CONSTRUCTION PLANNING AND PROGRESS MEETING
BROUGHT TO YOU BY INFRASTRUCTURE PLANNING AND FACILITIES
October 2016
PLEASE LET US KNOW HOW WE’RE DOING

• We want your thoughts and suggestions about how you feel about this new online version of Construction Junction, and what we might do to improve.

• Please leave any comments or suggestions in the feedback box on the Construction Junction webpage located at: http://ipf.msu.edu/construction/construction-junction/index.html.

• Thank you in advance!
MSU Board of Trustees updates

New projects
• Wharton Center - replace existing roof sections 1, 2, 3 and 4
• Roads - Trowbridge Road - repaving Harrison Road to Oyer
• Parking Lot 92 - reconstruction and expansion

Project updates
• 1855 Place
• Breslin Student Events Center - facility upgrades
• T.B. Simon Power Plant - upgrade utility substation
Step 2: Authorization to proceed

- IM Sports West – replace pool and locker room HVAC systems
- Hubbard Hall – exterior masonry repair and window replacement – phase two
Step 2: Authorization to proceed

- Parking – Lot 63 – Breslin
- Wharton Center - replace existing roof sections 1, 2, 3 and 4
- Roads - Trowbridge Road - repaving Harrison Road to Oyer
- Parking Lot 92 - reconstruction and expansion
Wharton Center – replace existing roof sections one, two, three and four (CP16193)
Why?

- Original roof was installed in 1982.
- Roof is beginning to fail and causing potential structural and other cosmetic building damage.
- Infrared study showed significant moisture in existing roof insulation barrier.

Project Scope

- Remove existing conventional roofs and replace with new.
- Inverted Roof Membrane Assembly (IRMA) style roof to be installed on roof three – over Great Hall stage.
Impacts

- Smells inside building; will be alleviated by installing temporary charcoal filters.
- Loading dock will be used as a site setup space, causing one month of temporary relocated parking.
- Sidewalk closure between FRIB and Wharton for one month. This will be further coordinated during design/construction.
- Building will remain open during work. Construction will avoid major performances

Schedule

- Construction start: June 26, 2017
- Construction complete: Sept. 22, 2017
Wharton Center – site plan

Affected roof sections in red

Potential site layout in yellow
Looking east down to roof two from roof one
Looking northeast on roof one. Roof three is on top of Great Hall stage (on right).
Coping detail from roof one to recent Wharton addition.
Wharton Center – replace existing roof sections one, two, three and four (CP16193)

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Project Representative: Brandon Charland
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Wharton Center - replace existing roof sections one, two, three and four

Project phase: Planning/Design

Project details:
- The original roof was installed in 1992, and is beginning to fail and cause potential structural and other cosmetic building damage.
- Recent infrared study showed significant moisture in the existing roof insulation barrier indicating the need for replacement.

Project scope:
- Remove existing conventional roofs and replace with new.
- Inverted Roof Membrane Assembly (RMA) style roof to be installed on roof three – over Great Hall stage.

Impacts:
- Smells inside building will be alleviated by installing temporary charcoal filters.
- Loading dock will be used as a site setup space, causing one month of temporary relocated parking.
- Sidewalk closure between FRIB and Wharton for one month. This will be further coordinated during design/Construction.
- Building will remain open during work. Construction will avoid major performances.
Project location

Roads – Trowbridge Road – repaving Harrison Road to Oyer (CP16204)
Why?

- Trowbridge Road has evolved into the primary entrance to campus; and the pavement has deteriorated.
- Goal is to achieve 20-year life of new pavement.
Project scope

• Mill and resurface both eastbound and westbound roadways (four lanes and two bike lanes) from Harrison Road to Oyer Speech and Hearing parking lot.
Impacts:

• Pedestrian and vehicular circulation
• Our goal is to maintain a minimum of one lane open in both directions, so detours will not be necessary.

Schedule:

• Construction start: June 5, 2017
• Construction complete: July 28, 2017
Trowbridge Road and Red Cedar Road intersection
Roads – Trowbridge Road – repaving Harrison Road to Oyer (CP16204)

East of Trowbridge Road and Chestnut Road intersection
Eastbound Trowbridge Road near Visitor Welcome Center
Eastbound Trowbridge Road near Visitor Welcome Center
Roads – Trowbridge Road – repaving Harrison Road to Oyer (CP16204)

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Design representative:
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Trowbridge Road repaving - Harrison Road to Oyer Speech and Hearing

Project phase: Planning/Design

Project detail:
• Trowbridge Road has evolved into the primary entrance to campus. As such, pavement deterioration has necessitated replacement.
• Goal is to achieve a 20-year life span for the new pavement.

Project scope:
• Mill and resurface both eastbound and westbound roadways (four lanes and two bike lanes) from Harrison Road to Oyer Speech and Hearing parking lot.

Timeline:
• Construction start: June 5, 2017
• Construction completion: July 28, 2017

Questions?
• Tressa Wahl, design representative, twahl@ipf.msu.edu, (517) 884-2185
Parking Lot 92 – reconstruction and expansion (CP15193)
Why?

- The pavement structure has degraded to a point that it is no longer financially responsible to continue patching.
- Full reconstruction is needed.
Project scope

- Full reconstruction of the lot
- Provide additional parking capacity
- Update to current ADA and MSU construction standards
- Reduce maintenance costs
Impacts

- The parking lot will be offline for the duration of the construction

Schedule

- Construction start: May 8, 2017
- Ready for occupancy: July 28, 2017
Aerial view of existing site condition
Parking Lot 92 – reconstruction and expansion  

Proposed layout

Align new collector walk with existing crosswalk location
Proposed layout

Align new collector walk with existing crosswalk location
Existing conditions
Existing conditions
Existing conditions
Existing conditions
Design representative: Dave Wilber
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Why?

• Create a living environment that supports both single students and student families around the resources they need to be academically successful

• Create an institutional asset to further our world class land-grant mission

• Consolidate office spaces from across campus, freeing up space for academic programs while saving resources and improving communication

• Create synergies between Residential and Hospitality Services and Intercollegiate Athletics
Project scope

• 102,000 square foot mixed use office building (LEED Silver)
  o RHS offices
  o Intercollegiate Athletics offices
  o Retail

• 438,000 square foot student apartments
  o Single student apartments (Studio, 2BR, 4BR)
  o Family housing apartments (1BR, 2BR)

• Parking (2,075 spaces)
  o Deck
  o Student (apartments)
  o Event\staff

• Funding Source – auxiliary funds
  o RHS
  o Intercollegiate Athletics
  o Parking
Timeline

- Construction start: Summer 2015
- Parking Ramp 7 open: April 2016
- Family Student Housing Unit occupancy: August 2016
- Single Student Housing Unit occupancy: August 2017
- Starbucks, Marketplace, Apparel Shop and Ticketing Office open: August 2017
- Office building, Hall of Champions and Housing Assignment Office occupancy: October 2017
Site selection and existing conditions

- **University Village**: To Remain
- **Event Parking**: To Be Relocated on Site
- **State Police Bldg.**: To Be Demolished
- **Scene Shop Pole Barn**: To Be Replaced
- **Police Pole Barn**: To Be Replaced

**1855 Place (CP13351)**
October 2016
Site plan
Phase one site phasing plan – September 2015
Phase two site phasing plan – August 2016
1855 Place (CP13351)
October 2016

Site plan – aerial view

- Family apartment buildings
- Existing University Village
- Building “D”
- Building “C”
- Building “B”
- Building “A”
- Parking Ramp 7
- Office building
- First-floor retail

1855 Place (CP13351)
October 2016
Office\mixed-use building – view from southeast
View of mixed-use building from Harrison and Kalamazoo
Work continues on the office/retail towers
Workmen prepare for concrete pouring at the office/retail tower
Finishing work post concrete pour
Steel framing of “end caps” on student housing units
Student townhome (background) and student apartment units
Siding work continues at the student townhome units
An example of some of the finishes in the student townhomes
Project webcam

http://oxblue.com/open/Walbridge/SpartanVillage
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Why?

• To enhance the student, alumni, fan and public experience by improving the functionality of the Events Center
• Create a lasting legacy by integrating a sense of Spartan tradition throughout the facility
• Extend the useful life of the building by improving services to the fans and implementing major maintenance items
Project scope

• Phase one:
  o 22,000 square foot addition around building
  o Expand concourse
  o Renovate/upgrade restroom facilities, increase fixture count
  o Renovate concessions stands
  o Improve entry vestibules to main concourse
  o Improve finish levels and experience on concourse
  o Improve site conditions for ingress and egress
  o Improve site security
  o Replace chiller system
  o Connect to East Lansing water system

• Phase two:
  o 30,000 square foot addition
  o Create sense of main entry; destination to the building
  o Create a Basketball Hall of History
Timeline

• Construction start: January 2016
• Ready for occupancy: August 2017
Phases one and two – floor plan concourse scope outline
Site improvements

Hall of History Site Plan

1. Ramp location for Kalamazoo Street mid-block crossing
2. Satellite truck and ambulance parking area
3. Existing crosswalk location
4. New crosswalk to coordinate with new Special Housing Needs project
5. Concrete site wall, with planting bed
6. Re-grade parking lot to meet ADA requirements
7. Drop-off zone
8. Proposed Hall of History Plaza
August 22 through November 30 – phasing plan
Northwest gate – Kalamazoo Street
Northwest gate ticket office
Northwest entry plaza
Work continues on new expanded concourse areas still in construction
Finishing work on terrazo flooring Sparty heads
Completed areas are already being used to host events
Phase two – exterior – Hall of History
Breslin Student Events Center – facility upgrades (CP14110)
October 2016

Project webcam

http://oxblue.com/open/MSU/Breslin
Breslin Student Events Center – facility upgrades (CP14110)
October 2016

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The Jack Breslin Student Events Center opened in 1989. The building hosts more than 100 events annually, including acting as the home to MSU men’s and women’s basketball. In 2013, Residential and Hospitality Services and Intercollegiate Athletics commissioned studies to examine how to use the facility to its highest functional capacity as a major event center for MSU. Specifically, the studies examined current building conditions, variances with current building codes, energy saving opportunities and enhancing the patron experience at events.

Project details:
- 26,000 square-foot addition around building concourse, renovation and improvements of restroom facilities, concession stands,
Why?

• To provide increased electrical power capacity and delivery reliability to FRIB, the T.B. Simon Power Plant and the MSU campus.

Project Scope

• The project consists of the three elements:
  o An underground 138 kV transmission line from the existing Michigan Electric Transmission Company transmission line to the T.B. Simon Power Plant.
  o Installation of a larger capacity substation, consisting of two 50 MVA transformers, at the T.B. Simon Power Plant with space for a future third transformer and connection to the new switch house installed to supply FRIB.
  o Installation of a substation along the Michigan Electric Transmission line.
Impact

• Limited duration road closures of Bennet and Forest Roads, and Pavilion Drive, April thru August 2016.
• Site restoration will be performed by the Infrastructure Planning and Facilities, Landscape Services department.
• Critical coordination of energizing the system between the T.B. Simon Power Plant and FRIB.

Schedule:

• Construction start: January 2016
• Power available: March 2017
Consumers Energy substation

138 kV underground transmission line

METC Electric Transmission line
Crane lift of the first 50MVA transformer into position at the Consumer’s Energy Substation
Installations at the METC switch station near completion
Restoration of MSU Farm Services areas affected
T.B. Simon Power Plant – Upgrade Utility Substation (CP14218)
October 2016

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MSU's co-generation steam and electrical power plant meets the power and steam needs for a majority of the developed campus north of Mt. Hope Road.

Starting in approximately 2019, an additional 18-20 megawatts of electrical power will be needed to operate the Facility for Rare Isotope Beams (FRIB). The University is also actively expanding its research capacity, which will require additional electrical power and heat.

At present, the T.B. Simon Power Plant can reliably meet the peak electrical needs of the campus. In addition to the Power Plant's self-generation facilities, an electrical substation provides a connection between the Power Plant and the local utility electric grid. The substation makes it possible for the University to purchase electric power from the local utility and provides firing capacity for the Power Plant. With the development of the FRIB project and projected growth of the campus infrastructure, however, the production capabilities and the current capacity of the substation are insufficient to meet the University's increasing need for electric power.

The proposed location for the new switching station is along Power Line Drive approximately 400 yards east of College Road. The total area is estimated at approximately 1.0 acres, with less than one acre needed in addition to the existing easement. This location reduces the length of the new transmission lines and could result in savings related to duct bank construction costs. The switching station will include the installation of new breakers and related equipment necessary to connect the new 15kV duct bank to the supply grid. The project will also include an access road around the switching station to provide entry and exit to the farm management facilities located in this area. Evergreen plantings will be implemented between the switch station and College Road to enhance both security and aesthetics.
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Construction Junctions continue monthly

Presentations will be available on the Construction Junction website by the seventh of each month.

Thank you for your interest, and we hope you’ll visit us again soon!