



## SPECIAL PHOTO SUPPLEMENT JUNE - 2012

### RESTROOM PROJECT AT THE GEORGE ISAACS CARBARN

(Article by Dennis Stephens)

Those who frequent the George K. Isaacs carbarn have for years (like 40 years!) wished for a real restroom (a/k/a/toilet) and running water in the carbarn. The composting toilet we had for a few years just didn't cut it. Planning the installation of a genuine restroom progressed in fits and starts since January, 2009. We came to realize that the restroom project would move more quickly if it were divorced from our more complex carbarn expansion plans. That means the restroom must be located within the heated building, where space is at a premium. An ad hoc committee consisting of **Aaron Isaacs**, **John Prestholdt**, **Bill Arends** and **Dennis Stephens** agreed that the best location for an ADA-compliant bathroom was along the east wall of the shop where the air compressor and electrical panel were located.

Recent repairs and improvements to our 600v DC overhead system increased awareness of other electrical service deficiencies in the shop. Four machine tools shared a single 3-phase circuit and an obscure box in the ready barn still fed several circuits on plug fuses. By tackling the electrical work first, we could clear the space for a restroom, bring our wiring into code and simplify the path forward.

**Stuart Stephens**, an electrical engineer and P.E. with Barr Engineering, surveyed the maintenance and ready barns. He explained the changes needed and costs involved before drafting a statement of work. Three contractors submitted quotes but one withdrew. The MSM Board accepted the \$6,900 bid by Advantage Electric.

A Barr Engineering client donated a nearly-new 42-slot, 120v/208v 3-phase Siemens panelboard which saved MSM more than \$2,000 and replaced an outdated 20-slot panelboard. We are indebted to Stuart for his many hours of pro bono work. The work was well-defined and completed promptly. **Karl Jones** worked with the contractor to insure that the security and sprinkler systems would not be interrupted.

The pictures below show the future restroom corner before and after relocation of the electrical panel and compressor. Karl and a group of Tuesday volunteers relocated storage lockers and work benches, presenting Shop Foreman, **John Prestholdt** with a fait accompli. The stationary air compressor has moved north about 30 feet. **Jim Willmore** and **Dennis Stephens** shortened the air distribution line and cut in a new inlet. New volunteer **Pete Connors** took charge of reconnecting the 208v 3-phase A/C power. Relocation of storage cabinets resulted in some power receptacles getting covered, so Pete is placing additional quad receptacle boxes in accessible areas.



**Before and After Photos.**  
As you can see, the corner is now cleaned out and ready for the next phase of our George Isaacs carbarn improvements project. Next step: the sewer line needs to be installed. Then the plumbing for the toilet and sinks can be finished. Our shop volunteers will most likely frame-in the bathroom itself.  
The large black pipe above where the bathroom will go is part of the sprinkler system. The new electrical panel mentioned in the article can be seen on the lower right of the photo.  
(Dennis Stephens photos)



What's next? Angie's List has been a wonderful tool for finding reputable local plumbing contractors, two of which advised us that their work only begins after sewer service is in the building. The good news is that three firms have been recommended that specialize in sewer work in Minneapolis. We have a few good months to solicit bids and get that done. Stay tuned...

### WINONA NO. 10 RESTORATION PROGRESS

Steady progress has been made over the last few weeks in putting Winona No. 10 back together again. The Tuesday Excelsior guys have been working on the "B" end of No. 10 and it takes expertise and much effort to make everything fit back together. Quoting Ken Albrecht, Project Leader: *"We shoe-horned [the platform roof] into place after a number of different attempts. As we moved the roof into the [roof board] overlap of the main car body the front tenons fell in to their mortises quite nicely (for which we can thank our talented craftsman/volunteers)."*

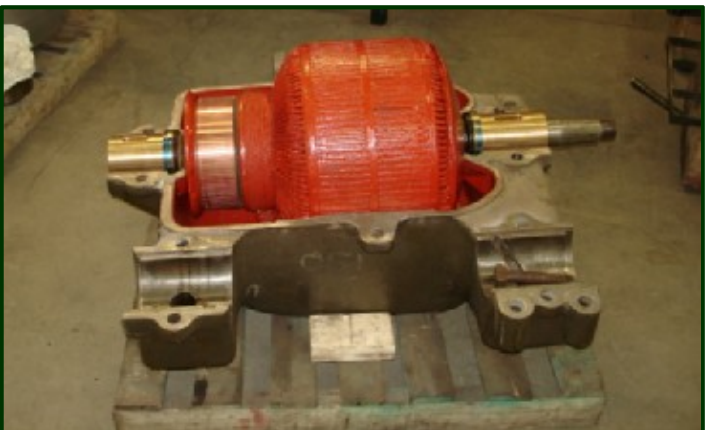
We've also made progress on rebuilding the truck. The two General Electric model 800 25-horsepower motors are finished and are now at the shop in Pennsylvania that is working on the truck. We hope to have the truck finished and back in Excelsior in another three to four months.



The platform roof (sometimes called a platform bonnet) has been lifted up by the men and sits on the platform corner and window posts. That's **Bill Preiss** with his back to us and **Ken Albrecht** on the right. The fellow standing on the platform is **Tom McGruder**. (Jim Vaitkunas photo)



The roof has now been pushed to the main passenger compartment roof. It's a very tight fit and after being "greased" with Vaseline, **Ken Albrecht** is "persuading" the platform roof to fit under the main roof. **Tom McGruder** is on the right helping to steady things. (Jim Vaitkunas photo)



Since we rarely can see the motors that power our streetcars because they're mounted on the power truck and well hidden under the car, I thought you'd be interested in these photos of the GE-800 motors that will eventually power Winona No. 10. The photo on the left shows the motors complete with the electrical leads. The GE-800 motor is a "split-frame" type motor, and as you can see in the photo on the right, the top half of the motor case has been removed to show the refurbished armature. On the armature shaft the small pinion (gear) will mesh with a larger "bull" gear fixed to the axle. The round openings shown in the photo on the left fit around the axle so that the pinion and bull gear can mesh properly while allowing the axle to move up and down to conform to the bumps and dips in the track. Each motor weighs 1,700 pounds. It cost \$13,000 to rebuild the two motors—your generous donations made it happen. Many thanks! (Photos courtesy of A.C. Electric Company, Bangor, Maine)



## CENTRAL CORRIDOR LIGHT RAIL LINE UPDATE

**J**ohn DeWitt took some photos of the construction progress of the Central Corridor light rail line in Minneapolis, near the University of Minnesota's main campus. The Central Corridor line, except for a few spots, is being built on the former Twin City Rapid Transit Company's University Avenue "Interurban" Line. Our No. 1300 was built in 1908 specifically to operate on that line and our PCC No. 322 was a regular service car on the interurban line as well (see photo below). So, our Museum has a definite connection between "then and now."



The line is turning off University Avenue onto 29th Avenue in Minneapolis. The line will shortly turn west and parallel University for a few blocks before crossing University to go down Washington Avenue, bisecting the UofM's main campus. The wooden blocks are being used to roughly position the pre-bent rails. The track in this area will be embedded in a large concrete slab so they've a ways to go.



This photo looks east from the pedestrian bridge in front of the University of Minnesota's Coffman Union. John comments: In a couple of years, I'll try to get an image of a light rail train from the same perspective that we have of No. 322 in front of Coffman (see photo below).



This photo looks west from Cedar Ave. You can see the right-of-way leading up to the Interstate 35W flyover bridge. Just to the right of that you can see the curbs going in for the new exit from northbound I-35W to Washington Ave. Rail is in on the bridge.



The photo on the right looks west from the 19th Avenue bridge towards the Cedar Avenue bridge showing the West Bank station. Downtown Minneapolis and the soon to be demolished *Hubert H. Humphrey* dome can be seen in the upper right of the photo.

*All photos on this page were taken by John DeWitt except for the one of PCC No. 322 which is from the MSM photo archives. Photo captions were extracted from John's e-mail that sent the photos.*

