Michigan STATE CAPITOL

Capitol Infrastructure Upgrade Report

Spring 2019 Vol. 3 Issue 1

CIU Project Expanded to Include Heritage Hall

The Michigan State Capitol Commission voted at their February meeting to expand the current Capitol Infrastructure Upgrade (CIU) project to include the construction of Heritage Hall, a 54,000 square foot underground addition to the Capitol building.

In the 1980s preservation architect Richard Frank wrote the Capitol's first comprehensive Preservation Master Plan. This document called for the restoration of Michigan's Capitol, at that time an overcrowded maze of offices and meeting rooms. Frank also recommended the construction of an underground addition that would relieve some of the stress placed on the Capitol building and Capitol Square.

When Michigan's current Capitol opened in 1879, no one anticipated how government, citizen engagement, and the state's population would grow. Today the Capitol welcomes 250,000 annual visitors who attend legislative sessions, take tours, and participate

Inside this issue:

Visitors will enter Heritage Hall near the northwest corner of Capitol Square, off Ottawa Street.

Image Courtesy of the MSCC

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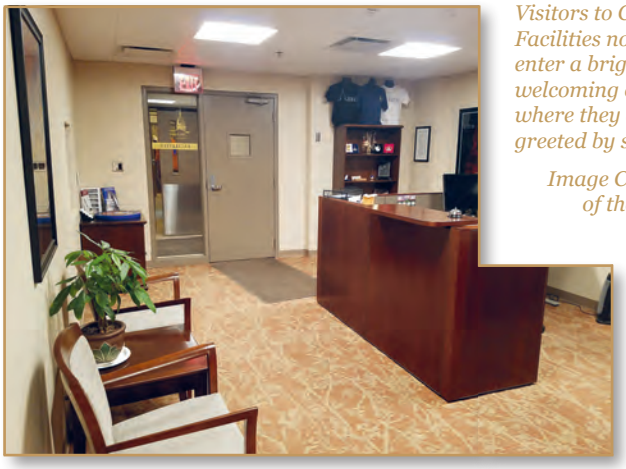
Capitol Facilities Moved Into Transformed Offices

In January 2019 the Capitol Facilities team, including the Director and Assistant Directors, the Business Office, the Capitol Historian, Capitol Trades, and Central Control moved into their redesigned and expanded offices in the eastern half of the underground north annex.



Visitors to Capitol Facilities now enter a bright, welcoming office where they are greeted by staff.

Image Courtesy of the MSCC

Prior to this work, the Facilities area was poorly organized and overcrowded. Visitors looking for assistance had to either walk through Central Control (the nerve center of the Capitol's building systems) or around a pool of office equipment before finding the "front" desk, located in the middle of the room.

Together architects and Capitol Facilities reimagined the layout of the area and carefully reapportioned space. Now, visitors step into a bright, well-lit room staffed throughout the working day. Central Control has its own self-contained space designed to accommodate its equipment. And for the first time, every Facilities staff person has his or her own office or work station.

An overhaul on this level required many months of work. Once the twenty-seven foot eastward expansion was completed, new interior walls were laid out and framed in. Next plumbers and electricians installed new mechanical and heating and cooling equipment. After the systems were in place, finish work began. A tasteful ceiling grid system was installed, carpet and floor tiles laid, the walls painted, and furniture placed. The end result is an attractive, functional, well-designed office where the Facilities team can work together to better serve the public and Capitol office holders.

Electrical Duct Bank Provides Link from CUP to Annex

After months of careful planning and strategizing, a new underground electrical duct bank has been installed along the Capitol's west side. Duct banks are frequently used on construction sites where cables must be buried underground. Our new duct bank links together the new electrical substation room in the central utility plant (CUP) with equipment in the west wing subbasement and north generator vault.

Before the duct bank could be constructed, lines of conduit were run out of the CUP.

Image Courtesy of the MSCC

Choosing the best path for the duct bank wasn't an easy matter. Designers had to keep the bank close to the building to avoid the new geothermal field and any future excavation sites.

Before construction could begin, an earth retention system (or ERS) measuring about forty feet long was installed near the northwest corner of the Capitol. This ERS helped stabilize the soil at the duct bank excavation site, which bottomed out at about twenty feet below grade.

Once the ERS was complete, work on the duct bank progressed in five phases over a month. During each phase the contractors followed the same multi-step installation process. First, excavators dug a trench several feet deep. Next the electrical contractor installed anywhere from twenty to fifty PVC conduits in the trench, which was then filled with concrete and covered with dirt.

In total, the completed duct bank measures about 275 feet long. At its largest point it is 67 inches wide and 37 inches tall.

A view of the completed duct bank where it meets the CUP.

Image Courtesy of the MSCC

Though the process of fabricating the duct bank is complete, work continues. In the coming months, electricians will run electrical cables through the many conduits. These cables will distribute power from the new electrical substation room in the CUP to the west wing and the north generator vault.

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Heritage Hall ...

in everything from farmers markets to concerts, commemorations, advocacy days, and demonstrations. These activities place significant stress on the 140-year-old building's fragile historic fabric and decorative art.

Heritage Hall will reduce much of the pressure placed on the Capitol and will provide space for large meetings and events. At the very center of the design will be a 600 seat auditorium large enough to host major functions.

Heritage Hall will also provide an expanded and safer educational environment for the 115,000 Michigan school children who visit the Capitol each year. Tour groups will enjoy expanded orientation spaces and new educational exhibits highlighting the history of Michigan's National Historic Landmark Capitol.

By incorporating the construction of Heritage Hall into the current Capitol Infrastructure Upgrade project (a major effort to upgrade the Capitol's outdated and failing mechanical, electrical, plumbing, and fire suppression systems), over $1.5 million will be saved.

The design for Heritage Hall incorporates several large skylights through which visitors will be able to enjoy views of the Capitol building and dome.

Image Courtesy of the MSCC

Heritage Hall will contain a large auditorium designed to accommodate up to 600 people.

Image Courtesy of the MSCC

Live Stream

Watch the CIU project unfold on a live stream of the west side of Capitol Square at www.capitol.michigan.gov/restorationlivefeed.

Tour CIU Online

Tour the CIU construction site and learn about the latest progress being made at www.capitol.michigan.gov/restoration.

Want to learn more about Capitol tours, events, or history?

Visit www.capitol.michigan.gov.

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Fourth Floor Closed for CIU Work

The fourth floor of the Capitol will remain closed to staff and visitors throughout the spring and part of the summer of 2019 for a variety of CIU related projects, including replacing electric radiators, installing new windows, relamping lighting fixtures with LED bulbs, and replacing attic air handling units.

The fourth floor has always been different from the rest of the Capitol. Never intended to be as grand as the first, second, and third levels, it has housed a diverse number of entities and offices over the years including the State Pioneer Museum, the State Library, the Secretary of State's Motor Vehicle Division, and, most recently, House and Senate committee rooms.

The last major intervention on the fourth floor took place in the mid 1980s, when the Senate and the House decided to refurbish their respective spaces. While these projects would eventually inspire the full restoration of the Capitol, they did not meet the high preservation standards used elsewhere in the building. As a result, this is the first time that true restoration level work will be carried out in this space.

One major restoration project will be the replacement of the fourth floor windows. New, weathertight, historically accurate custom windows crafted of mahogany and glazed glass will be installed throughout the floor. These windows – and their new white marble sills – have a projected lifespan of one hundred years. Equally important, they will match the windows throughout the rest of the Capitol.

During this phase of work, tradespeople will carefully disassemble and remove the thirty-plus-year-old air handling unit and its associated ductwork from the cramped fourth floor attic above the west wing. Once installed, a new air handler will provide more efficient heating and cooling for this area. New electric finned tube radiators, tucked into brick cavities behind grilles under the new windows, will provide supplemental heat.

On the east side, the existing rooftop mechanical unit will be removed and replaced with slim, new HVAC units carefully installed above slightly lowered ceilings in rooms 404 and 405. These units will provide both heating and cooling for the east wing.