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PERSPECTIVE

VOLUME **5** | QTR **3** | **2017**

Keeping Columbia Sportswear in shape

★ BY MARK DEWEIRD

We MacMillians have witnessed our fearless leader climbing peaks, racing mountain bikes and fishing rivers for many years. As a company, all of us love these outdoor adventures – such activities have been part of the MacDonald-Miller culture for decades. It's this link to the outdoors that makes our business relationship with Columbia Sportswear in Portland so special. The dynamic interplay between our Service Department, Building Performance Group (BPG) and Service Special Projects (SSP) teams in serving Columbia Sportswear made for a seamless, enjoyable undertaking. Liz Scott launched the adventure in 2015 with a service agreement, but immediately recognized that

the client had other needs we could assist them with. She called in the experts from BPG and SSP and led a round table discussion with the client that covered downtime, comfort issues, control system migration paths, and energy consumption concerns. Now, two years later, we still maintain a strong Service relationship – and the client has a new chiller and Catalyst control system that's saving \$3,000 annually (or 44,079 kWh per year). All that awesomeness propelled Columbia to engage in the next step to unify various campus control systems through Josh Stephenson's presentation on ICONICS facility analytics. What a great adventure!







TO CHET BATES

"Our MacMiller technician, Chet Bates, is great. He's always smiling, is very efficient, and is a great representation of your company. Also, whenever I've had to call in a service request, the dispatchers in the office have been very helpful and prompt in getting a tech out here."

Nicole Bushie, Custom Hydraulic & Machine

Gus Simonds

President



2017 Halftime Report

As I drove into the office this morning it was clear how lucky we are to have such a vibrant community in the Northwest and a great company to be part of. The economy of our region continues to be strong, creating an exciting business environment of innovation and expansion. In this issue of Perspective, the broad diversity of work and innovation MacDonald-Miller engages in is evident. From skyline-changing new buildings like 9th & Lenora, to a water fountain retrofit for Boeing, to building energy tune-up analysis, we have a lot going on.

Congratulations to our Safety Team on Winning the AGC safest company award (3 years running) and to all our MacMillians that make safety part of a quality job every day!

MacMiller has been selected to take on the new Rainier Square project in downtown Seattle – a spectacular 60-story office building that will be under construction from 2018-2020. Rainier Square adds to our backlog of work extending through 2020, along with the Swedish First Hill Transformation and the Seattle Convention Center Expansion.

Our new Everett office is now opening on Airport Way, stop in and say "hi" if you're in the area. Our work in Snohomish County continues to flourish with valued partners like Snohomish PUD promoting building efficiency projects.

I'm proud to see what a broad base of talent and expertise we have in our over 1,000 employees. Our ability to do so much and be part of the economic engine throughout the communities in Washington and Oregon ensures that MacMiller is ready to respond 24/7 – in good times or tough times – for decades to come.

Let's enjoy the good times and the good summer weather – there's no place like home!



We are one in a million!

AGC Safety Excellence Award

Safety is at the core of everything we do.
Our ongoing training, education and personal
discipline have created the environment of safety
excellence that we enjoy at MacDonald-Miller. Due
to our tireless safety efforts MacMiller was awarded

the AGC Build Washington Award for over

1 million worker hours for the third year in a row!

"This award is not just a reflection on Lee Pyfrom and our great safety team. It is a reflection on all of us. It's not always easy to do the safe thing, sometimes it takes courage to look out for your coworker as well as yourself with the pressure and demanding schedules we face in our daily jobs. It is what we do!

Nothing is more important to the company than all of you. Thank you for making the correct choices every day and for all of the hard work. It's just one of the many things we do that makes us different and the best."

- Mark Webster, Executive VP, Chief Operating Officer







Getting in tune

Seattle Tune-Up: Mandatory program to affect Seattle building owners

* BY MEG LANDIES

Seattle's Building Tune-Ups Ordinance passed in March 2016 as an active step in achieving the carbon-neutrality initiative of Seattle's Climate Action Plan. The tune-up ordinance aims to change building operations and maintenance, with the goal of finding optimization opportunities, focusing on actions with a typical up to 3-year payback and potential to generate 10-15% in energy savings.

What the policy means for MacDonald-Miller's Seattle customers:

The program requires all commercial buildings over 50,000 SF to perform a building tune-up beginning in 2018, affecting approximately 800 buildings in Seattle. The MacMiller objective is for our customers to be confident they are choosing the best option for their building – which may be a low-cost tune, a full tune, finding alternative compliance, or paying the penalty.

The policy is not a one-size-fits-all program, as the ideal solution will vary from building to building. The program has several built-in exceptions and compliance pathways, which vary based on the building's status and current energy performance.

The cost of inaction: There is a fine system in place ranging from \$2,000-\$25,000. The cost of compliance puts it in the business owner's best interest to act, as the cost of improvements recommended from a tune-up assessment can be simple adjustments, adding value to the building and costing less than the fine.

MacMiller helps our customers navigate the process. The city requires a certified specialist to verify the accuracy of the assessment and accuracy of the checklist. We have compliance specialists who can perform the building tune-up and perform system adjustments.

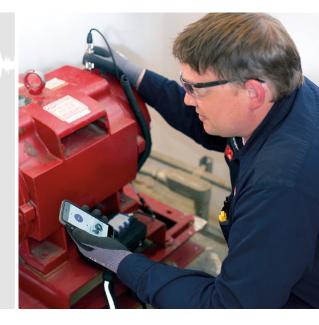
Our goal is to provide building owners with a better understanding of the new code and identify compliance methodologies that add value, while minimizing operational impact to engineering and management teams.

Our machines are telling us something...

Augury has created a tool that will radically change the future of equipment maintenance. The tool is compact and can be used by our service technicians during their normal maintenance visits. The Auguscope captures machine vibrations and translates them into machine speak to be analyzed. Once analyzed, a report is generated that conveys the health condition of the equipment.

Our service technicians can connect the Auguscope to chillers, pumps, fans, and cooling towers to record the vibrations. These early diagnostics can identify issues before equipment breakdown occurs and give our customers time to plan for shutdowns.

The Auguscope is an exciting part of our predictive maintenance offering, and is a great complement to our existing preventive maintenance program.





Adding expertise to the expansion

Stratus at 9th & Lenora | Seattle, Washington

BY MICHAEL WEBER

9th & Lenora is a 45-story, 396-unit residential tower located across from Amazon's main campus. This project follows on the heels of the recently completed 2030 8th Ave project, part of the initiative to meet the demand for additional housing in the rapidly expanding SLU/Denny Triangle neighborhood.

On April 8th, 2017, months of planning, coordination, and shop fabrication culminated in a series of flawlessly executed crane picks at 9th & Lenora. Early in the project, MacDonald-Miller worked with Sellen to develop a plan to

set our major equipment in place and build the slab above our equipment. The tight project schedule, as well as the fact that the main mechanical room was not located on the highest floor, necessitated that major mechanical room equipment be set in place before the slab above could be formed and poured. MacMiller seized this opportunity to create seismically engineered, prefabricated skids for our large hydronic pumps and boilers, as well as set domestic water boilers and a hot water storage tank directly into place. Although there wasn't an opportunity to utilize multi-trade racks due to the smaller size of the room and the slab formwork, we were able to maximize our prefabrication opportunities utilizing the skids. In the following weeks,

the remaining equipment and pre-fabricated piping were lifted into place. The pre-fabricated skids and piping allowed us to accelerate the mechanical room build-out to keep up with an aggressive project schedule.

While many players were involved in executing this work, big shout-outs are deserved for Bob Freeman, Pipefitting General Foreman, who worked closely with detailing to develop the skid design, and Bill Dixon, Pipe Shop Foreman, who collaborated with the field to make sure every detail was covered for the skids so that the pick would go smoothly. This project is on track with a completion date of December 2017 and will be LEED Silver certified.

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 three 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.



Greg Nanadjanians

PIPING & PLUMBING ENGINEERING MANAGER

Years with MacMiller:

28 years

Back in the best hands...

One of my memorable moments with MacMiller was when all employees were asked to gather in the upper building warehouse and Fred Sigmund announced that he had repurchased the company back from Encompass. We all stood up, cheered and applauded for more than 5 minutes.

Green thumb, strong fingers...

As hobbies, I enjoy both gardening and home projects.



The three MacMiller folks featured above are working together on the 9th & Lenora project, detailed in the article on the left.



Bob Freeman

PIPEFITTING GENERAL FOREMAN

Years with MacMiller:

I started my apprenticeship in 2000, when I was 18. I rotated out in 2002 and naturally, I came back in 2005 like a boss, because the Mighty Mac always felt like home.

Like an action movie!

The most memorable experience I had here was in 2002 when I was called upon to help with a weekend shutdown. When I got to the building, semi-trucks lined the street and a helicopter was sitting in an open parking lot – we were using it to pull a chiller and couple cooling towers off the top of the building and fly the new equipment up. We got the building back to operational by Sunday night, and that's when I realized how awesome the Mighty MacMiller was.

Peace among the plants...

Something my coworkers don't know about me is that I often hang out at Sky Nursery in their beautiful greenhouse to clear my mind. I recommend a visit if you enjoy good people and great flowers and plants.





Mark Reynolds, III

SENIOR PROJECT ENGINEER

Years with MacMiller:

I've enjoyed 16 wonderful years at MacMiller and counting!

All in...

I really love the creative process. A few years ago, when I was working on the Block 45 project, I remember waking up at 4:30 am and thinking how lucky I was to get up to go to my job that day. And I still feel like that every day! I'll probably work until I am 70 if I can.

What my co-workers may not know about me:

The engineering department knows this, but others may not know that not only am I a licensed mechanical engineer, I am also a licensed architect!



Quenching Boeing's thirst

BY KEVIN ANWAY

Leveraging MacDonald-Miller's unparalleled expertise and depth of resources, Washington Patriot selected us to replace 100 drinking fountains at 6 separate buildings on the Everett Boeing Campus. Our Construction Special Projects Plumbing Superintendents, Kevin Tronsdal and Jason McDonough, pulled just about every string possible to get a crew of 7 plumbers on site for the one month project duration. Of special note, Tronsdal and McDonough were instrumental in keeping the crew on task with the 6-day, 10-hr shifts for the duration. While every building required a separate permit and inspection, the MacMiller reputation for doing quality work allowed us to get a minimal review from the plumbing inspector. This went a long way in maintaining schedule timelines. Since the end of 2016, an additional 126 fountains have been added to our scope of work, and all installations were completed in early May. We want to credit Washington Patriot for running a well-oiled machine, as they've been tremendous at keeping the abatement contractor, the electrician, the drywall contractor, painter, and MacMiller all working together seamlessly.

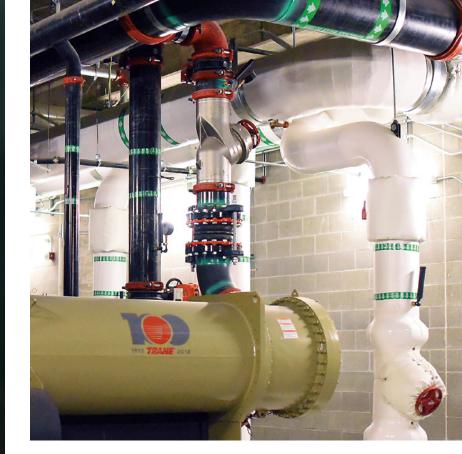




TO LEVI BURCK

"Working with our technician Levi Burck is what I enjoy most about the service. He is fantastic – full of knowledge, courteous, and very helpful. This relationship is incredibly important in our decision to contract MacMiller."

Daniel Sanderman, Pacific NW Properties



Tons of teamwork

★ BY SHAWN HAVELY

Lincoln Square Expansion Central Plant

This past January, the Lincoln Square Expansion Project brought the chilled water central plant online, which serves the entirety of the campus including a 31-story office tower, 41-story residential tower and 3-story retail podium. The central plant consists of (4) 750-ton centrifugal water chillers that are interconnected with the 3,000-ton cooling tower located at the top of the office tower structure. These systems are connected via 18" carbon steel condenser water piping with (2) 100 horsepower pumps moving thousands of gallons of condenser water several hundred feet between these massive pieces of equipment. The chilled water distributes to the podium and towers via a network of pumps and thousands of feet of carbon steel and copper piping serving a range of air handlers, fan coil units, water source heat pumps and compressor racks. This central plant provides enough cooling to serve the needs of 13 commercial kitchens and restaurants, 120,000 SF of retail and common areas, 227 hotel rooms, 220 residential apartments and over 700,000 SF of office tower space.

This facility will serve the cooling needs of over 6,000 people and a total of 1.6 million SF.

The MacDonald-Miller team adeptly addressed the unique needs of a mixed-use facility, providing an innovative concept and design, purchasing millions of dollars in equipment, fabricating tons of steel pipe and supports, and engaging thousands of man-hours to install one of the largest commercial central plants in the Pacific Northwest. It is a massive achievement accomplishing this task within a 3-year timespan. This immense project owes its success to the hard work and dedication of the men and women of our MacMiller team, and to that of the partners at Kemper Development Company and GLY Construction.

In the mix with BASF

★ BY STEVE FLINK

Kent, Washington | Contract Value: \$1.2 million

BASF Chemicals produces admixtures for the construction industry. At their Kent facility, they process/mix raw materials into finished goods. To accommodate the expansion of their facility, the company opted to move next door into an existing building twice the square footage of their previous location. This required preparing the existing building to support an operation that included general construction, an office remodel, new HVAC, plumbing/piping upgrades (new water service, gas, compressed air, water), and a complete electrical upgrade. The mechanical systems were designed and built to serve both the facility and BASF's manufacturing chemical admix processes.

What started as a contract to install a new water service evolved into a general construction project managed by MacDonald-Miller. As BASF learned more about MacMiller's capabilities, they realized that we'd be the ideal general contractor for the project.

This project proved to be both fun and quite challenging. We completely revamped their entire electrical system to support the building infrastructure and BASF's chemical production process – from emergency lighting to all their chemical pumps and control valves. A huge advantage for MacMiller was having Ron Jimerson – a true jack-of-all-trades – in our arsenal. Besides all the concrete pads and the office remodel, Ron cut-in and installed a dock leveler and galvanized steel stairs (beautifully fabricated by our shop), framed-in and installed roll-up fire doors, saw-cut through structural wall to railway tracks complete with structural steel supports, installed new fencing inside and out, installed new steel ramps and chemical containment, and executed the assembly and installation of a pre-fab sampling lab. His accomplishments and talents were quite impressive!



Clayton Parker, Byron Cross and their team did the heavy lifting required to bring an old building up to code, while incorporating the processing electrical requirements. Mike Pinchin and our fitters flawlessly executed the shutdown of the heart of the plant (the mezzanine and the mixing tanks), allowing them to be placed back into operation. Tim Felton, Rick Wolf and their sheet metal crew installed a beautiful Make Up Air unit (MUA) and exhaust system to mitigate the chemical hazard material risks. Paul Monsen and his plumbers, Chris Cory, Stephen McGregor and Max Beuter jumped in on short notice to satisfy all the building and process plumbing. Our MacMiller Controls Group design-built the controls to run the process MUA and exhaust system. Given all these intense efforts, our MacMiller team was quickly on a first-name basis with the City of Kent inspectors and fire marshal.







TO THE REPAIR CREW

One afternoon, we got a frantic call from the Building Chief at Columbia Center who informed us that one of the original tower mains had sprung a leak - and a 16" diameter pipe leak can turn into a catastrophe very quickly. With an emergency power assist by Electrical Journeyman, Ryan MacFarlan, our fitters Ryan Martin, Josh Hughes, Chris Rahm, and our welder Dave Johnson worked all through the night to get the repair completed (at 3 AM!) with enough time to get the building up and going again before start of business on Thursday. As the entire HVAC system for the whole 76-story building is dependent on this riser, getting the repair completed overnight was a massive relief. I want to extend an extra special thank you to this crew, and pass along the Building Chief's compliments on our overall team response, and his appreciation for Dave's spectacular welding skills. Your commitment to our customer is very much appreciated. I also have to thank Tamara Berryhill, Jeff Smith, and Jason Zembrycki, for helping me pull this together.

Marie Gruel,
MacDonald-Miller Account Executive

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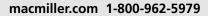












SEATTLE EVERETT BELLEVUE TACOMA MOSES LAKE PORTLAND EUGENE BEND



