Safety

Safety continues to be at the forefront of the project. As the project expands vertically, crews are reminded about the importance of using tool tethers to lower the risk of items being dropped from the upper levels.

Space is at a premium on the site and continuous evaluation of walkways and egresses to ensure safe movement by workers and equipment is important in avoiding accidents.

With the official start of summer and warmer temperatures and higher humidity, it's important to be aware of the signs and symptoms of heat related illness. Headache, nausea, dizziness, weakness, thirst, and nervousness all can be signs of heat exhaustion.
Everyone is encouraged to drink plenty of water.
Workers are encouraged to report any symptoms and seek assistance immediately for any potential heat related illness.

A project wide safety lunch is being planned for **Wednesday, July 20th**. The Laborers Local 563 has offered to bring in their semi-truck with grills and provide hamburgers, hotdogs, brats and all the fixing's. More information will be available as the date approaches.

190 days w/o a lost time injury

Safety committee meets monthly to evaluate project and provide suggestions to increase awareness and safety

Stay up to date on the progress of the new HCMC Clinic and Specialty Center via the webcam.

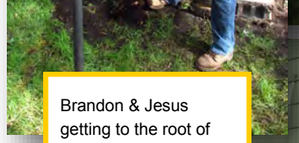
http://www.earthcam.net/projects/mortenson/hcmc/

Meet the "Supt"...

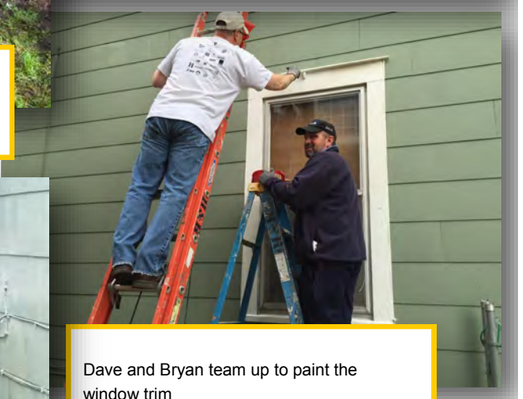
Rich Bistodeau,
Senior Superintendent II

- 43 years in commercial construction (1973)
- Started at age 17 as a carpenter with local union
- Joined Mortenson as a 2nd year carpenter apprentice
  - ◊ Promoted to foreman age 25
  - ◊ Promoted to superintendent age 27
- Primarily healthcare projects since 1977
- First time he worked with an engineer on site – 1999
- Number of projects = 72
- Biggest **change** in commercial construction – technology
  - ◊ Computerized plans/drawings and 3-D technology
- Biggest **challenge** – logistics
  - ◊ Big projects in small spaces
- Three things most people don't know about Rich –
  - ◊ Woodcarver (shows & sells)
  - ◊ Musician (mandolin & fiddle)
  - ◊ Expert turkey hunter

Mortenson team members participated in Hearts & Hammers on June 4th painting & landscaping



Brandon & Jesus getting to the root of the problem



Dave and Bryan team up to paint the window trim

Trina makes sure to paint every inch

Contact Us

Newsletter Coordination

Pamela Radcliffe 612-260-2094

pamela.radcliffe@mortenson.com

Mortenson construction

Hennepin County Medical Center

HCMC CLINIC AND SPECIALITY CENTER

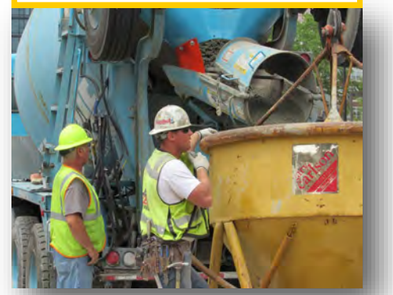
Hennepin County Medical Center—Clinic and Specialty Center July 2016

Project Overview

Managing the schedule is a substantial element of any project. The HCMC Clinic and Specialty Center is especially complex given the very specific details necessary for spaces designed to accommodate medical devices like the linear accelerator, MRI, and CT scanners.

Special attention to these details is important to ensure that proper design and materials are used. Coordination of the various trades who need to do the work and place components is managed in a very deliberate process.

One of many loads of concrete being hoisted to upper levels for columns, floors and walls.

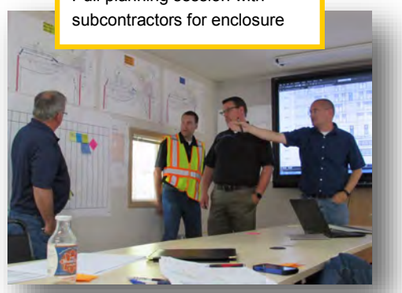


Key considerations of schedule development—

- Fabrication and installation durations of all materials
- Installation sequence of building components
- Interaction among crews, materials and equipment
- Requirement for an interference-free path for components and their installation
- Codes and regulations that ensure the safety of construction operations and the ability to supervise and inspect installed components

The ability to take the total project and break it down in to smaller parts or deliverables, identifying milestones and the critical path are all necessary to develop a realistic schedule that achieves the desired outcome. The master schedule is a "living document" that is updated as work progresses and changes. The "4-week look ahead " schedule assists team members to plan and manage the more immediate tasks that need to be accomplished. Coordination and communication among all team members is essential to managing the schedule and delivering the final product on time.

Pull planning session with subcontractors for enclosure



Lean Innovation

Last Planner System

The HCMC Project team will be implementing the Last Planner System (LPS) on the project. First steps will be to participate in training that will assist the team in coordinating the 5 elements of the system to increase efficiency, communication, participation and gain "buy in" by all team members including trade partners. The process starts from the desired end result and works backward. A "pull" process rather than push allows for more reliable commitments from those involved.

5 Elements of LPS

- **Master Scheduling** (setting milestones and strategy; identification of long lead items);
- **Phase "Pull" planning** (specify handoffs; identify operational conflicts);
- **Make Work Ready Planning** (look ahead planning to ensure that work is made ready for installation; re-planning as necessary);
- **Weekly Work Planning** (commitments to perform work in a certain manner and a certain sequence);
- **Learning** (measuring percent of plan complete (PPC), deep dive into reasons for deviations and set backs, developing and implementing lessons learned).

In This Issue

- Lean Innovation
- Quality & VDC
- Women in the Trades
- Project Team Community Involvement
- Safety

MEP Update

Mechanical and electrical activities have been ramping up on site. Sleeves are set in each pour to facilitate piping, ductwork, and conduit installation later. Parsons also installs some conduit within the structural slab itself, relieving some of the above ceiling congestion.

The next milestones will be starting rough in at the beginning of August in Lower Level 2 and permanent building power this fall.

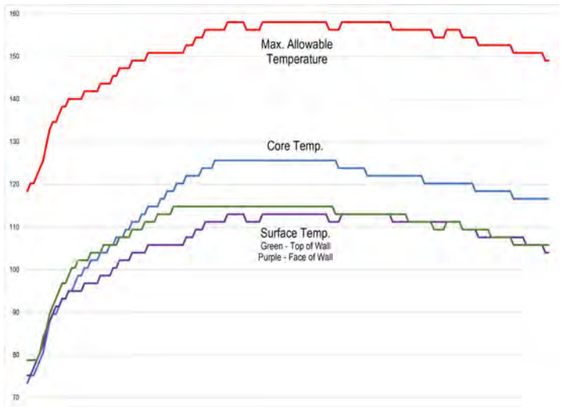
Parsons Electric team placing conduit before concrete pour

3D Coordination is about 40% complete for the project, currently focusing on Levels 3-5. Medical equipment is also being included in the 3D coordination as much as possible because of its complexity.

Quality Update

The lower level of the building will house a linear accelerator, or LINAC, that will be used for administering radiation therapy for advanced cancer treatment. The walls and ceiling that surround the LINAC were specifically designed to prevent the radiation from escaping the LINAC room, and are much thicker than typical concrete *(between 2'-6" and 8' thick – typical concrete on this building is 1'-4" thick)*.

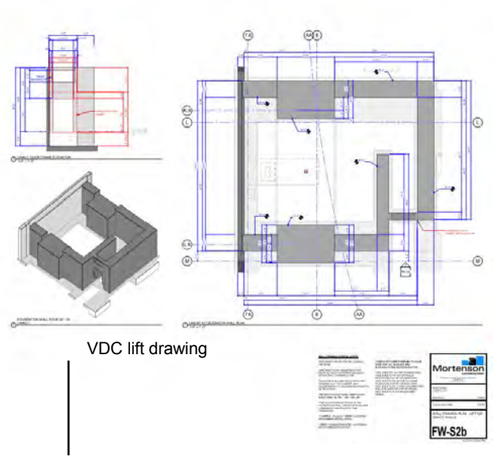
Concrete hardens when the ingredients in the mix chemically react with each other, and this process generates heat. When concrete is this thick, it is possible for the internal temperature to far exceed the temperature of the outer face, which can result in a reduction in strength, cracking, or other defects. To prevent this from happening, the temperatures of the LINAC walls and ceilings are being monitored and recorded around the clock by a network of electronic sensors – *24 in the walls alone* – embedded in the concrete. This allows the Mortenson team to react appropriately if the temperatures exceed the acceptable range specified by the design team. So far, only the LINAC walls have been poured, and as you can see from the graph the temperature differential has not approached the maximum. The sensors will stay permanently embedded in the concrete, and will be monitored for 28 days after the pour.



Temperature monitoring of concrete in LINAC walls

VDC Update

Mortenson has been the innovation leader of a number of technologies relating to coordination, planning, and lean construction in its almost twenty-year history with Virtual Design and Construction (VDC). Because Mortenson is committed to self-performing concrete it's a natural fit for the VDC team to be involved in coordinating and planning the concrete.

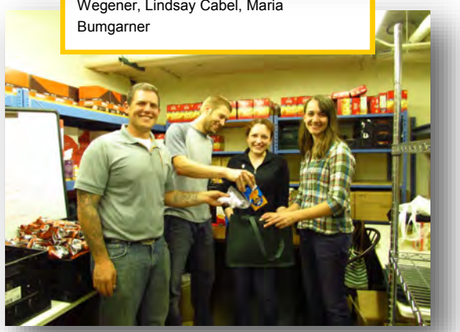


VDC lift drawing

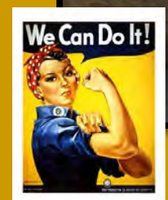
The VDC team takes the models produced by the design team, adds in information from the coordination models to get locations where pipes, conduits and ducts need to go through the walls and floors, and divides the model up into pour sequences according the structural requirements and the size of the formwork. Then, "field use" drawings are produced to provide a one-stop resource for field crews to use in forming the concrete. This allows the concrete crews to be faster and more productive on site because all of the coordination and planning has already been done.

Team members volunteered on June 8th at the HCMC Food Shelf program. And assembled 280 bags of food in just under 2 hours .

The "Baggers" - Brandon Meyers, Carl Wegener, Lindsay Cabel, Maria Bumgarner

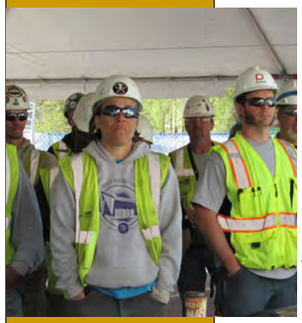


L-R: Erin Williams, Carpenter, Lindsay Cabel, Engineer, Gerilyn Otto, Carpenter, MJ Fackler, Ironworker, Vikki Mackins, Carpenter, Mollie Pearl, Ironworker, Erin Swetland, Plumber, Lisa McCoy, Laborer, Kristy Semlak, Laborer, Allyson Childress, Electrician, Maria Bumgarner, Engineer



Women in the Trades ….

Nationally, women account for only 2.7% (185,000) of all construction jobs in the US according to 2015 US Department of Labor-Bureau of Labor Statistics. That is down from the high of 300,000 in 2006 before the recession. However, with increased recruitment efforts and more opportunities and access to apprenticeship programs, these numbers are on the rise.



Currently women make up nearly **9%** of the workforce on the HCMC project. As of June they have worked over 4500 hours. The women on the project work in a variety of trades including, carpenters, laborers, electricians, plumbers, ironworkers, engineers, and project managers. As the project progresses and more subcontractors come onboard, there will be more trades women actively engaged in a wide variety of roles on the job site.

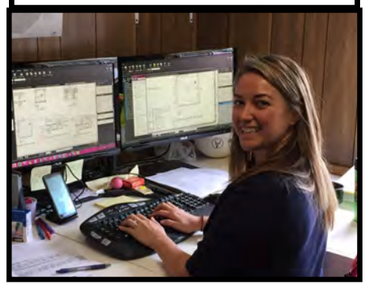
Education and training requirements range widely from a high school diploma for entry level positions and apprenticeships to bachelors degrees for engineering and project management positions.

There are great opportunities in the construction industry for women who are looking for a career that offers good pay and benefits and provides exciting challenges and opportunities to grow in your field.

Erin Bengston-Noyes, Engineer, Parsons Electric

Kristina Reiter, Exterior Building Services

Melissa Helgeson, Project Manager, Harris



In memory of our coworker and friend, Erin Colleen Williams who passed away unexpectedly Saturday, July 2, 2016.