CONSTRUCTION PLANNING AND PROGRESS MEETING

Brought to you by the Physical Plant Division

Thursday, March 8, 2012

Twitter hash tag #msuconstruction
• **Board of Trustee updates**

• **Project updates**
  • Steam Distribution – West Circle Steam Loop – 2012
  • Library – Chiller Replacement
  • Bailey and Rather Hall Renovations
  • Bott Building for Nursing and Education Research
  • Wells Hall Addition

• **Special presentations**
  • City of East Lansing Construction Projects
  • MDOT Construction Projects
Step 1: Authorization to Plan

- MSU College of Law – North Entrance Site Improvements
- Hannah Administration Building – Waterproof North Entrance Steps and Ramp
- Roads – Reconstruct Bogue Street and Shaw Lane Intersection – 2013
- Roads – Wilson Road Extension – Study

Step 2: Authorization to Proceed

- MSU Union – Renovations to First-Floor Lobby
- Music Building – Renovations to Room 128 Auditorium
- State Police Post – Demolition of Buildings
- Steam Distribution – West Circle Steam Loop – 2012
- McDonel Hall – Riverwalk Neighborhood Engagement Center
- Spartan Stadium – Replace Existing Scoreboards and Sound System
- Cyclotron – Facility for Rare Isotope Beams

Step 3: Bid and Contract Award

- Steam and Road Reconstruction – Chestnut Road and New Tunnel to IM West Building – 2012
- Armstrong and Bryan Halls – Renovations
- Akers Hall – Refurbish Passenger and Freight Elevators
- Brody Complex – Utility Improvements – Phase IV
Step 2: Authorization to Proceed

- Auditorium – Alterations to Fairchild Theatre
- Hannah Administration Building – Renovations to Ground and First Floors and North Entrance

Step 3: Bid and Contract Award

- Music Building – Renovations to Room 128 Auditorium
MSU Steam Distribution – Age and Type of System
Looking northeast at Morrill Hall; applying waterproofing to new steam vault
Looking west down West Circle; working inside new steam vault
Looking northwest to Landon Hall; steam vault work
Looking north toward Yakeley Hall; prepping for pour of steam vault’s base slab
Looking south toward I.M. Circle at future steam vault
Looking southwest toward Old College Field; view of tunnel section
Access point for crane to insert sections of pipe
Looking northwest toward Hannah Administration Building; new duct bank being installed
Looking east toward Bessey Hall; duct bank work
Communication materials

Internal display boards

Brochures
Communication materials

Michigan State University uses steam to heat campus buildings. Some of the steam tunnels, on MSU's historic north campus, are more than 100 years old and in need of repair to avoid failures of steam delivery to north campus buildings. This West Circle Steam Loop project will address all of those needed repairs and ensure reliable steam service to this part of campus.

- The project will occur in four segments spanning the summers of 2012 to 2015.
- The 2012 segment of the project will include four phases. The 2012 phases will replace the steam distribution loop around West Circle Drive and repair and replace steam piping, supports, and equipment within existing steam tunnels.
- For the most updated information and detour maps, visit: construction.msu.edu/westcircle2012

Construction site sign
More public meetings planned:

- **March 29:** 1:30 p.m., MSU Union, Parlor A
- **April 12:** 8:30 a.m., James B. Henry Center (Construction Junction)
- **May 10:** 8:30 a.m., B122 Wells Hall (Construction Junction)
- **June 14:** 10: 8:30 a.m., 1415 Biomedical and Physical Sciences Building (Construction Junction)
- **July 12:** 8:30 a.m., 1415 Biomedical and Physical Sciences Building (Construction Junction)
- **Aug. 9:** 8:30 a.m., 1415 Biomedical and Physical Sciences Building (Construction Junction)
Steam Distribution – West Circle Steam Loop – 2012
March 2012

Steam Distribution – West Circle Steam Loop – 2012

In Construction
May 2012 - December 2012

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 also require replacement or repair for safe and reliable operation of the steam distribution system.

This project is the first phase of a four-phase program to replace the deteriorating north campus arch steam tunnels, and will include installation of a new steam distribution loop around West Circle (from Lansing Hall moving clockwise to a point east of Human Ecology). Repair and replacement of steam piping, supports and equipment within some existing steam tunnels will also be included. This will increase the reliability of the steam system and provide a mechanism to remove arch steam tunnel segments with minimum impact to campus building operations. During this construction, all of the buildings in the zone of influence will be converted to high-pressure steam and pressure-condensate return lines, improving energy efficiency. The deteriorated cast-iron water main will be replaced to increase fireflow capacity and reliability. Additional communication and electrical duct will be installed according to master plans.

West Circle Drive will be replaced with two traffic lanes and one bike lane, providing appropriate vehicular, pedestrian and bicyclist safety improvements.

East Circle Drive from the east side of Beal Hall to West Circle Drive will be replaced with two traffic lanes and two bike lanes (connecting to the existing profile in front of the EB and Edythe Broad Art Museum), providing appropriate vehicular, pedestrian and bicyclist safety improvements. The intersection of Beal Street and West Circle will be reconfigured to provide a safer environment and ten on-street parking spaces will be removed north of Adams Field to alleviate pedestrian/vehicular visibility issues in this area.

The project is located on north campus, along West Circle Drive, between Beal Street and East Circle Drive (Eustace-Cole Hall) in the north academic district.

Questions, comments, concerns?
Design Representative: Scott Gardner, mgardner@plant.msu.edu, 517-432-0782
Design Representative: John Lefever, jlefevre@plant.msu.edu, 517-884-6740
Construction Representative: Andy Linebaugh, alinebau@plant.msu.edu, 517-432-7103

Presentations
New plaza seating area on top of the electrical vault
Temporary access ramp has been maintained to south entrance
New absorbers in place in east basement mechanical room
Interior of new electric vault
View inside new cooling towers on east roof
West penthouse new airhandler
West penthouse view of new hot water heating pumps and converter
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Main Library Chiller Replacement

In-Construction
July 2011 - April 2012

Description: The Main Library, located on West Circle Drive between L.M. Sports Circle and Olds Hall, serves as the central hub for Michigan State University’s knowledge base, on-campus research, and quiet study for the campus community.

MSU owns more than 4,500,000 volumes and 33,000 publications, along with maps, recordings, and other resources. The Main Library houses many items that, due to their age, require specific temperature and humidity criteria be met to sustain preservation. This is accomplished using steam absorption chillers to create chilled water for the building’s air-conditioning system. It was discovered during a maintenance inspection that the significant components of the chillers had reached the end of their service life and need to be replaced. In addition, a recent study concluded that the cooling load has increased such that there is no longer system redundancy to sustain operations during a maintenance event.

This project will include a complete replacement of the building’s chilled water system, including:

- Excavation of the south and west sides of the east wing of the building;
- Complete demolition and replacement of existing absorption machines, chilled water pumps and piping in basement mechanical room and cooling towers;
- New below-grade enclosure on the west side of the east wing for the new electrical substation;
- Expansion of area along the south side of the east wing for chiller installation;
- New electrical substation transformers and equipment to serve the additional electrical demand in the building;
- New steam absorption chillers, pumps and cooling towers;
- Replacement of sections of steam distribution piping in the steam tunnel leading to the library;
- Four separate air handling units in the west wing to be replaced with a single, variable-volume air-handling unit;
- Electrical service connections to equipment;
- HVAC control connections;
- System balancing;
- Site restoration upon the completion of the project including, but not limited to, sidewalks, plantings, sections of Lot 11 (located south of the building), installation of a pedestrian speed table across the service drive and the creation of a barrier-free, universal plaza leading to the south entrance of the building.

Questions, comments, concerns?

Design Representative: Jacob Sabens; jsabens@plant.msu.edu, 517-355-6493
Renovated student rooms
Student restrooms
Shower stalls in restrooms
Student restrooms
Area closed from May 2011 to May 2012.

MSU Construction Detours
March 2012

Detour Legend
- CLOSED
- MOTORIST DETOURS
- PEDESTRIAN DETOURS
- BARRIER-FREE PARKING
- BUILDINGS
- ROADS
- PARKING LOTS
- WOODLOTS
Bailey and Rather Hall Renovations
March 2012

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Bailey/Rather Hall Renovations

In-Construction
April 2011 - May 2012

Description: Bailey Hall and Rather Hall are the second and third of six residence halls to be renovated in the Brody Neighborhood. Improvements will be made to the buildings' infrastructures, common spaces, amenities, resident rooms, and the surrounding site. Exterior renovations will maintain existing building materials while adding metal panels at the entrances, corrugated metal on the roofs, and small green roof areas. These design elements have also been implemented on both the main Brody Hall building and the Enmons Hall design.

Residential and Hospitality Services (RHS) believes it would be best to expedite construction by combining construction of Bailey and Rather halls into a single project.

Along with housing approximately 430 residents, Bailey will also become home to the Residential Initiative on the Study of the Environment (RISE) and the Charles Drew Science Scholars Program. Together these programs consist of approximately 200 students.

Elements of the renovations include:
- Major upgrades to the mechanical, electrical and ventilation system
- Life-safety systems upgrades
- ADA code-required modifications
- Passenger elevator installation
- Asbestos abatement
- Lighting upgrades
- Floor and ceiling replacement
- Roofing and exterior repair
- Window replacement
- Reception desk modifications
- Balcony removals
- Adding a community kitchen
- Reconfiguring community bathrooms
- Site work to include a heated walkway, patio and general landscape upgrades
- Green roof outside second-floor offices above the loading dock
North elevation in January
North elevation now
Northwest elevation before

West elevation after
West elevation connection link
Framing on the third floor

Drywall on the third floor
Roof skylights
Geothermal gear
Switch gear
First floor framing
Second floor hallway
Second floor open office area
First floor main corridor
Presentation space
Wells Hall Addition/Morrill Hall Replacement

In-Construction
September 2010 - May 2012

Description: In June 2010, the Michigan State University Board of Trustees approved a plan to demolish venerable Morrill Hall on the campus’s north side. To provide space for current Morrill Hall occupants, the plan includes an addition to Wells Hall and renovations to the Old Horticulture Building.

Close monitoring of the internal wooden structure of Morrill Hall has revealed irreparable deterioration, indicating that the more-than-100-year-old building is approaching the end of its useful life. The university has determined that reconstruction and restoration of the building, which was built in 1900, would not be economically feasible.

The replacement of Morrill Hall will offer the university a unique opportunity to significantly upgrade the quality of space for its current occupants, and to achieve a more efficient use of space through effective design and allocation.

The departments of English and History currently occupy the majority of space in Morrill Hall. The project will create a language hub at Wells Hall including English; Linguistics and Germanic, Slavic, Asian, and African Languages; Spanish and Portuguese; English Language Center; and French, Classics and Italian – and place these units in proximity to colleagues in the College of Education and International Studies Programs. Religious Studies and African American African studies also will relocate to Wells Hall. The ultimate goal is to create cohesive and vibrant communities for students, faculty and staff.

History will relocate to Old Horticulture in total and maintain its north campus location. Renovations to Old Horticulture are planned as part of this project to accommodate the relocated History department.

This project will also include a green roof on the one-story addition, a new and visible east-west entrance to Wells Hall, removal of on-street parking, creation of adjacent barrier-free parking and street realignment and widening.

Demolition of Morrill Hall will follow the completion of the Wells Hall Addition. The work scope currently involves demolition of structure, site-restoration with lawn, sidewalks, benches and commemorative signage. As the demolition and site plan details are further developed, opportunities for site restoration will be explored, including ways to commemorate the significance of the Morrill Act and potentially using pieces of the Morrill Hall building.

Originally opened in 1900, Morrill Hall is named in honor of Justin Smith Morrill, the Vermont senator for whom the Morrill Act is named and what brought about the establishment of the land-grant university system. The program focuses on the history and importance of Morrill Hall as well as the influential Morrill Act.
City of East Lansing summer 2012 construction projects

Harrison Road, other
CITY OF EAST LANSING

2012 INFRASTRUCTURE IMPROVEMENTS FOR THE ANN STREET REDEVELOPMENT AREA

TENTATIVE PROJECT SCHEDULE
ADVERTISE FOR BID......................MARCH 14, 2012
OPEN BIDS...............................APRIL 10, 2012
BEGIN CONSTRUCTION.................LATE APRIL 2012
COMPLETE SEWER & WATER..........EARLY AUGUST 2012
COMPLETE PROJECT...................AUGUST 31, 2012

PROJECT LENGTH: 0.55 MILES
CONTRACT FOR: ROAD CONSTRUCTION INCLUDING NEW HYDROLOCIC WATER MAIN REPLACEMENT, CURB AND GUTTER REPLACEMENT, SIDEWALK REPLACEMENT, AND SEWER REPLACEMENT

APPROVAL
City of East Lansing summer 2012 construction projects
Harrison Road reconstruction from Trowbridge to Mt. Hope

Harrison / Trowbridge Intersection:
W.B. Harrison Utility Crossing: 10:00 PM to 6:00 AM
W.B. Trowbridge Closed - Detoured North
E.B. Trowbridge Maintained - Single Lane
E.B. Harrison Utility Crossing: 10:00 PM to 6:00 AM
W.B. Trowbridge Maintained
E.B. Trowbridge Maintained - Single Lane
Intersection Curb/Ramp Work: 9:30 AM to 3:30 PM
W.B. & E.B. Trowbridge Maintained - Single Lane
Intersection Removal/Paving: 10:00 PM to 6:00 AM
Intersection Closed

N.B. & S.B. Harrison Ave.: N. Crescent to Trowbridge
Closed To All Traffic: May 7th thru End Of July
Traffic To Follow Detour Route

S.B. Harrison Ave.: Mt. Hope to N. Crescent
Closed During Reconstruction Work
Two-Way Traffic Maintained In N.B. Lanes

N.B. Harrison Ave.: Mt. Hope to N. Crescent
Closed During Reconstruction Work
Two-Way Traffic Maintained In S.B. Lanes
Michigan Department of Transportation construction projects
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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
Construction Junctions continue monthly

Meetings are at 8:30 a.m. 
the second Thursday of the month

• April 12 (A170 Henry Center)
• May 10
• June 14 (1415 Biomedical and Physical Sciences Building)

Please sign in and take a survey before you go!