

Knight Cancer Research Building

Lean Construction / Lean Safety Best Known Methods

Lean Champions:

Wayne Bergquist, JH Kelly

BKM: Prefabricated piping

How does it work?

Prefabricate, rack, insulate and label pipe in the fab shop

How does this benefit the project?

Less field time joining pipe (sparks, fire, heat and or pressing)

Less elevated work

Allows our field craftsmen more time to focus on project logistics and coordination with other craft

The work done in a controlled fab shop is generally a better product and performed more safely

Reduces the amount of people working on an already crowded jobsite

Why is this a Lean Method?

Much less waste

Materials do not get misplaced

Unused materials are easily returned to vendors or reused on upcoming workpackages if become short on materials

More work is performed in a much more ergonomic environment – chest level

More laydown and storage area so we can bulk buy materials

Much cleaner environment means cleaner product

Weather is much less a factor – usually non-existent.

Please attach or include photos of the before & after



The pre-insulated pipe with labels starts rolling in on carts attached to the strut trapeze racks. In the background you can see a JH Kelly craft on man lift connecting the racked pipe as it comes into the building. There are many more racks outside the building waiting to be wheeled into position. There are also more fabshop trucks bringing more racks and taking away the wheeled carts to be loaded up again. The piping in the DCM are was never stored on site it was delivered just in time and immediately rolled in and installed.



Above picture of a typical prefabricated rack installed and tested. Also pictured at bottom is a rack of water pipe (industrial cold, hot and recirc) ready to be lifted into position.



Two tiered copper pipe racks being assembled in Vancouver copper shop. Insulators will follow, then the racks are loaded onto shipping racks for staging and transport to jobsite.



Finished racks ready for transport to jobsite