A Sustainable Surge

Popular support, technological advances and attractive financing propel energy-efficiency and the adaptive re-use of existing buildings

TABLE *of* EXPERTS

CONNOR JANSEN, PE, LEED AP BD+C, RESET AP
Senior Project Manager and Practice Lead

Connor Jansen is a Senior Project Manager and Practice Lead at Slipstream. Over the past 12 years, Mr. Jansen's work has focused on the integration of performance outcomes within the design and operation of buildings. He holistically applies energy efficiency, environmental outcomes, and occupant wellbeing strategies across multiple building types.

KIMBERLY JOHNSTON
Senior Marketing Manager-Strategy

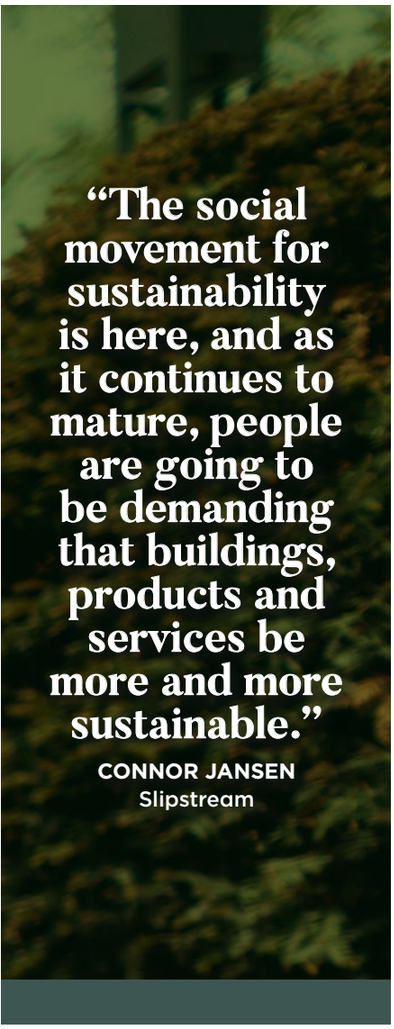
Kimberly Johnston is the Sr. Marketing Manager for PACE Wisconsin. Kimberly has over 25 years of marketing experience and has worked in clean energy financing initiatives the last 7 years. PACE Wisconsin serves as the statewide single point of access for property owners, member communities, contractors, and lenders to qualify projects for Commercial Property Assessed Clean Energy (C-PACE) financing.

AARON KAPELLUSCH
Regional Manager

Aaron Kapellusch is the Regional Manager-Wisconsin for Sebert Landscape, the 2nd largest commercial landscape management firm in the Midwest. With two offices in Wisconsin and five in IL, Sebert is an industry innovator with respect to sustainable landscape practices. Aaron joined the company in 2017, and is thrilled to be back to his roots in the industry.

MICHAEL RUENZ
AI Project Manager / Field Safety Team

Michael came to Balestrieri in 2007 with 15+ years of construction experience in residential and commercial framing and materials distribution. Since joining Balestrieri he has performed as the field technician on their team and now holds a field management position specializing in commercial plant and manufacturing projects.



The business community increasingly see sustainability as the key to a community's economic growth. It can benefit individual businesses by reducing energy costs, improving their ability to recruit and retain talent, and enhancing their brand. It benefits the community by preserving and enhancing local natural resources and by making the community a desirable place to live and work. Low-cost financing packages and incentive programs have made it affordable for more companies. The Milwaukee Business Journal recently assembled a panel of experts to explore why sustainability is important, what property owners can do to promote sustainability both inside and outside of their buildings, and how technology and financial incentives are making it an increasingly affordable investment.

MODERATOR: LET'S START BY DEFINING SUSTAINABILITY AND WHY YOU THINK IT IS IMPORTANT FOR ATTRACTING TALENT, POSITIONING A COMPANY'S BRAND AND GENERATING ECONOMIC GROWTH.

CONNOR JANSEN: The United Nations defined sustainability as meeting the needs of the present without compromising the ability of future generations to meet their needs. Sustainability also ties back to the Wisconsin conservation movement of the 1920s, which was trying to find ways to build or live on a piece of land without spoiling it. Both of these ideas tie into each other. The social movement for sustainability is here, and as it continues to mature, people are going to be demanding that buildings, products and services be more and more sustainable.

AARON KAPELLUSCH: People often look at the landscape industry as a commodity, which I disagree with. Sustainability helps us to differentiate ourselves. We use propane mowers instead of gas-powered mowers. We've developed solar-powered trailers that we can use to recharge equipment and we have worked with well known commercial equipment manufactures on helping them improve their battery-powered equipment. We're also focused on applying no more herbicides or fertilizer than necessary. We are continually looking for new ways to reduce our carbon footprint and preserve the environment. That's been our founder's mission since he started the company 35 years ago. That focus helps us attract talent and helps us partner with other like-minded companies. And it is just the right thing to do.

MICHAEL RUENZ: One of our primary services is the adaptive reuse of existing buildings. A lot of our clients want to bring back the natural finishes so the building will look again like it was just built with the old brick and wood beam structure. When you walk into these places, you get a feeling of stepping back. It is relaxing and comforting. And it reduces the carbon footprint because you are adapting an existing building instead of demolishing and building new. There are fewer materials going to the landfill. We also look to reuse and recycle materials whenever we can.

KIMBERLY JOHNSTON: For communities, clean-energy financing is both an economic development tool, because it incentivizes commercial building owners to implement energy-reducing measures, and a sustainability tool, because it updates existing properties and reduces the community's carbon footprint. Clean energy financing is now available to property owners in more than 40 counties in the state through PACE Wisconsin, which works with participating property assessed clean energy (PACE) lenders to provide zero-down, low-cost financing for energy-savings measures.

WHAT IS MEANT BY NET ZERO AND HOW DOES IT RELATE TO SUSTAINABILITY?

JANSEN: There are an increasing number of buildings that both use and produce power. In order for a building to be considered net zero, it has to produce the same amount of energy that it consumes on an annual basis. This is a new concept now, but it will become increasingly achievable as technology improves the ability to produce energy through solar panels and other means, and reduces the consumption of power through more advanced, energy-efficiency solutions.

HOW MUCH OF A PREMIUM DO BUILDING OWNERS AND DEVELOPERS INCUR FOR INCORPORATING SUSTAINABILITY INTO A NEW BUILDING OR LANDSCAPE DESIGN? IS THAT PREMIUM MITIGATED BY A LOWER COST OF OWNERSHIP?

JOHNSTON: With PACE Wisconsin, C-PACE financing offers commercial building owners the opportunity to implement energy-saving features with long-term, low-interest financing with no money down. In order to qualify, the building has to pass an energy audit demonstrating the project will generate sufficient energy savings. The math has to work out, which means the clean energy measures you implement will generate cash flow benefits. And you get the added benefit of an immediate return on investment with energy savings and a positive cash flow.

RUENZ: Not being the builder or designer, I really don't have a lot to say about this, except that adapting an existing space and re-using or recycling materials can lower landfill costs. A lot of the material that we remove from the buildings we work on can be recycled. Two by fours, for example can be ground up into landscape mulch. Concrete can be ground up into crushed stone for paths. And, if you recycle in place, you don't have hauling costs. We look for ways to lower costs for building owners by looking for vendors who recycle materials. For example, you can get a return on recycled steel, on electronic waste and other materials. We worked on a large office building where were able to repurpose the ceiling tiles. You can do the same thing with carpet as well. That's a great way to be sustainable, because you're re-using good carpet instead of throwing it out and having to purchase it new. We help our clients look for those kinds of solutions.

KAPELLUSCH: There can be more upfront cost, but you have to look at the life of the project. The most expensive and carbon-intensive plant is turf, due to the cost of watering, fertilizing and mowing. If you can reduce your turf footprint by using natives or other perennial plants, you are going to save money over the long term.

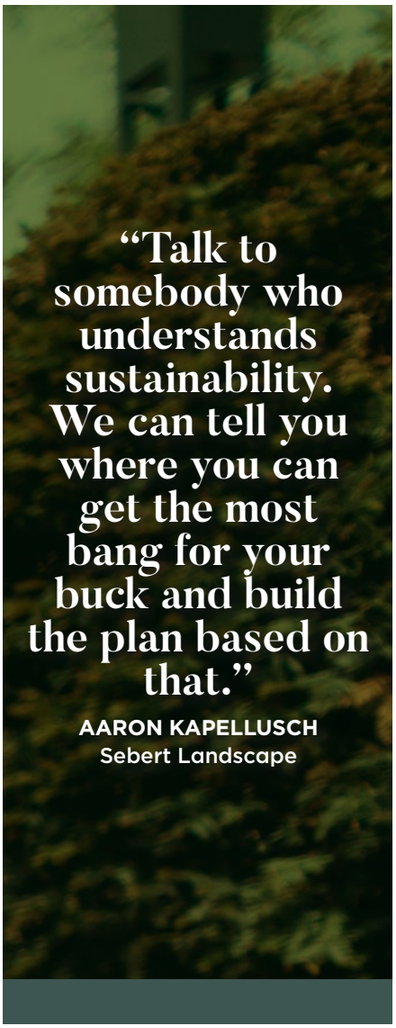
JANSEN: I have seen projects that met really high sustainability aspirations with little or no cost premium. In order to minimize any premium, however, it's important to invest upfront in a design team that can do the planning and return-on-investment analyses. If you try to tack on sustainability items at the end of the project, it can get pretty expensive, pretty quick.

HOW DIFFICULT IS IT TO RETROFIT SUSTAINABILITY FEATURES IN AN EXISTING DEVELOPMENT?

RUENZ: We specialize in adaptive re-use of existing buildings and we do that cost efficiently by turnkeying these projects. We can bring all the different trades in. We look to use local companies to keep dollars in the community. We can also help developers and building owners come up with ideas, means and methods to meet or exceed requirements for historical tax credits.

KAPELLUSCH: Retrofitting is a little bit easier in the landscape industry because you're dealing with soil and plants instead of a building. A lot of times, we talk about a five-year plan. You can start with the entryways – the areas that leave the first impressions – and then work your way out to outskirts of property. Green roofs are a good example of retrofitting, of utilizing a space that you might not have used otherwise. Green roofs use low-maintenance succulent plants, which don't need a lot of maintenance, that are planted in a grid. They intercept rainwater, preventing it from going into the storm sewers. We do a lot of these installations. Companies like them because they combine good stormwater-reduction practices with attractive outdoor areas that can be enjoyed by employees.

JANSEN: Retrofitting an existing building is inherently more sustainable than building it from the ground up. And because the buildings we are designing today are going



to last multiple generations, it's important to get certain aspects right so they are sustainable from the get-go.

JOHNSTON: Retrofitting sustainability features into existing buildings reinvigorates properties and communities. Clean-energy financing makes it affordable, which is especially important in older buildings that might need significant updates: building envelop improvements, HVAC systems upgrades, efficient lighting systems or renewable energy anyway.

WHAT ARE SOME BASIC, LESS EXPENSIVE THINGS THAT CAN BE DONE TO MAKE A NEW OR EXISTING PROPERTY MORE SUSTAINABLE?

KAPELLUSCH: Talk to somebody who understands sustainability. We can tell you where you can get the most bang for your buck and build the plan based on that.

RUENZ: It starts with vision. A lot of that comes from the person writing the check, but it also comes from the architects, designers or contractors. Balestrieri is a visionary company in that sense. We have worked on many different projects from Michigan to Illinois as well as right here in Wisconsin, from the Pabst Complex to the Deer District Area and the Third Ward.

JANSEN: One of the simple things you can do is ask your design team to look for LED lights that are ENERGY STAR® or DesignLights Consortium® listed. They are typically more efficient and they tend to be best-in-class in quality. You can also add light fixtures that have integrated occupancy and daylight sensors. The sensors are typically mandated by code anyway, but having them integrated in the fixture reduces the control points you have to wire, which improves functionality and lowers installation costs.

WHAT TYPES OF FINANCING AND/OR GRANTS ARE AVAILABLE TO HELP MITIGATE THE UPFRONT COSTS FOR EITHER NEW OR EXISTING DEVELOPMENTS?

JOHNSTON: PACE Wisconsin offers C-PACE financing, nonrecourse financing without any out-of-pocket costs. It can be used for energy efficiency updates, renewable energy systems, and water conservation upgrades. Now it can be used to finance brownfield remediation, which is especially beneficial in larger municipalities looking to repurpose former industrial properties. It is an excellent tool to use because it works for small, medium, and large projects. It works for manufacturing and industrial facilities, office buildings, multifamily buildings, health care facilities, hotels, or not-for-profits buildings.

KAPELLUSCH: Utilities – We Energies and Milwaukee Metropolitan Sewerage District (MMSD) – are a great source of financial incentives. We have taken advantage of energy-savings grants from We Energies and stormwater-reduction grants from MMSD. There are all sorts of tools out there to help.

JOHNSTON: The PACE Wisconsin Program works in conjunction with utility rebate programs throughout the state. We have also worked with specialized financing involving historical tax credits.

RUENZ: We don't have anything to do directly with financing, but we do make sure that our processes will allow building owners and developers to meet the requirements to qualify for financial incentives like historic tax credits. For example, we use proprietary technology to clean brick so that its glazing will not be damaged, which is important for complying with historical preservation requirements.

JANSEN: Focus on Energy is a great starting point because they can link you with design professionals to help you figure out best practices. C-PACE financing is also a game changer. You can create a very attractive financing package with utility programs, historical credits and C-PACE financing for very little or no upfront cost.

HOW IS TECHNOLOGY IMPACTING THE ABILITY TO MAKE NEW OR EXISTING DEVELOPMENTS MORE SUSTAINABLE?

KAPELLUSCH: For us, using technology to improve sustainability is huge, because it's what sets us apart. We've reduced our carbon footprint by working directly with manufacturers to prove our new technologies. Take the solar-powered trailer system we developed. All of the ancillary equipment on the trailer – line trimmers and hedge trimmers, for example – are battery powered and can be charged using the trailer's solar panel. We have been able to decrease the cost of those trailers over time. As labor gets tighter, automation will become more important. Some

of the mundane tasks that can be done by automation – robot mowers, for example – allow our people to focus more on the artistic and other details that automation cannot help with.

RUENZ: We are moving to equipment that runs with less manpower. We are also moving to battery equipment, because we typically work in wet environments where the risk of electric shock is high. We are also using drones for site monitoring and safety. We we can use them to pre-project buildings to identify heat loss or thermal differences within the building.

JANSEN: Technology is driving down the incremental cost of energy-efficiency measures. We are seeing significant improvements in heat pumps and heat-pump water heaters that make them more usable in our cold Wisconsin climate. That's pretty exciting, because eventually we are going to have to leave natural gas in the ground if we are going to meet our carbon-reduction goals.

HOW DOES GOOD BUILDING AND LANDSCAPE DESIGN PROMOTE HEALTH AND WELL-BEING IN THE WORKPLACE?

RUENZ: It's the comfort of employees going to work in an environment. Employees feel better and more productive when they're working in a building that has natural finishes and natural light.

KAPELLUSCH: Our goal is to draw people outside, to get people out of the office and to interact with the landscape – whether it is a butterfly or healing garden or a walking path. It is very important for people to experience nature on their breaks, to mentally check out and refocus.

JANSEN: Having a building design that promotes health and wellbeing is important. There are two big standards for building health – WELL Building and Fitwell. They have similar goals but different strategies. There is also a push to move away from harmful materials. There is more transparency about what is in our adhesives, finishes and furniture. You can now ask for products that disclose what they contain and then check to see if those materials are red listed.

JOHNSTON: Green buildings promote a healthy lifestyle—there is a human impact on building science. Our Wisconsin headquarters is a LEED Gold building equipped with Solatube® daylighting systems to let in natural light. The building was designed to be green, sustainable, and high performance. We're located on a walking path and our employees are encouraged to walk, bike, or take public transit to work. As an organization, we also try to attract talent committed to energy efficiency and sustainability. Through C-PACE financing, it's affordable for businesses to achieve their energy efficiency goals.

SUSTAINABILITY HAS COME A LONG WAY DURING THE LAST DECADE. WHAT ARE SOME OF THE EMERGING TRENDS, PRACTICES AND CHALLENGES THAT MAY GIVE US AN INDICATION OF WHERE IT IS HEADED NOW?

JANSEN: As buildings and developments start producing their own energy, grid responsive design is going to become increasingly important. That means that buildings will benefit from batteries or other energy storage to reduce loads in critical demand times. That will lower their peak demand costs and it will also help the power grid.

RUENZ: As middle-aged people and empty nesters move back into revitalized cities, younger families are moving into suburban homes. That is a sustainability event. Revitalizing older buildings so that there is residential on the upper floors and retail on the first floor reinvigorates the community. It creates opportunities for boutique clothing stores, coffee shops, bakeries and yoga studios while eliminating the costs of new construction.

KAPELLUSCH: There are a lot more businesses focused on sustainability then there used to be. We are excited to be a part of that. Sustainability has been a core value of our owner since he started the company 35 years ago. It is something that we live and breathe.

JOHNSTON: PACE Wisconsin is less than five years old, but it is making an impact for commercial businesses and the communities they serve. We continue to help onboard counties in Wisconsin, and we are also helping other states – sharing best practices that we have put into place. The work PACE Wisconsin is doing with C-PACE financing will continue to have a growing impact on large and small communities alike, serving as both an economic development tool and a financial incentive for saving energy.