in S5 and S45 need fixing or replacement.
• Window screens in S5 and S45 need fixing or replacement.
• There are a number of doors that expand in heat and stick, some of which need to be ADA accessible. Examples: door into S135 and S134 lobby. Door to S5.
• Lab storeroom (S43) needs entry door from hallway. Need more storage cabinets for microscopes and larger equipment.

Engineering
Engineering Department’s maintenance and upgrade issues are similar to other academic departments in Science Building and need to be approached in a consistent manner regardless of the floor. There is only one Science building.

Physics
• Most of the Physics Dept. needs have been mentioned above, updating the lecture halls and lab rooms with repairs and updates to seating, floors, ceilings, walls, chalk boards, white boards and audio visual equipment to the standards mentioned above. We also have dark rooms that could be remodeled to better use the space. If the remodeling is very extensive it would be important to consider a remodel of the physics storeroom. The sink in particular in the storeroom is in need of repair.
• We also need support for the computers that we use in the laboratories. Our computers need updating and we need technical support to maintain them.
• We would like better wireless internet service as mentioned above.