Neuroscience Research Building Project Update

- Project Scope has four components
  1. Neuroscience Research Building (609,000 Building Gross)
  2. Utility plant
  3. 1,834 spot parking garage
  4. Elevated Pedestrian Ling – Campus Connector

- Specialty spaces in basement, third and tenth floors
  - 11 floors (2.5 floors shell, 4, 5 and ½ ten)
  - Move in with 88 PI’s with growth potential to 127 (over 1347 occupants are anticipated at full build out)

- Project KPI’s
  - Project has had no safety incidents
  - Project is tracking LEED Silver
  - Project is on schedule and budget
Neuroscience Research Building Project Design Update

• Research Floor Design Development Continued through July, 2020
  • Floor & theme representative meetings were held Progress sets were reviewed in page turns during the month of June
  • Bid packages were released as planned and on schedule
  • Team is moving into the start of Construction Document Process
  • Planning for specialty spaces continue
  • Major equipment updates are taking place by Floor/Theme (see schedule by floor)

• Design Development Concepts for major project components were approved by the Executive Committee of the Project for the following areas (Exterior design, interior public Areas, landscape and parking garage)
Neuroscience Research Building Shared Space Strategies

Flexibility and Fluidity of Space - A Critical Success Factor

Interior design elements and design process work to promote collaboration and support sustainability objectives

- Shared spaces and open labs
  - Central vivarium
  - Some labs, offices and support space
  - Specialty spaces (MRI, Alafi, WUCCI, Fish Facility, Mouse Genetics Core, and various specialty cores)
  - Integration with Green Laboratories program
  - Strategic alignment of laboratory managers
  - Efficient freezer space plan and use/reduced equipment inventory due to shared spaces
Neuroscience Research Building Shared Space Strategies

Flexibility promotes utility, prolongs need for renovation

• Prototypical lab configurations and lab support rooms
• Lab rigs use curtains and panelized systems enable successful collocation
• Standardized spaces in central and vertical vivarium for ease in use and reassignment, and increase flexibility of space

Large procedure room, isolation room, fume hood room, microscopy room, technology room, tissue culture room
Exterior Design Update
West entry - view looking east
Landscape Design Update
Newstead/Duncan Landscape

The new medical research building serves as a center point between the Washington University Medical Campus and Cortex. This key intersection is highly visible to both pedestrians and vehicles with Duncan serving as the main east/west pedestrian spine of the two districts. Newstead serves a main vehicular connection to I-64 and Forest Park Parkway helping with traffic relief within the district.

The Duncan side is primarily in shadow of the building with the most visibility from the main public lobby space. The plant selections are intended to be light and airy with a more casual layout and serves as a foundation to the glassy vertical structure. The pedestrian walks along Duncan are wide and simple with lighting to reflect the Cortex District for safety and security.

Newstead landscape takes on a more traditional/uniform appearance allowing for a parkway strip between the road and sidewalk. The west facing landscape will take into consideration plant material that will be more resilient to the harsher sun conditions.

Landscape Design Considerations:

- Provide Health Environments
- Enhance the Quality of the Outdoor Experience Educational/Creative Opportunities
- Reduce need for Water, Fertilizer, Herbicides Preference to Native & Adaptive Species & Cultivars
- Reduce Urban Heat Island
- Biodiversity
- Stormwater Management
- Design for Resiliency
- Design for Four Seasons
- Soil Prep and Drainage
- Reduction of Maintenance
- Irrigation Design with low flow nozzles and rain sensors
View looking southeast
Southeast corner
East Pedestrian Entrance
Level 03 Terrace
Parking Garage
Garage design – view looking northeast
Garage view looking north
Garage view looking north-northeast
Interior Design Public Space
Level 01 – Lobby Level
Material Palette/Lobby
Level 03 – Link Level
L03 Floor Plan
Food Service, Link Access, Shared Research
Project Design Next Steps
Neuroscience Research Building – Design Look Ahead

• Upcoming Project Development:
  • Focused Refinement of Lab Floors – July thru October
  • Exterior Signage Opportunities – Fall, 2020
  • Development of all Plans – July thru August
  • Coordination of Long Lead MEP Items – August
  • Coordination of all Engineering Systems – August thru October
  • Final WUSM Review Period – November
  • Complete Package for Bid and Permit – December, 2020
Construction Update
• June 26, 2020 – Tower Crane # 1 installation was completed.

• July 14, 2020 to October 6, 2020 – Earth Retention System -- Continuation of excavation and drilled pier installation (40 of 106 piers completed as of 7/29).

• Design Assist Partners Selected –
  • Exterior Enclosure: Ventana
  • Electrical: PayneCrest Electric
  • Mech/Plumbing: Corrigan/Murphy JV
  • Fire Protection: Ahern

• Concrete Superstructure Contractors Selected:
  • Concrete – Concrete Strategies
  • Rebar – Penn Services
Neuroscience Research Building – Design Look Ahead

• Upcoming Scope
  • Design Assist MEP Coordination Kick-off – End of July 2020
  • Footings & Basement Foundations – August 2020
  • Waterproofing – End of September 2020
  • Underground rough-in – September 2020
  • Steam Line Excavation and Shoring at Utility Plan – August 2020
  • CD’s for Bid – December, 2020
  • Final GMP April, 2021
# Neuroscience Building Project Schedule

## 4370 Research Building - Project Schedule Summary

<table>
<thead>
<tr>
<th>Design, Permits and Bid Packages</th>
<th>Start</th>
<th>Finish</th>
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<tr>
<td>DD WUSM Review</td>
<td>6/5/2020</td>
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Enabling Projects Construction Update
Enabling Projects Update – Newstead Streets Improvement

• The scope of the project includes:
  • Widen Newstead Ave. from Clayton Ave. to Forest Park Ave. from three (3) lanes to five (5) lanes *(four (4) traffic lanes and a universal lane)*
  • Widen the METRO Crossing from 36’ wide to 50’ wide
  • Add a dedicated right turn lane at Clayton Ave.
  • Complete replacement and re-signalization of the intersections at Duncan Ave. and Forest Park Ave.
  • Improve alignment and throughput circulation at Duncan and Newstead
  • Provide ADA and pedestrian safety improvements along Newstead
Current Work Status

*Newstead Avenue Street Improvements*

- Phase 7 - Installation of a new pedestrian crosswalk on the east side of the Newstead and Forest Park intersection ongoing through early August.

- Phase 8 - Installation of a new pedestrian crosswalk on the west side of the Newstead and Forest Park intersection – Work on relocation of a fire hydrant in the median island starts the work on the west side of Newstead at Forest Park the week of 7/27/20. Work on the west side cross walk will begin in early August and continue through late August.

- Metrolink Track Crossing Widening – Grading and widening of the track crossing is complete. Signal work by METRO is ongoing from July through November. Once all signal work is complete and the crossing functional, the new lane(s) of road widening can open.
Enabling Projects Update – Newstead Streets Improvement

Schedule & Budget

- Planning – Design RFP: May 2018 – July 2018
- Planning Funding Approval: July 2018
- Design: August 2018 – May 2019
- Bidding: May 2019 – July 2019
- Project/Final Funding Approval: July 2019 – September 2019
- Land Transactions & Permit Approval: September 2019 – February 2020
- Construction: February 2020 – March 2021
- Project Completion: March 2021

Project was funded by WUSM and BJH and is split 50/50 @ $7.3M
Enabling Project NRB: Steam Line Extension

- Future campus growth is planned for the eastern section of campus. This project is part of the long range utility plan that provides process and heating steam to the eastern section of the campus.

- The Neuro Sciences Research Building requires high pressure steam and heating steam for the building. The purpose of this project is to provide redundant high pressure process and heating steam to the Building.

- Scope of Work – The Steam Line Extension Project installs a steam line and condensate return line from the Euclid Power Plant at Euclid Ave and Scott Ave. east to Newstead Ave, then north to the Neuro Sciences Research Building.
  - Wet Labs and animal facilities require high pressure steam for autoclaves, cage wash and other processes.

- An economic analysis was completed comparing central plant vs. local/satellite plant process steam production. The analysis concluded that central plant production is the most economical approach to supporting process steam needs on the WUSM campus.
Enabling Project – Steam Line Extension

Construction Update

Steam Line: Boiler Replacement and Steam Line Installation:

• Design and Construction on schedule. The expected completion date is April 1, 2021, and the project remain on schedule and budget. Below is a visual of the Steam Line project route.

• Phase 1 of the below grade steam line installation (NRB to East Imaging) has been awarded to Corrigan and construction started on July 27th, 2020.
Neuroscience Research Building Summary Update

- Project on schedule and on budget
  - Design Development Progress Review concluded on June 5, 2020
  - Construction Document Development ongoing – through October 2020
  - Early construction packages for site work, underground utilities, foundations, and superstructure issued
  - Onsite excavation nearing completion
  - By 2021, complete foundations and utilities installation
  - Mid-2023, complete construction