

Port of Seattle, Terminal 102 – Harbor Marine, HVAC Replacement Project

Marty Loft, Account Manager

MacDonald-Miller's association with the Port of Seattle was renewed when Dennis Smith won a multiyear service contract for all Sea-Port facilities, including Piers 66 and 69 on Alaskan Way.

As a result of Dennis' work, we were invited to bid the Terminal 102 HVAC project, replacing 48 rooftop units. Key to being the successful bidder was our experience doing similar unit replacement projects. As a result, Larry Harbison provided a real world estimate of what would be needed to do the work.

The project ended up even better than estimated because of some remarkable organization, team work and leadership exhibited by the Service Special Projects Department. More about that in a minute.

The T-102 project involved collaboration between the Port's Capital Projects Division and the Maintenance Group. This had not been attempted before and was seen as something of a test case for the Port's procurement procedures. At the end of the day, both groups viewed the process as very successful.

We partnered with Air Cold Supply, who provided the York rooftop units; Total Reclaim, for unit disposal and Magnum Crane to lift the equipment. These sub-contractors worked extremely well with our crew to make the transition time from old unit shutdown to new unit startup much shorter than the Port had anticipated.

The project and property managers for the Port were concerned over the length of time that an individual tenant's unit would be down during the replacement process. The contract required MMFS to provide temporary cooling if the shutdown lasted more than two days. This was critical, since the work was scheduled in July of the warmest summer we've had in some time.

Larry and Steve Harbison set a very aggressive schedule for removing and setting 10 units in one day. In fact, their crew was able to accomplish it in less than four hours! They had 5-6 of the units running by the end of the day, and the rest of them running by 10:00 AM the following day. Overall, the replacement work was completed in two weeks!

The process, no - the choreography, was remarkable to watch. The crane was in position by 5:30 AM; Air Cold's trucks arrived with curb adapters and new units arranged in the order required by the roof installation layout; Total Reclaim setup their flatbed on the opposite side to receive old equipment.

At conclusion of the morning safety meeting, "the show" began. Each person knew exactly what they needed to do and when it had to be done. While one crew rigged the new units and curb adapters, another crew had already disconnected the electrical, gas piping and unit hold-downs. It was flying the old unit off and hoisting the new one onto its curb, again and again. The mantra: never have an empty crane hook coming up or going down. No wasted motion.



Material delivery



Material lifted to roof



Removed units on trucks



Rooftop unit set in place



Crane set up



Uploading curb flashing



Placing curb hood



Unit being wired

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Once a new unit was in place, the power wiring, thermostat wiring and gas piping began, followed by startup of the refrigeration system and gas heat. The final step: measure total airflow to verify performance of the unit. It was teamwork at its best.

The Port provided a full-time project engineer to oversee the work. His comment, after the first two crane picks was, "This is a really boring project, there's nothing going wrong that I can write up".

Soon word began to spread among the Port people about the speed and efficiency of the MacDonald-Miller crew. Several of them scheduled a site visit just to watch the show themselves. They were impressed, to say the least. The Port's resident engineer said "I've been in this business for 50 years and I've never seen anything like this." The Port was so pleased with our efforts that they threw a barbecue lunch for everyone.

We received many thanks from the building's property manager and tenants for the minimal impact on their operations. To show our appreciation for their patience, we provided an espresso cart and barista for a day.

I know all parts of our company work hard every day to reduce costs and improve delivery of their final product. The Service Special Projects group, managed by Mike Morceau, is a great example of getting it all right.

I would like to thank each member of our team for showing an important customer that we do indeed offer a level of performance, pricing and service that our competitors are unable to match.

MacDonald-Miller Facility Solutions

Sheet Metal
 Larry Harbison
 Steve Harbison
 Dan Craig
 Tim Hillegas
 Mike Franson
 Michael Klein
 Richard Flynn

Electrical
 Mike McGivern
 Mark Klug
 Bryan Thao Vo

Gas Piping
 Lou Gitchell

Test and Balance
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Office Support
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 Jerry Cannon
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Port of Seattle

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Safety Officer
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Office Support
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Vendors/Subcontractors

Air Cold
 Sam Humphries
 Mike Jacovino
 Ken Porter
 Mike Potter

Magnum Crane
 Mike Haukenberry

Total Reclaim
 Dave Baugh