

## HIGHLIGHTS

- P3** A huge effort for efficiency
- P4** Big team on campus, getting great grades
- P7** Guarding a precious metal

# PERSPECTIVE

VOLUME 6 | QTR 2 | 2018

## AN ON-DEMAND SOLUTION FOR DUCT FABRICATION

### Announcing MacDuct...

✂ Q&A WITH BRADD BUSICK & RYLAN MACCAY

**You can now order sheet metal online!**

**Q: What is MacDuct?**

**A:** MacDuct is an online ordering system, available on our website, that allows MacDonald-Miller to fulfill duct fabrication orders from customers via any mobile device. It provides an "Amazon.com" experience, including order tracking, history and pickup/delivery for duct, fittings and specialty orders. This offering provides new fabrication customers with an on-demand solution to customize their specific product needs, when and how they want it.

We already efficiently fabricate and assemble all types of custom commercial and marine ductwork and fittings at our 100,000 SF state-of-the-art prefabrication shop. Offering an easy online ordering system that includes delivery services, and short-lead times seemed

like the next step for us. We can turn orders around within 24 hours, if needed, so helping clients with emergency items isn't a problem.

**Q: What kind of items can be ordered?**

**A:** We have a lot of quality items available. Online you will be able to find Sheet Metal ductwork like:

- Rectangular HVAC Duct & Fittings
- Spiral HVAC Duct & Fittings
- Grease Duct
- Stainless Steel Ductwork
- Specialty Exhaust Systems

**Some of our accessories include:**

Duct Sealant, Sealant Brushes, Screws, Nail-in Anchors, Hanger Straps, Paint, Hardware Inserts, Unitstrut and Duct Protection Wrap


**Q: Who is this service available to?**

**A:** This service is available to any mechanical contractor that is approved

to order through our simple online system.

Visit [www.macmiller.com/macduct](http://www.macmiller.com/macduct) to learn more.

**Q: Why is this needed?**

**A:** This new capability provides our customer base with an on-demand, easy to use system from any computer or mobile device, without having to call someone, or compile an order via email. It's that easy! 



## SHOUT OUT!

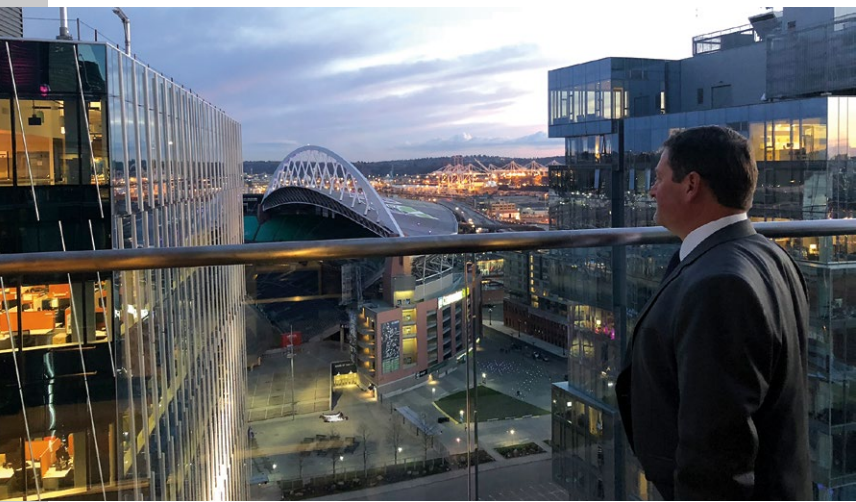
➡ TO THE SEATAC MARRIOTT  
DCW & DHW PROJECT TEAM

"The crew working the job was outstanding! Kevin Ruch was on the spot. Matt Thompson, Ron Jacobs, Mike Nelson, and Jeremy Chandler were great. They recouped from any challenges and were able to get the water back on before 3:00. Ron took over the project from someone else due to an onsite injury and despite the project being dropped in his lap, he had no problem with picking up where we had left off. I am extremely impressed by MacDonald-Miller. I work with a lot of different contractors in different states and I can confidently say that MacMiller is the most professional and the best I have ever seen."

*Gerry Tarantino, SeaTac Airport Marriott*



Gus Simonds  
President



2018 – In like a Lamb out like a Lion

In 2018, workload will increase month-over-month, beginning in April and continuing through 2019. This is an unprecedented flow of business that we have been planning and anxiously awaiting for over a year. We are ready – bring it on! Although most of the job site physical work will be picking up later this summer/fall, our engineers are already busy, putting in long hours to meet approaching deadlines... hats off to the best Mechanical Engineers in the West!

In June, our Virtual Reality 3D Interactive Building Information Model Interaction Room (say it three times fast :- ) – or more commonly known as a “BIM CAVE” – will be complete in our main office. I am excited to show our clients how this interactive technology can foster progress in the building design process. It can be a place where architects, owners, GC’s and subcontractors can all interact with design questions through this VR technology. This is more efficient than creating “mock-up” rooms or repeated “redesigns” to solve fit and finish questions. And, it’s only available here at MacDonald-Miller!

In August we are relocating our Eastside office near the Microsoft Campus in Redmond. We have simply outgrown our old location and I hear there’s a “little” Microsoft work being planned for 2019. Our Service, Special Projects, BPG and New Construction teams will all be sharing this new space in the coming years.

We will begin the Moxy Hotel construction project in Portland – this will be the first major construction project in Portland since before the 2008-2013 recession. We expect to have several major projects like this in the Portland area over the next few years.

In downtown Seattle, you will notice a large construction site underway next to Rainier Plaza. This 60-story project, Rainier Tower, will be the second tallest building in Seattle. It’s a premier project for us and an iconic building we can all be proud to be associated with for years to come.

Although our MacMiller business is very healthy and continues to grow, I always remain vigilant for any changes in the weather. In the meantime: *Be the Choice, Execute with Distinction* and *Be Humble*, we have a big job ahead of us.

Gus Simonds

An act of preservation

✂ BY SHANNON FORCE & JOHN SCHMIDT

Everett Museum of History

The Everett Museum of History is finally making plans to move into its own building – a 10,000 SF space perfect for exhibits. The building, once home to the Everett Daily Herald until a fire in 1956, has since been utilized as a data center. However, the existing HVAC equipment does not possess the proper humidity control required for the artifacts stored and displayed in the museum.


The directors of the museum worked with MacDonald-Miller to perform a feasibility survey for the HVAC distribution systems, which included existing roof-mounted package air handling units. The renovation plan requires performing replacement of the five existing package air handling units that exceeded life cycle, installation of one new package air handling unit, distribution modifications and installations at the main floor and lower floor levels, and supporting controls with the potential to also perform lighting and electrical modifications as determined.

And while renovations are underway during the next year, MacMiller will perform maintenance, which has already benefitted the museum!

When the Vice-President of the Board, Jim Cuthill, said his thermostat appeared broken, we were on the job to check the system. We discovered that the gas was not turned on from the main valve outside of the building. We turned on the main valve and gas poured out of the valve prompting immediate shut off and a need to remedy the potential gas leak right away. MacMiller technicians were on the site within 24 hours to locate the gas leak.

Having identified a leak in the natural gas piping at the roof level, we investigated the overall integrity of the system and recommended replacement of the riser and penetration at the roof level to include the flashing itself. We found that the leak was caused by deterioration of the piping due to an improper roof flashing application.

“Everyone at MacDonald-Miller has been wonderful to work with! They are prompt, professional, and the work they provide is excellent!” said Jim.

The HVAC systems are critical for the preservation of the historical artifacts, so it’s our job to get everything running perfectly to ensure the preservation of Everett’s history. 



A huge effort for efficiency | U.S. General Services Administration (GSA)

✂ BY MARK REYNOLDS

Completed in early spring of 2018, this new state-of-the-art building features five stories of Class A office space. The facility will provide a cohesive workspace for approximately 1,600 people.

As the design-build mechanical contractor, MacDonald-Miller partnered with Panattoni, NAIOP Washington’s 2016 Developer of the year, and Abbott Construction for this project. We were responsible for both the HVAC and plumbing system’s design and construction. The building automation DDC controls utilize revolutionary wireless zone temperature controls for rooftop VAV air conditioning units and all terminal units. A standard hardwired building automation system monitors the wireless controls and other mechanical systems.

A specialized air conditioning unit utilized on this project employs a unique and highly efficient pumped refrigerant economizer system, which will serve the new data center.



Give these teachers an apple!


✂ BY NICOLE MARTIN

Congratulations to two of our own! Rory Olson and Mike Kunkel received teaching awards from MCA of Western Washington early this year. Rory Olson, Service Operations Manager, was named 2017 MCAWW Instructor of the Year, and Mike Kunkel, Plumbing Superintendent, was recognized for new program development.

Rory Olson has been involved with the MCA since the beginning of his career. “The educational programs they offered me early in my career were invaluable. I felt it was important to keep that knowledge transfer going to the next group. I am proud to be an instructor for the MCAWW as they set the education bar very high for mechanical contracting associations throughout the country.”



Mike Kunkel notes, “I was recently invited to develop a class with two seasoned instructors at the MCA. Although I have been teaching at the apprenticeship school for 15 years, working with them elevated my skill set of constructing a course to presenting it.”

Rory and Mike, along with other industry teachers, were recognized at the 8th Annual Teacher Awards Breakfast. Thanks goes out to every MacMiller team member who puts in the time and effort to educate industry colleagues, and help raise the bar of knowledge! 



MCAWW instructors



Mike Kunkel, Travis Brock and Maria Boyer



Rory Olson





## Big team on campus, getting great grades ✂ BY JOHN VAN HERSETT

### Highline College Emergency Piping/Boiler Install Project

MacDonald-Miller began performance contracting work for Highline College in 2012 under the ESCO program run by the State of Washington, Department of Enterprise Services. Since then, we have been their energy services provider for many projects. Because of our partnership, extensive knowledge of their campus, and mechanical expertise, we helped our client secure emergency funds to achieve the best solution for a big problem.

While walking on campus between Buildings 23 and 21, surveying a location for a Magnum crane to setup and lift a chiller on Building 23's roof, we noticed steam coming out of a vault access hatch. The hatch was opened, and we discovered it was full of 190-degree water. After pumping the water out and letting the vault cool for 3 days, we realized that 12 years of ground-water had been leaking into the vault with no provisions for draining or permanent pumping. This resulted in the insulation around the 10" heating water supply and return, as well as the 4" branch feeding heating water to Buildings 21 and 22, being corroded to the point of developing leaks.

Further complicating things, the heating water distribution mains were buried 16 ft below the concrete fire lanes running between the buildings on campus with power, natural gas, domestic water, sanitary sewer, storm water, telecom and fiber optics all above the heating water distribution supply and return lines. An engineering investigation was commissioned and our results were presented to Highline. The findings outlined options ranging from excavating down and repairing in-place to decoupling the buildings on the damaged distribution system and installing individual boilers to provide heating water to each building.

We presented the analysis to the college and they quickly chose to decouple from the main plant and its compromised heating water distribution system and install dedicated heating water boilers for the three buildings affected. The leaking distribution system was discovered on September 6th, 2017, Notice to Proceed (NTP) to investigate the system was given on September 17th, and the results of the investigation led to an in-depth engineering study and Investment Grade Audit (IGA) on October 18th. Findings were presented to the executive committee at the college on November 18th, 2017 with NTP for four new boilers arriving the next day. Given that the boiler installation process would result in heating

water being shut off to nearly a third of the instructional space on campus, we scheduled our installation window for the winter break – Monday, December 20th through January 5th, 2018.

Our task was to install four new boilers in two locations. To achieve this, we needed to carve out space in three mechanical rooms for the new systems, construct interior and exterior equipment pads, reroute the heating water systems in the buildings to connect to new heating water condensing boilers, pipe two buildings together, and have it all running by the time classes began again on January 8th.

The key to this undertaking was teamwork. By January 8th, over 94 people at MacMiller touched this project. It took intensive planning with our teams to ensure we had all our bases covered, including coordination with our partner vendors (Johnson Borrow & Mechanical Sales), and working with the equipment providers to secure boiler

✂ CONTINUED ON P6

## THE KEY TO THIS UNDERTAKING WAS TEAMWORK

## FACES OF SUCCESS

It takes people from a wide range of professional skills to make MacDonald-Miller the industry leader that it is today. It's the diverse personalities and backgrounds that seamlessly come together to create smart, successful project teams here at MacMiller. That's why in each issue of Perspective we take the time to highlight members of MacMiller who've made invaluable contributions. It's a way to give you a little more insight into those that proudly represent us, and a way to further illustrate how three different individuals can make one team greatly successful.



FUN

### Dustin Schmidt

PLUMBING & PIPEFITTING JOURNEYMAN

Years with MacMiller:

9 years

We really fit together...

The TI fitting group includes some of the hardest working people I've had the pleasure of hanging pipe with. I always look forward to the weekend shut-downs we do together because while it'll be hard work, we're definitely going to have fun. The special project tenant improvement team is a great group to be in.

Out & About

My wife and I really enjoy taking our kids out **hiking** and camping – simply enjoying the great outdoors. I also enjoy teaching my kids about gun safety and when they are old enough to handle fire arms, teaching them how to shoot.



## FUN FACT

The three MacMiller folks featured above are part of the Highline College team, detailed in the article on the left. ➡



TOUGH

### Mark Klug

ELECTRICAL FOREMAN

Years with MacMiller:

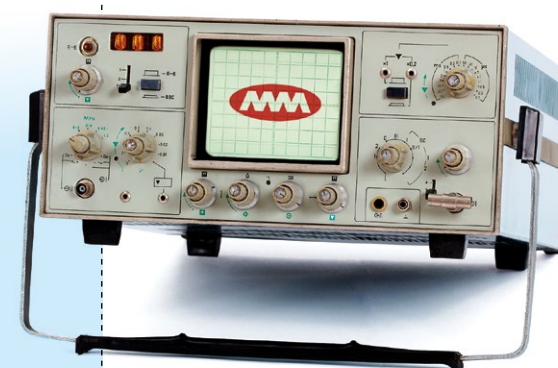
17 years ago I started at Sequoyah/Encompass, then MacDonald-Miller/Encompass, then MacMiller, back to Sequoyah, then MacMiller.

Better, together:

The best thing about MM is the teamwork. The composite crews in the special projects group enable us to do jobs that cover quite a scope. From the concept, to the nuts & bolts, to the turn-over crews that you may not see or meet, we combine to do some of the toughest jobs you could imagine.

OUCH!

What people might not know about me is that I "discovered" electricity in 1968 when I got hung-up and knocked-out on an electric fence. I had a **Ham Radio**, worked at Acadian TV, and at age 16 won a gold medal in the VICA skill Olympics, but found building wiring to be my real destiny.



INVALUABLE

### Kenny Sproul

SENIOR CONTROLS SPECIALIST

Years with MacMiller:

4 years

What a view!

My most memorable day was the first job I worked on at MacMiller, at 1915 Second Avenue. Having just moved from the Midwest I had not yet experienced the Puget Sound on a clear day and as it was November, we had a rare day. From the roof of the 27-story building I saw the view and froze to take it all in for a few minutes. Of course, the group had stopped the tour realizing I hadn't seen this before and took a minute to appreciate the breathtaking view as well. I also want to say that the culture at MacMiller is incredible – they always make you feel like an invaluable part of the team.

Going retro...

I like to restore vintage radio control vehicles by buying **boxes of parts** on eBay, keeping what I need and selling the rest to pay for the addiction.








### Big team on campus, *CONTINUED FROM P4*

manufacturing slots that would meet the installation window. PSE installed two new gas services in less than 30 days! Consistent communication, close coordination and partnership with our customer was instrumental to our success.

Barry Holldorf, Director of Facilities & Operations, Highline College, shared, *"I just wanted to note my pleasure with your entire team! I would like to recognize key players John Van Hersett, Brian Hanson, Michael Coffey, Michael Curtright, Dustin Schmidt, Mark Klug, Scott Gideon, Kenny Sproul and the rest of the team that were out here for this repair. These people make it happen and have bent over backwards to ensure interruptions to instruction were minimized and that we were back in operation when planned. It makes our Facilities team look really good when we have top notch contractors leading the charge!*

*I know that there were a lot more of your people on this and similar jobs around the campus that I have not yet had the chance to meet – so I want to recognize their contributions to getting the project done on time.*

***We are truly grateful, and this once again reinforces my thoughts about having the right partners to make this place work!"*** 

## Making the grade in **ENERGY SAVINGS**

As the college's ESCO contractor we have performed exterior LED lighting retrofits, campus-wide building controls standardization and condensing boilers, chillers and pumping systems, to mention just a few of the many projects. This work has reduced their annual energy spend, helped the college meet their conservation and sustainability goals and modernize the aging campus infrastructure. To date we have helped the college achieve **\$144,000/year in utility savings (over 1,050,000 kWh and 63,000 Therms gas)**. In addition to the utility savings, the college has received over \$2.6 million of utility rebates and grants in addition to the \$460,000 of emergency funds for the boiler project.

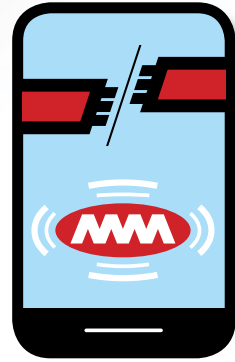


The yearly utility savings above are equal to heating **77 HOMES** with natural gas or **78 HOMES** with electricity.



The CO<sub>2</sub> reduction is equal to the removal of **141 CARS** from the road or planting **230 ACRES OF TREES**.

*Heating the average home with natural gas for a year takes 816 therms. Heating the average home with electricity for a year takes 13,500 kWh. An average car emits 12,000 lbs of CO<sub>2</sub> per year. Planting an acre of trees consumes 7,333 lbs of CO<sub>2</sub> per year.*



## Guarding a precious metal

✳ BY MICHAEL BERGSTROM

### Copper Theft Detection System


In the past, when city municipalities experienced copper theft, all they could do is search for clues. Now armed with a new tool, the City of Federal Way can receive real-time alerts so they can take immediate action. This alert system helps protect against the extensive costs for replacing stolen wire and damaged infrastructure while providing real time visibility to the Parks Department and local law enforcement authorities. MacDonald-Miller partnered with the City to develop this copper theft detection system.

**“Repair costs, down-time, staff time and often loss of games on sports fields are some of the ways copper theft affects us,” says Steve Ikerd, Parks Deputy Director for the City of Federal Way.**

The driving factor for this technology solution was to save time and money. When games or events have to be canceled due to copper theft, communities lose money.

Steve also shared, “Working with MacDonald-Miller was a good experience as we collectively worked to identify needs, potential challenges, and how staff would interface with the product. Everyone had their picture of what the final product would look like, and it was good to see with team effort, and some adjustments, the final outcome was as expected.”

For this system to work, a wire must be cut, and the cost to repair a cut wire is a lot smaller than having to install missing wire. The real test for this will be if its use can significantly reduce the repair cost, and, as a side benefit, create an opportunity to catch the perpetrator in the act.

*MacDonald-Miller is working with cities and utilities who want to save money. The cost of replacing copper is generally 10-15 times more than the copper itself. The copper theft prevention system was designed to save communities money, decrease risk, and enhance community safety.* 



## SHOUT OUTS!

➡ TO PRANIL PRASAD

“Yesterday I had the pleasure of meeting one of your service techs, Pranil Prasad. He was very thorough with the work he performed and was quick to clearly explain the situation to me and our tenant. You are fortunate to have him on your staff.”

*Marty Johnson, Building Engineer – Kemper Development Company, The Bellevue Collection*

➡ TO STEPHEN ZELLNER

“I wanted to share with you the great appreciation the West 8th team has for Stephen Zellner, especially the building engineers! Although he had a good size task ahead of him, he worked very closely with the engineering team to help them understand not only what he is doing and correcting, but what they can do going forward to better their knowledge and operations of the system. He was very approachable and took the time to honestly answer all their questions with an attitude of working alongside them for the same goal. He was truly a pleasure to have around. We will happily welcome Stephen back anytime and it’s someone like him that will make us go back to MacMiller for future ventures.”

*Nick Pickering, Manager, AS Engineering Operations – CBRE Asset Services*



## A tight team for a tight deadline


✳ BY KRISTEN KILLEN

### WeWork, Tenant Improvement for Historic Portland Building

For this 3-story tenant improvement project in Portland’s historic Power and Light Building, MacDonald-Miller had to respond quickly to propose, design and immediately start work to accommodate WeWorks’ tight deadline.

Designing new systems with an old building footprint is always challenging. This is especially true for this project, as WeWork, a company offering custom shared office space, never proceeds with a project until they have tenants signed. The result is a deadline that can’t be delayed! This extremely fast-track project encompasses nearly \$2 million in scope and needs to be completed in just a few months. The expected completion date for Level 12 is June 1, 2018, with Levels 10 and 11 following with a July 2, 2018 completion date.

Our HVAC scope of work includes a 4-pipe heating hot water and chilled water fan coil units. We will implement in-house Honeywell controls, and the design involves three separate floors totaling approximately 50,000 SF.

A big shout-out goes to Superintendents Tom Mitchell and Mark Croman, who’ve been on-site working with the crews. Our sheet metal and fitting groups have been working so well together! Brian Hickory, Project Manager, has been instrumental working with our team and the general contractor, HST Construction, to keep everyone on schedule. And that’s no easy task! 





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WASHINGTON & OREGON



# PERSPECTIVE

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Queen Anne Station Post Office  
Equipment Upgrade

