

HIGHLIGHTS

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PERSPECTIVE

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Filling a tall order

✦ BY REAGAN J. PERRY

MacDonald-Miller continues to help shape the Seattle skyline with the recent award of the iconic Rainier Square project in the center of downtown. This project is the dream of developer Wright Runstad, who was awarded the development rights by The University of Washington, based, in part, on the unique shape of the building's design. UW selected general contractor Lease Crutcher Lewis and, consequently, the project was awarded to MacMiller after our pre-construction team identified and solved several design challenges that had been unresolved by our competitors. The project consists of three-quarters of a city block, located at 5th & Union, and will redefine the remaining block around the existing Rainier Tower building. When completed, the 58-story tower will become the second tallest tower in downtown Seattle, trailing only the Columbia Center's 76 floors. Rainier Square will include over 1.2 million SF of construction, including 40 stories of shell and core office space, with 18 floors of residential apartments on top.

Amazon is already committed to lease all 40 floors of the office tower. This will encompass over 772,000 SF, including a full cafeteria floor.

The project also includes a new 12-story, 168-room luxury hotel over a parking garage and retail podium. The hotel is being co-developed with New York developer, Related

DEVELOPER: Wright Runstad | **GC:** Lease Crutcher Lewis | **SCOPE:** HVAC and Plumbing



Group, who plans to combine the Equinox health club brand with a hotel that targets the "fit-conscious traveler". In addition to a full health club space, the hotel will also include a rooftop bar and patio space.

The street levels will include several restaurants and retail spaces including the recently announced PCC Community Market that will fill out over 20,000 SF. PCC hopes to service the urban and ever-growing permanent population that lives downtown, including the prospective residential tenants within the building.

✦ CONTINUED ON P6



➔ TO AARON UNGER

"Wow. Aaron Unger came out yesterday to address some of the issues that were in my email. He fixed what he could on the list and a couple other items I had noticed. We also had to dig deeper into the chiller issues. Our lead chiller was not running correctly due to some programming issues from someone previous. I feel every time he comes out our building runs better. I really appreciate him going above and beyond what he was sent out to do. I just wanted to say thank you for sending him out."

Paul Garber, Smith Towers, Unico

Gus Simonds
President



Talking Buildings

Now, connecting with our customers will take on another dimension – real time communication with the building and its operating systems – big and small. Cloud and wireless technology has become cost effective enough that large amounts of information can be shared on mobile platforms to access building operations anytime and anywhere there's internet connectivity. Then buildings can more meaningfully "talk" with us and, in turn, we at MacDonald-Miller can listen, advise and tune the building for optimum performance. There are several important stakeholders pushing the building connectivity business: cloud computing service providers, hardware or device manufacturers that are giving and gathering data to and from the buildings' equipment, software companies that build platforms that organize the information for human consumption and – most importantly – building operations experts (MacMiller!) that listen and understand the building's engineering and can make intelligent adjustments. We make buildings work better, and to do that MacMiller must be committed to being a leader in connecting and listening to buildings, big and small. Yes, even small buildings, through affordable WIFI communicating thermostats, are giving valuable information about the health of their rooftop equipment or building comfort, 24/7. Currently, we are connected and talking to 22 buildings, and by 2020 we plan to be connected to over 200.

Other big news this summer is our selection by Skanska to work on the Microsoft Redmond Campus Rebuild Project. This project is one of the largest projects in the USA. Work will begin in 2019 and continue into 2022.

A cold beverage toast to you and your families for a great NW summer!

NEVER FEAR

When design schedules collide, MacMiller Engineering is here!

✦ BY REAGAN J. PERRY, EVP

A huge **THANK YOU** goes out to the entire Engineering Department who have been burning the midnight oil to help meet client deadlines over the past several months. As the Seattle market continues to boom, we can't always ensure project schedules will line up perfectly for our planned workload. Fortunately, our engineering team is full of Superheroes who put in the extra time when needed!

METRICS » SINCE JANUARY OF THIS YEAR:



- 15** after-hours work parties
- 1000** HRS of overtime worked
- 1.5** million SF of space designed
- 2** million CFM of ductwork designed
- 200,000** LF of waste & vent
- 100,000** LF of HVAC piping
- 10,000** plumbing fixtures specified
- 45** engineers on staff
- 3000 tons:** Largest cooling load designed
- 20** engineers with 10+ years at MacMiller

OVER 99 PIZZAS EATEN



ONE MILLION LBS OF DUCTWORK DRAWN.

Which is equivalent to the weight of 200,000 gallons of ice cream.



COMPREHENSIVE BUILDING INTELLIGENCE

We strive for smarter

✦ BY MEG LANDIES

Every year, new technology is developed to make lives easier and help save time, energy and money. MacDonald-Miller is committed to staying ahead of the curve, which is why we've created **Connected Building Solutions** – blending traditional HVAC Mechanical services with innovative technology to provide our customers with **comprehensive building intelligence**.

Using smart devices with service capabilities, we can now offer report accessibility, 24/7 monitoring, increased comfort and maximized equipment performance.

By connecting with your building's HVAC system through a smart device, your system can provide meaningful insights and alerts,

24/7 » 365

so MacMiller can forecast potential problems before they become expensive issues. Through this connected solution, we can predict equipment failures, reduce the number of service calls and lower overall maintenance costs!

The beauty of Connected Building Solutions is that it's truly tailored to the needs and budget of the customer. Regardless of the building system complexity, we can create a solution to be a best fit for the building. At MacMiller, we feel that every facility, no matter the size, age, or level of equipment sophistication, can be a smarter building. **When buildings speak, we respond.**

We just did it for Nike

✦ BY CHRIS GRIFFITHS

Project Scope: The scope entailed replacing and retrofitting the major mechanical and domestic hot water equipment and systems in the Bo Jackson Fitness Center at the Nike World Headquarters Campus.

Our Teams: This project involved the sheet metal, pipe fitting and plumbing crews. We also utilized the test and balance team as well as service techs and boiler techs for startup and commissioning.

The Challenges: We had a 3-week window to remove all the equipment out of the 2 penthouses, install new equipment and have the building back up and running. There was also crane and equipment rigging challenges associated with moving all the equipment in and out safely and effectively in extremely crowded penthouses. MacMiller put together a great plan of action to sequence the work, make the project move

smoothly and allow us to complete the job on time and turn the building back over.

How We Shined: MacMiller's design-build approach allowed us to meet very tight pre-construction timelines and schedule and complete the project before Nike's fiscal year (end of May).

More Nike? We are already starting to budget projects for Nike's next fiscal year's capital budget!

Kudos: The field superintendents (Brent Campbell, Tom Mitchell, Mark Croman and Derek St. Clair) did a great job lining out the crews and making the magic happen in the field to meet such a compressed schedule!



OFTEN HEARD AROUND THE WATER COOLER...



DESIGN-BUILD WITH BIM

HVAC AND PLUMBING

186,806 SF

5 FLOORS

TIMELINE | 9 MONTHS

6 MONTHS CONSTRUCTION

3 MONTHS PRECON/BIM



Big Fish Games: Historic building, historic collaboration BY RYAN RONGCAL

GC: Abbott Construction | ARCHITECT: Interior Architects

Maritime Building, TI, Seattle, WA

For this historical tenant improvement in the Maritime Building in downtown Seattle, MacDonald-Miller provided a new VAV system, DDC Controls and self-performed NEBB certified air balancing for Big Fish Games' 5-story project.

The plumbing scope included restrooms, hospitality bar and kitchenette, and MacMiller led a coordinated BIM process that included a highly collaborative detailing process between our engineering and detailing groups. This endeavor also included utilization of the Revit Fabrication software. With this system our team was able to design and detail systems within tolerances of an 1/8" to ensure successful routing of duct and pipe systems through highly congested spaces.

Specific challenges

The age of the building (100+ years old) was challenging due to the structural differences of each floor. Basically, each floor had a different ceiling height and structural beams did not stack consistently throughout.

The original height of the Maritime Building was only 5 stories, but the shell and core construction added two more levels of office space and one level of amenities space for the top floor. And, each floor presented its own challenges in keeping ceiling heights at a Class A commercial building rating.

Original structure

The restoration of the building was during the shell and core portion of the project, which overlapped with the TI portion. The TI schedule started roughly around the 75% mark of the shell and core project. Turner Construction managed the shell and core portion and NBBJ was the architect. The intent was to restore all the original wood structure that was covered in multiple layers of paint including lead, which the shell and core contractor removed by sandblasting. The lead abatement continued halfway through the TI portion.

History of the Building

The property is currently owned by Beacon Capital Partners, and Big Fish Games is leasing floors 2-8. Headquartered in Seattle, Big Fish Games was founded in 2002 and is the world's largest producer and distributor of casual games, delivering fun to millions of people around the world.

Built in 1911, the Maritime building is one of the last heavy timber post buildings along Seattle's waterfront. It was

designed by architect E.W. Houghton and was originally known as the Pacific Warehouse Building, according to information filed with the city's Landmarks Preservation Board. It was sold to the Maritime Corporation in 1942, and has housed everything from industrial

← CONTINUED ON P6

"MacMiller has been involved with the project from the beginning and has been a true partner throughout. As we approach the end of this project I can say with certainty that MacMiller is one of the huge reasons why this project has been so successful. Whether it was leading the efforts on a challenging MEP process due to the nuances a 100+ year-old building brings with it or being advocates for the Lean planning, I knew I could count on the entire MacMiller team. Thank you to everyone involved." – The Abbott Construction Team

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 four different individuals can make one team greatly successful.



CULTURE

Perry Christian

PROJECT ENGINEER

Years with MacMiller: 7 years

It comes from culture...

Working for a few other companies over the years has given me a perspective of just how special a place MacMiller is. The culture here is a major reason why we produce a top-quality product from our engineering practices, detailing work and installation crews. I am constantly impressed with the support I encounter from every department to achieve a high-level finished project. It's amazing that even when someone could take a shortcut or just get it done, the folks around here take an extra step to make sure that we do things in the best interest of the customer.

Family & Fitness

I have been happily married for 16 years, with 4 kids... my eldest (daughter) is married and a recent WSU grad. I enjoy running in the Tough Mudder obstacle race, Crossfit, and watching my home teams play. Go Sounders, Seahawks, M's, and let's bring back the Sonics!

FUN FACT

The four MacMiller folks featured here are part of the Big Fish Games team, detailed in the article on the left. ←



PEOPLE

Scott Harer

PLUMBING SPECIAL PROJECTS FOREMAN

Years with MacMiller: Almost 2 years

We are family!

What I like most is the people I work with. MacMiller has that family culture where it feels like you're always working with your older or younger brothers.

It's in my genes...

Most people don't know that I am a 3rd generation local 32 plumber. My Dad also worked for MacMiller for a couple of years before he retired.



JOY

Sara Schlicker

CONSTRUCTION SPECIAL PROJECTS SALES COORDINATOR

Years with MacMiller: 1.5 years

Home away from home

Working at MacMiller has been a whirlwind of joy. I truly feel like part of a family, not just within the CSP group, but the entire company!

What you may not know about me:

I have my BA in Criminal Justice and was in the legal field for almost 5 years before coming to MacMiller!



TALENT

Years with MacMiller: 17 years

Never a dull moment

One of the best parts of working here is the large range of work we get to do. From clean rooms for satellites going to space to converting stables from 1910 to a general contractors' office with an all exposed duct system... it's always something new!

Keep that glove down!

Something most don't know about me is that I coach my younger son's baseball team (which is doing really well this year) even though I only played 1 year when I was a kid.



Keith Anderson

SHEET METAL FOREMAN

Rainier Square, *CONTINUED FROM P1*

Another unique aspect of the project includes the cutting edge structural design being employed on the project. The new modular composite steel core system will be the first of its kind in the world and is being called an **ice cream sandwich** – as the design utilizes half inch-thick steel plates as the chocolate cookies, and concrete as the filling. The structure will cut construction time by 40 percent over a traditional concrete core and steel beam system and is designed to perform very well in an earthquake. The concept required our Engineering group to work closely with our detailers to ensure all penetrations through the core were located and designed perfectly as they cannot be added later in the field.

The mechanical systems will include a 3,000-ton central boiler and cooling plant, heat exchangers and pumping stations, floor mounted water-cooled heat pumps, and vertical stack fan coil units for the high-end apartment units on top. The residential space will include guest dog run areas, an amenities level with gathering space, and high bay residential living spaces. The hotel will include heat recovery chillers, boilers and domestic hot water heaters, horizontal fan coil units and heat pump units serving lobby and common spaces. In addition to domestic plumbing systems, MacMiller will help install a state-of-the-art Building Management System to help monitor and control the energy usage throughout the complex. The project began underground plumbing work in May of this year and is scheduled for completion sometime in 2020. 

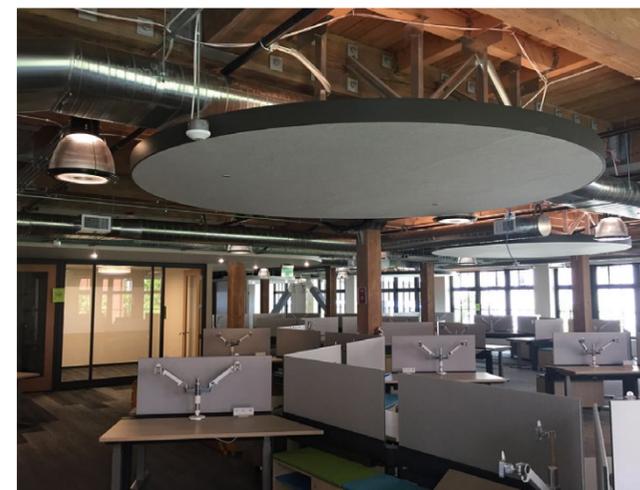


Working well under pressure

✦ BY JON SIGMUND

Boeing Air Manifold

MacDonald-Miller recently refurbished two fuselage air manifolds for The Boeing Company. The existing refurbished manifolds provide full scale fatigue testing for Boeing's 777-200 and 787-8 line of aircraft manufactured in Washington State. Each manifold supplies pressured air to aircraft fuselage that goes through a pressurization/depressurization cycle once per flight. The air will be cycled at least three times the number of cycles an airframe will normally be subject to during its designed service life. MacMiller was also contracted to provide two extensions to these manifolds to accommodate the full-scale fatigue testing for the 777-9 aircraft that will undergo the same fatigue testing. A full test cycle (including the air pressurization/depressurization cycle) will last from a few minutes to a couple hours depending on flight time. 



Big Fish Games, *CONTINUED FROM P4*

businesses to professional offices. The building has maintained an iconic presence in the commercial district along the waterfront locale.

Teamwork

The challenges of meeting Class A ratings and the unique structural nature of the building necessitated a great deal of coordination. We're proud of the collaboration that occurred between Abbott and MacMiller Engineering, Detailing, and Field Foremen to meet the desired intent of the design team and Big Fish Games. 

Killian Pacific: A sustainable relationship

✦ BY JOHN TORREALBA



Killian Pacific, a Vancouver, Washington based property developer, takes a 'people first' approach to doing business. They were searching for the right fit regarding a mechanical contractor to partner with – for this company, a professional and cultural match was essential. "Culture is huge for us and we wanted the right business partner that fit what we were trying to do," noted Toby J. Thew, Chief Engineer at Killian Pacific.

As Killian Pacific holds on to its properties and manages them for years to come, sustainability has always been important. Utilizing many of the MacDonald-Miller solutions, such as MacLens, Mobile Tech, and Call Summaries, we showed the Killian Pacific team what is happening at each of their buildings. This greatly elevated their confidence in our abilities as well as their enthusiasm for working with us.

Through preventative HVAC maintenance, tenant improvement projects, and building controls upgrades, we've proven to be a great fit for Killian Pacific. With over a year of building relationships, MacMiller has been awarded 9 locations, with additional locations on the horizon, helping Killian Pacific grow their portfolio in a sustainable way. 



Photos by Glo Webb

SHOUT OUT!

➡ TO BRANDON THOMAS

"We had you guys come out at Waterfall Garden Park and Brandon Thomas' video was really good at helping me figure out what the heck is going on. Thank you!"

Laurie Patten, Kidder Mathews



Safety Stars

✦ BY LEE PYFROM

It was an honor and a humbling experience to receive the AGC Safety Excellence Award for Specialty Contractor with more than one million hours worked for the 4th year in a row. I have worked for some well-respected companies in my career, but none of them can compete with our safety culture. The Safety Department can create all the safety policies you can think of, provide all the necessary training, but it only takes one employee to make one lapse in judgement and end up being involved in a life ending or life changing accident, so I thank each and every MacDonald-Miller employee for making the conscious decision to work safely each and every day. Please remember that no job is truly successful if someone is injured in the process.

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PERSPECTIVE

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Boeing Air Manifold project

