CONSTRUCTION PLANNING AND PROGRESS MEETING
Thursday, March 14, 2013

Twitter hash tag #msuconstruction
• Board of Trustee updates

• New presentations
  • Bio-Engineering – New Building
  • Facility for Rare Isotope Beams – Electrical Duct Bank

• Project updates
  • Music Building Electrical Substation
  • Steam System and Road Reconstruction – West Circle Steam Loop 2013 (Phases 2 of 4)
  • Steam Systems and Road Reconstruction – Bogue Street and Shaw Lane Intersection
  • Auditorium – Renovations to Fairchild Theatre
  • Brody Complex – Utility Improvements – Phase V
Step 1: Authorization to Plan
  • Olin Health Center – Chiller Replacement

Step 2: Authorization to Proceed
  • Bio-Engineering – New Building
  • Facility for Rare Isotope Beams (FRIB) – Electrical Duct Bank

Step 3: Bid and Contract Award
  • Parking – Lot 67 (Jenison) - Reconstruction
Step 1: Authorization to Plan

- Athletic Fields – Munn Field – Artificial Turf Field

Step 2: Authorization to Proceed

- Spartan Stadium – Addition 5 – North End Zone
- Akers Hall – Dining and Life Safety Renovation
- Hannah Administration – Renovations to Second Floor – VP for Research
- Michigan State Police Post – Buildings 110G and 110H Renovations
- Well House No. 32 – Construct Original Building
Bio-Engineering – New Building
March 2013

Project area
Building location plan
Level-one plan
Level-two plan (and proposed levels three and four)
Bio-Engineering – New Building
March 2013

North elevation

South elevation
Bio Engineering - New Building
March 2013

CONSTRUCTION.MSU.EDU

MSU Construction

Bio Engineering Facility

In-Planning/Design
September 2011 - June 2013

Description: The construction of the Bio Engineering Facility will provide a unique opportunity to bring together research teams from engineering and biomedical research to promote the development of bio-engineering and engineering health sciences at Michigan State University.

The planning of this project is anticipated to include construction of a new bio engineering facility which is anticipated to connect with Life Science and the Clinical Center C-Wing. The facility will maximize research space in an open or modular lab layout with support rooms that house specialized and shared equipment procedure rooms, offices, and informal gathering space. It would take advantage of core research resources in the adjacent buildings where possible. The project would be located south of Life Science and Clinical Center in the South Academic District.

Questions, comments, concerns?
Design Representative: Jeff Kasdorf, kasdorf@plant.msu.edu, 517-353-5141

Notice:
March 4, 2013—Infrastructure Planning and Facilities is the new unit under the governance of Ron Finn, recently appointed Vice President for Strategic Infrastructure Planning and Facilities. In upcoming months, this website will change to reflect the name and structure of the new unit. For more information on the reorganization, visit ipf.msu.edu/neworganization.
Music Building electrical substation nearing completion
Music Building electrical substation nearing completion
Panoramic of the inside of the Music Building electrical substation
View of the reconstructed steam tunnel leading into the Music Practice Building
Music Building - Replace Electrical Substation

In-Planning/Design
November 2008 - January 2013

Description: The Music Building is located on West Circle Drive across from IM Sports Circle. The electrical system needs to be upgraded. The upgrade will provide a double-ended electrical service to this building. This double-ended sub-station will be fed by two circuits. If there is a circuit failure, the other circuit can provide service to the facility without a power outage.

The new vault will be placed in an underground vault adjacent to the music-music practice pedestrian tunnel within the courtyard area of the two buildings. There will be space and provisions for an emergency generator in the new vault that can be added in the future. All work will be performed underground and will take about three months to be put in place.

Timeline: The project will start over Christmas break in 2012. The sheet pile driving required to construct the new vault will take place between the Christmas and New Year’s holidays to minimize noise interruption.

Questions, comments, concerns?

Design Representative: Scott Gardner, mgardner@ppplant.msu.edu, 517-432-0780

Construction Representative: Andy Linebaugh, alinebau@ppplant.msu.edu, 517-432-7103
View looking south along the Kalamazoo Bridge
Closer look at the Kalamazoo Bridge utility work
Beal Street will be closed until mid-June
Beal Street will be closed until mid-June
Removing existing asphalt pavement along Beal Street
Removing existing asphalt pavement along Beal Street
IM Circle electrical substation nearing completion
IM Circle electrical substation nearing completion
Steam Distribution - Replace West Circle Steam Loop Segment 2 (2013)

In-Construction

Description: The north campus arch-style steam tunnels are 87 to 102 years old and have significantly deteriorated. The structural anchors, pipe supports and steam equipment within these tunnels are severely deteriorated and require replacement or repair for safe and reliable operation of the steam distribution system. The water main in this area is also at the end of its useful life and should be increased in size for effective fire-fighting capability and reliability. Communication lines are in the same tunnels as steam and condensate return lines, which is not optimal. The existing electrical duct bank is currently full and requires additional ducts to be installed for future electrical improvements to this region of campus.

This project is anticipated to be the second phase of a four-phase program to replace the deteriorating north campus arch steam tunnels, and is anticipated to include replacing the existing deteriorated arch steam tunnel from IM Circle to vault 92, north of the MSU Library, along with repair and replacement of steam piping, supports and equipment within some existing steam tunnels. The project is also anticipated to include replacing the deteriorated cast-iron water main with a larger pipe to increase fire-flow capacity and reliability. Additional communication and electrical duct will be installed. West Circle Drive will be reconstructed with two traffic lanes and a bike lane to be consistent with current MSU transportation standards, including pedestrian, bicycle and vehicular traffic flow and safety. On-street parking removal will be investigated.

The proposed project is located along Beal Street and West Circle Drive, between the MSU Library and IM Circle in the North Academic District.
Project area
View of the location of the work on future steam vault 381 in front of Owen Hall
View of the location of the work on future steam vault 381 in front of Owen Hall
View of the progression work on steam vault 381 in front of Owen Hall
View looking east along Shaw Lane at the location of the work on steam vault 15
View of the utility/tunnel work being completed on steam vault 15
View of the utility/tunnel work being completed on steam vault 15
Reconstruct Bogue Street and Shaw Lane Road Intersection and Steam Distribution - Replace Steam Lines to Owen Graduate Hall

In-Construction
August 2013

Description: The existing Bogue Street and Shaw Lane traffic circle does not meet current U.S. Access Board’s design guidelines for public rights-of-way to provide equal accessibility for all users. These new standards require design modifications and traffic signals for pedestrian safety, particularly pedestrians with mobility disabilities. Additionally, these new standards do not support continued use of a traffic circle for an intersection with high volumes of pedestrians, bicycles, and vehicles. As part of the redesign of the Bogue Street and Shaw Lane intersection, the closure of a section of Bogue Street will allow for further expansion of the Facility for Rare Isotope Beams (FRIB).

There is also a need to address the steam distribution lines that are located below the Bogue Street and Shaw Lane intersection. The existing direct-buried steam distribution and condensate return lines securing Owen Graduate Hall were installed in 1957 and have been repaired several times during the last 10 years. They need to be replaced with a steam tunnel to ensure reliable steam service and provide flood protection measures.

The steam distribution area to be replaced is located between the east side of the Business Complex and the west wing of Owen Graduate Hall. The intersection of Bogue Street and Shaw Lane borders the central academic and residential districts.

This project involves reconstructing the Bogue Street and Shaw Lane traffic circle to be compliant with ADA standards. This will require converting the existing roundabout to a more conventional signalized intersection. The project includes the addition of bike lanes consistent with the campus master plan. The project incorporates closure of Bogue Street between Shaw Lane and Wilson Road to accommodate FRIB expansion. Accessibility to Wharton Center loop driveway will remain, allowing for drop-off, accessible parking, and short-term business at the Wharton Box Office, along with periodic service access to FRIB. The project will also replace deteriorating direct-buried steam and condensate lines with a steam tunnel from the east side of the Business Complex to the west side of Owen Graduate Hall.

Timetable: Construction is planned to begin in April 2013, with substantial completion in August 2013, and final completion by June 2014.

Check out the video below to learn more about the construction taking place.
Seating in Fairchild Theatre
Design scope

• Acoustical improvements
• Theatrical systems and infrastructure improvements
• Mechanical system upgrade
• Accessibility improvements
• Fire alarm system replacement for entire facility
• Acoustical banners
• Orchestra pit lift
• Orchestra shell towers
• Lighting catwalks and theatrical lighting distribution
• Acoustical banners
• Accessibility – exterior entry, elevator, toilets
Auditorium – Alterations to Fairchild Theatre
March 2013
Orchestra pit foundation work
Barrier-free access
MSU Fairchild Auditorium Road Closure Traffic Routing Plan

Work Duration: May 13 - June 2, 2013
CONSTRUCTION.MSU.EDU

Auditorium - Alterations to Fairchild Theatre

In-Planning/Design
June 2011 - June 2012

Description: The College of Music has had a longstanding need for an additional and acoustically appropriate venue to accommodate its numerous rehearsals, performances, classes and musical productions. The 560-seat Fairchild Theatre, located within the Auditorium at the intersection of Farm Lane and Auditorium Road, provides an adequately sized facility, but has limited effectiveness as a music venue due to the lack of an orchestra pit and proper acoustics. Alterations to Fairchild Theatre and related spaces will enable improved and full use of this currently underutilized facility.

This project also includes the relocation of the Department of Theatre’s scene shop, which is necessitated by the renovations to Fairchild Theatre. Programmatically, it will allow for the consolidation of the Music and Theatre scene shop needs and provide improvement of the scene shop working environment.

This project is anticipated to include:
- Installation of an orchestra pit with a lift system
- An orchestra shell with acoustical upgrades
- Relocation of the scene shop dressing room and prop storage room
- Renovation of existing, and construction of additional restrooms
- Barrier-free accessibility will expand access to the lower level of the building, Arena Theatre, upper balcony seating and second- and third-floor offices
- Installation of elevator

Questions, comments, concerns?

Construction Representative: Todd Wilson, tdwilson@ppplant.msu.edu, 517-432-4355
Project area
Segment 1A: Feb 4 2013 – March 13 2013
Segment 1B: March 13 2013 – April 19 2013
Segment 2A: May 6 2013 – June 29 2013
Segment 2B: June 10 2013 – July 17 2013
Segment 2C: June 17 2013 – June 27 2013
(Butterfield; June 17 2013 – August 20 2013 (Bailey to Brody)
Vault 341, east of Brody
Vault 341, east of Brody; placing concrete in
Vault 341, east of Brody
New pipe pits running steam
Direct buried steam line
Vault 341, east of Brody
**Brody Neighborhood – Utility Improvements – Phase V**

In-Construction
February 2013 - December 2013

**Description:** The utility distribution system in the Brody Neighborhood is more than 50 years old and no longer able to provide reliable service. The direct-buried steam and condensate return lines (which are involved in heating and cooling campus buildings) from Brody Hall to Bailey Hall and Emmons Hall were installed in 1957 and have been repaired several times.

This project involves replacing the steam and condensate distribution system and creating a loop from the Harrison Road bridge to Brody Hall. The loop provides redundancy so the complex can continue to be fed steam if there is a line break.

**Timeline:** Construction is planned to begin in April 2013, with substantial completion in August 2013, and final completion by August 2014.

**Questions, comments, concerns?**
Design Representative: John LeFevre, jlefevre@pplant.msu.edu, 517-884-6740
Help us keep campus safer this winter!

• To request services or to report dangerous spots on campus, call 353-1760.

• For more information on snow removal, visit www.pp.msu.edu and click on “campus snow plan.”

• E-mail feedback, suggestions and comments to snowplan@pplant.msu.edu.

• To let us know how we’re doing in general, visit www.pp.msu.edu and click on “Contact Us.”
Your help is welcome and appreciated!

WALKWAY ICE MELT

Please help us keep campus surfaces clear of snow and ice this winter. If you see an icy area, please sprinkle it with ice-melt compound.

The ice-melt compound is an environmentally friendly alternative to salt that is provided by your Physical Plant partners in snow removal:
• Building Services–Custodial Services
• Landscape Services

Questions or comments?
Call 517-353-1760

Thank you for your help!
Questions?
Greg Losch: MDOT Construction Engineer 517-335-3770
Loschg@michigan.gov

**MDOT’s 2013 Capital Investment**

In 2013, the Michigan Department of Transportation (MDOT) will invest more than $25 million on four busy corridors in the Greater Lansing and East Lansing areas. Significant improvements are planned along I-496, US-127, M-43 (Grand River Avenue) and M-99 (Martin Luther King Jr. Boulevard). Overall, construction involves work on 39 bridges, repairs to 9 miles of highway, installation of intelligent transportation cameras and message boards, traffic signal modernization, and enhancement projects.

- **I-496** — Bridge Work
- **M-99** (Martin Luther King Jr. Boulevard) — Road Work
- **US-127** — Bridge Work
- **S.B. US-127** — Auxiliary Lanes
- **M-43 (Grand River Avenue) and Michigan Avenue** — Road Work
Stay connected via social media

For updates on all things Physical Plant follow @MSUPhysPlant on twitter and become a fan of our facebook page – MSU Physical Plant Division. Also, check out our YouTube page at youtube.com/physicalplantmsu for virtual tours of major projects on campus.
BEFORE YOU GO, VISIT THE CONSTRUCTION ‘SITE’:

CONSTRUCTION.MSU.EDU

Key features:
- Construction Projects
  - Project info
  - Contact information
- Construction Detours
- Construction Junctions
- Construction Listserv
SURVEY ALERT!

Please fill one out before you leave if you did not do so already

- We have recently revamped our surveys in an effort to better understand your experience at Construction Junction.
- Please fill out your surveys and return them to the front table before you leave.
- We want your thoughts and suggestions about how you feel Construction Junction went, and what we could do to improve.
- Thank you in advance!
Construction Junctions continue monthly

Meetings are at 8:30 a.m.
the second Thursday of the month
in Room 112 at Brody Hall

• April 11
• May 9
• June 13

Please sign in and take a survey before you go!