2016 SUSTAINABILITY REPORT

JACOBS

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Mark Jacobs, Senior Project Director On the Front **Arun** Jacobs, Civil Engineer

Chairman & CEO's Message: Our Commitment to Sustainability





At Jacobs[®] we continually work to design and construct a safer and more sustainable environment for our clients and colleagues worldwide. Every day, with absolute commitment, we focus on project excellence, the well-being of employees, and the health of our planet.

Within the pages of this report, we share detailed information about our ongoing efforts involving sustainable development. From innovative processes to successful project solutions, we seek every opportunity to help our clients meet their sustainable project goals while being responsible stewards of the natural world.

Our internal sustainability actions are highlighted as well. Whether reducing our dependence on paper, minimizing power consumption, or encouraging the use of public transportation, we continue to advance our efforts to become more sustainable in all aspects of our business.

With the passion, dedication, and knowledge of our talented employees around the world, we continue to build a safe and sustainable future for us all. It's what we do.

Steve Demetriou, Chairman & CEO

By the Numbers

SERVICES

LEED-ACCREDITED PROFESSIONALS BREEAM/CEEQUAL ESTIDAMA-CERTIFIED PROFESSIONALS PROFESSIONALS

92 22 5

All numbers at time of publication.

GREEN GLOBE-ACCREDITED PROFESSIONALS

10

All numbers at time of publication.

GREEN STAR

PROIASSOC

JacobsValue+ \$9.6 billion

In savings for our clients in FY2015

REVENUE FROM SUSTAINABLE PROJECTS FY2015 Revenue from LEED Registered/Certified, BREEAM Certified, Estidama Certified

\$203 million

(Revenue is for full services, including sustainable services, provided for clients' qualifying projects, globally)

Jacobs**Sustainability+**21,1 million

Metric tons of carbon saved for our clients in FY2015

CLIENT SATISFACTION SURVEY SCORES FOR 2015

92%

INTERNAL

PAGES OF PAPER SAVED THROUGH OUR PRINT REDUCTION PROGRAM

38 million

(Equivalent to 75,926 reams/183 tons/4,555 trees)

CHARITABLE GIVING CAMPAIGN IN THE U.S. IN FY2015 RAISED:

\$865,131.0

POWER REDUCTION WORLDWIDE DUE TO ENERGY-SAVING MEASURES EMPLOYED ON MANAGED PRINT DEVICES

30%

Our thoughts go out to our friends and colleagues affected by the fires in Alberta, Canada. Almost 2,000 of our field services personnel work in the Fort McMurray region, and 400 live in the city itself.

As a company, our people are our first priority. With this in mind, we donated \$50,000 to the Canadian Red Cross, Jacobs Donates to Canadian Red Cross Alberta Fires Appeal.



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1. CLIENT FEATURES

Take an in-depth look at the ways our clients worldwide have achieved success in meeting their sustainable project goals.

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2. OUR CULTURE

Our commitment to sustainability permeates our culture. From technical project solutions to community participation, we strive to make a positive impact in the world.



3. PROJECT GALLERY 62

We are dedicated to exceeding client expectations. Our project profiles illustrate the way our sustainable services cross all market sectors and geographies.

Jacobs is one of the world's largest and most diverse providers of technical professional and construction services, including all aspects of engineering, architecture, and construction, operations and maintenance, as well as scientific and specialty consulting. We serve a broad range of companies and organizations, including industrial, commercial, and government clients across multiple markets and geographies.

Our global network includes more than 230 offices in more than 30 countries, with operations in North America, South America, Europe, the Middle East, India, Australia, Africa, and Asia. Jacobs was founded in 1947 and our headquarters is in Pasadena, California.

Client Features

Whether it be attending a lunch-and-learn about a new green construction material or asking questions to co-workers across the globe, Jacobs provides an environment that encourages learning new sustainability practices. Our ever-growing knowledge base allows us to provide our clients innovative products.

Natalie

Jacobs, Civil Engineer

SYMBOLS REPRESENTING SUSTAINABLE ELEMENTS

We use the following icons to represent sustainable attributes of various projects and initiatives:

Ó	Carbon savings/reduction	٢	Water savings/reduction
Ó	Energy savings/reduction	(Materials savings/reduction
(\$)	Cost savings/reduction	Ó	Social/community benefits
٩	Environmental benefits	٢	Certified/recognized/award-winni
Ó	Innovation	Ó	Safety
6	Time Savings		



HONG KONG 6 ENVIRONMENTAL **PROTECTION DEPARTMENT**



U.S. ARMY CORPS OF ENGINEERS OMAHA DISTRICT (OWNER)/HENSEL-PHELPS (DESIGN-BUILDER)



INTESA SANPAOLO

16



DORMITORY AUTHORITY 22 **OF THE STATE OF NEW YORK**



AGL ENERGY



CITY OF DALLAS

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Waste Not



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"The Sludge Treatment Facilities are the perfect example of a sustainable project, from relieving pressure on Hong Kong's landfill sites to producing all of our own power in-house through two turbines that utilize steam as a byproduct from the incineration process, and exporting leftover power to the local grid. There is no incoming main water supply and no sewage outfall (zero discharge policy) to the seven-hectare site. Everything is produced and processed within the facility."

David Jacobs, Senior Resident Engineer

Hong Kong Environmental Protection Department converts sewage to energy

n big cities such as Hong Kong, one of the most densely populated areas on our planet, waste disposal is a problem that will never go away and only gets worse over time. The current and growing population of 7 million people create 1,300 metric tons of sewage sludge per day — projected to increase to about 2,000 metric tons by 2027 — and what to do with that waste is a headache-causing challenge.

But where there is a problem, a will to tackle the problem, and a group of dedicated and creative engineers, there is a solution.

Innovative Spark

For decades, Hong Kong mixed its sewage sludge with general household waste and buried it in landfills. To dilute that material and make it stable in a landfill demanded a ratio of one part sludge to ten parts household waste. But the volume of sludge is growing at a faster rate than the volume of household waste, and when those lines crossed, too much sewage sludge found its way into the mix.

Concern increased over the years that large amounts of sludge being deposited into the three Hong Kong landfills could result in the landfills becoming full early, and as the volume of sludge increased there would be insufficient municipal waste to blend with that sludge.



What do you do with processed sewage sludge that is still 70 percent water?

Hong Kong's waste managers imagined and proposed a creative solution: Burn it. With the help of Jacobs' engineers, this solution has been implemented.

The Burn

Will sludge that is mostly water burn? Our intuition might tell us No. But in fact, it will. Not only will it ignite (if you get it hot enough), it will generate enough calorific value to support autocombustion.

Getting something so wet to burn involves heating a vibrating sand "fluidized bed" incinerator and then metering the liquid sludge onto the superheated sand bed, where it ignites. Diesel fuel is used to start off the process by bringing the sand up to an operating temperature of 850°C. Even with three-quarters water, the sludge burns vigorously, and the resulting inert ash is about 10 percent of the original volume, easily absorbed into existing landfills.

Power for the People

An additional benefit of the auto-combustion of the sewage sludge, is that it creates a constant supply of high-pressure steam powerful enough to make surplus electricity that is capable of supporting up to 4,000 average Hong Kong families.

Jacobs' duties involve carrying out contract administration and project management, as well as providing specialist and expert advice on design, construction, and operational aspects of the Hong Kong Sludge Treatment Facilities, which became operational at the beginning of April 2015.

We are proud to work with the Hong Kong Environmental Protection Department and look forward to more innovative projects in years to come.





Energy Target: Zero



Fort Carson aims to be Net Zero Energy Ready

or the U.S. Armed Forces, "Net Zero Energy Ready" is more than just a buzzword target. It's a long-term mission-critical requirement. Why? Because without secure and uninterruptible energy supplies, every mission, no matter the location, is subject to potential failure. And, of course, renewable energy can reduce or eliminate commodity costs associated with fossil fuels.

The overall objective of Net Zero requires all new vertical construction be designed and constructed to minimize all utility demands and to be supplemented by renewable sources.

As part of the relocation of the 4th Infantry Division to Fort Carson, Colorado, U.S.A., a combat aviation brigade was established at Butts Army Airfield (BAAF). In support of Fort Carson's goal of becoming a Net Zero Energy Installation by 2020, the development of BAAF required all facilities be Net Zero Ready, with a sustainability goal of all new construction designed to achieve a minimum Silver Certification level under Leadership in Energy and Environment Design (LEED) for New Construction v2009.



"Incorporating passive and active renewable energy systems allowed the Air Traffic Control Tower project to overcome difficult challenges involving highprocess electrical loads associated with a typical control tower, and therefore achieve a higher LEED Gold rating at no additional cost to our client."

Ken Jacobs, Project Manager

Taking the Lead

In 2012, USACE Omaha District awarded two separate designbuild contracts for two facilities to the 13th Combat Aviation Brigade. The first was an Aviation Support Battalion (ASB) Hangar, a 136,377-square-foot aircraft maintenance facility that includes administrative/operations space, maintenance and repair shops, parts and tool storage, more than 86,500 square feet of aircraft maintenance bays, 58,000 square yards of airfield pavement, and two exterior rotary-wing wash racks.

The second contract was for a 10-story Air Traffic Control Tower (ATCT) and adjoining Air Field Operations Building (AFOB) that provides command, control and management of flight operations, and movement control for the entire BAAF. The total project encompasses 22,624 square feet.

The quest for Net Zero at Fort Carson became very real, with a goal to complete construction on both projects by the end of 2014. Jacobs joined the design-build team to provide architecture, engineering, energy modeling, landscape architecture, interior design, lighting, and sustainable design.

Multifaceted Plan

There is no single template for the design or type of construction that can meet a goal as aggressive as Net Zero Energy Ready. It takes, rather, a combination of many design decisions that coalesce into a unified energy-efficient product in the final design. The plans for both the ASB hangar and the ATCT included maximizing use of energy-efficient equipment, constructing high-performance building envelopes, optimizing building orientation, and promoting continuous commissioning and energy monitoring during operations.

Continued on page 14





Most significant energy conservation methods were:

- A "cool" roof design reflects excess heat
- Efficient LED lights consume half the energy of standard lights with addressable ballasts and advanced lighting controls including daylighting
- Ventilation is pretreated with energy recovery devices that extract energy from the exhaust air streams and transfer to the incoming ventilation air stream
- Employed air-side economoizer cycles to provide "free" cooling during temperate climatic conditions that occur over a large part of the year in the area
- Low-flow plumbing fixtures that not only reduce water consumption by almost 40 percent, but also reduce the energy usage for domestic water heating
- Building automation system allows centralized operators to control, diagnose, and maximize system energy efficiency
- Transpired solar collectors pre-heats outside air before it runs through a heater in the winter
- Ground-mounted photovoltaic array generates a significant portion of the buildings' electricity
- Connected to district energy system that supplies chilled and hot water
- Enhanced air barrier that was tested to minimize energy loss through infiltration/exfiltration

Altogether, these add up to an annual energy usage savings of 105 percent (57 percent reduction without photovoltaics) compared to a similar baseline aircraft maintenance hangar, and 44.5 percent compared to standard air traffic control towers and air field operations buildings. The ASB Hangar not only achieved



"The Net Zero Energy goal established for the ASB Hangar was achieved through our integrated design approach that was centered around a collaborative and integrated planning, design, and construction team composed of U.S. Army Corps of Engineers and the Design-Build Team. We are proud to have delivered the first LEED Platinum certified and Net Zero Energy hangar for the US Army."

Cody Jacobs, Project Manager



its Net Zero Ready goal, but exceeded it as a Net Zero Building, a first of this facility type for the Army. The ASB Hangar was also completed under the established project construction budget.

Sustainability Goals Achieved

Not only did the facilities achieve high levels of energy usage reductions, they also exceeded the established sustainability goals at no additional cost to the government.

For the ASB, there was an 89 percent reduction in waste sent to landfills, 28 percent of on-site materials were recycled, and 41 percent of building materials were acquired nearby. The whole package was honored with an Award for Construction Excellence (ACE) and has achieved LEED Platinum Certification. This is the first LEED Platinum "hangar" type facility for the Army. The USACE Omaha District also recently received the USACE Building the Future Sustainability Award for their partnership with the 13th Combat Aviation Brigade on the ASB Hangar.

The ATCT diverted 78 percent of construction waste from landfills, recycled 36 percent of on-site materials, and acquired 12 percent of building materials nearby.

Jacobs is pleased to have supported Fort Carson's vision to be the "Best Hometown in the Army - Home of America's Best," by contributing to the Department of Defense Net Zero Energy Ready initiative. We are poised to continue this effort on many more similar building designs for the U.S. military.

Towering Success



Images courtesy Andrea Cappello

"Thanks to the clear vision of Intesa Sanpaolo and the enhanced collaboration between all stakeholders involved in the LEED certification process, this outstanding vision became a reality. It is a unique achievement for a skyscraper in Europe."

Chiara Jacobs, Sustainability Engineer



Intesa Sanpaolo builds iconic LEED Platinum headquarters

ntesa Sanpaolo S.p.A., a leading banking group in Europe and much of the world, commissioned the new Turin Headquarters to host their employees — who were scattered across ten old buildings in different parts of Turin, Italy — in one new facility that also provides large spaces for the community.

Old buildings limited them in other ways: Turin is an ancient city nestled into the western Alpine arch in far northern Italy, a strategically important area permanently occupied for more than 2,000 years. Today it is tightly packed with historically significant art galleries, restaurants, churches, palaces, opera houses, piazzas, parks, gardens, theatres, libraries, and museums.



Intesa Sanpaolo wanted to honor their home city by building an iconic new headquarters structure respectful of the history, the skyline, the community, and the environment. From a business standpoint, they needed to reduce the total amount of office space they occupied, increase employee interaction, efficiency, and effectiveness, and cut operating expenses, particularly rental and energy costs.

Pinnacle of Design

The restraints on design were as much aesthetic as physical, which led Intesa Sanpaolo to famed Italian architect Renzo Piano, who designed such iconic structures as the New York Times building in New York City, the "Shard of Glass" near London Bridge in England (the tallest skyscraper in the European Union), and the Auditorium Parco della Musica public music complex in Rome — among many, many others.

With Renzo Piano's reputation for cultural sensitivity and status in Italy, Intesa Sanpaolo's desire to create a "bioclimatic building" as their new world headquarters, and with Jacobs providing project and construction management, the company was set to make a dramatic statement in their beloved hometown.

The resulting tower, at 166 meters high, with three levels of parking, 26 floors of offices, a floor for training, and the first three stories open to the public, rises like a cool pinnacle of ice, a manmade counterpoise to the majestic snowcapped Alps rising to the north.

Emphasizing Efficiency

With a final overall reduction of nearly 50 percent in energy use and cost for lighting, heating, cooling, pumps, fans, and hot sanitary water, the Intesa Sanpaolo Tower easily qualified for LEED Platinum certification (the highest possible rank), awarded in September 2015 by the U.S. Green Building Council. The LEED rating system evaluates environmental performance from a whole-building perspective over its life cycle.







"When the best available heating and cooling technology meets a very high level of water re-use, the production of renewable energy is maximized with a focus on the comfort of building occupants, and a building is made easily accessible to people using public transport: When all these elements are perfectly mixed, it's easy to imagine the Intesa Sanapolo headquarters can be one of the most sustainable skyscrapers in the world"

Omar Jacobs, HVAC/Utilities Engineer



Most noteworthy for this project was:

- Natural ventilation systems that improve air quality
- Interior natural light and views that increase human comfort
- Acoustics that ensure privacy and facilitate concentration
- Maximum possible energy savings and performance
- Energy independence in the form of 1,650 square meters of solar panels
- Rainwater recycling for irrigation and wastewater reuse
- Ease of maintenance and cleaning

The outer cladding of transparent double-skinned glass has automated louvers that regulate solar energy absorption. Advanced-logic control systems and passive strategies reduce energy consumption, while ensuring the internal comfort.

The new tower accommodates more than 2,000 employees and guests, and features a public rooftop garden, restaurant, panoramic terrace, and a 364-seat auditorium. Located on the edge of the historical center, it is an integral part of an urban transformation taking place in the city.

A Sustainable Future

Jacobs provided project and construction management, including design coordination, information technology systems design, project controls, procurement assistance, and contract administration and supervision. We also set up and managed the LEED strategy, developed the energy model, and executed the commissioning of this beautiful and sustainable structure.

We are pleased to have been involved with this iconic building, and look forward to future work throughout Europe and the world.

Human Touch





Photographer William Busch

"The Bronx Mental Health Redevelopment Project Team was dedicated throughout the design and construction of the New Bronx Psychiatric Center campus to build operationally functional, high-quality, and sustainable facilities that would improve the residents' environment for decades to come."

Robert Jacobs, Project Executive

Bronx Mental Health Center creates healing community

ustainability does not always strictly mean the use of energy and material resources. In fact, one of the most important aspects of sustainability involves the daily interaction of people. Particularly for children and adults in need, the smallest genuinely sustaining unit is family and community.

Jacobs served as program and construction manager for an excellent example of this element of sustainability: the Bronx Mental Health Redevelopment Project in New York. With six buildings that enclose more than 400,000 square feet on a 35-acre site, the facility is designed and built like a small, nurturing town.

Village Environment

The Bronx Mental Health project facilities include a Children's Center, an Adult Building, Central Services Building, and the three Residential Village Buildings. Each is designed for maximum energy efficiency, with particular focus on indoor environmental quality for the health of at-risk children and adults. The inpatient areas of the sprawling main building are organized with the flow of a village.



The experience of being in a village over the course of the day, with a strong connection to surrounding lawns, trees, and birds, creates an embracing environment. Light is an important component of sustainable human mental health, just as daylighting is a vital component of the design philosophy of sustainable buildings.

Caring for Children

The Bronx Children's Center provides all inpatient residential, academic, recreation, and clinical services for up to 86 children in grades 1-12. Residential areas are organized into six houses, each with two sub-clusters of bedrooms around a shared living area. This model has proven to be an effective way to safely supervise children and promote social interaction in smaller groups in each house.

The children move through their daily schedule to academic, recreational, and social spaces that form a neighborhood. Outdoor recreational areas, each with their own secure and separate space, form functional parks that surround the building and can be accessed directly from the neighborhoods.

Caring for Adults

The Bronx Adult Center, in a design echo of the children's center, is arranged as a treatment mall, where inviting storefronts for patient programs are arrayed around gathering spaces along a main street illuminated largely by natural light. The design provides a healing environment that is less institutional and promotes participation among the 156 patients. A soothing color palette and durable, cost-effective finishes are inspired by natural elements.

A separate residential village includes residential space for 188 adult patients in three buildings built for environmental sensitivity, sustainability, and interaction among the mental health treatment community.





Brain Trust

The entire Bronx Mental Health Center campus is registered under LEED (Leadership in Energy and Environmental Design) and expects to earn a Silver classification level because of its impressive quantifiable results. Most significant were:

- Reduction in overall energy usage of 23.3 percent.
- More than 87 percent of on-site generated construction waste diverted from landfill.
- Nearly 30 percent of total building materials came from recycled materials.
- Approximately 25 percent of total building materials were extracted, harvested, recovered, and manufactured within 500 miles of the project site.
- Approximately 80 percent of all wood used meets Forest Stewardship Council (FSC) criteria.
- 77 percent of the roofs have a high reflectivity, reducing cooling loads and, therefore, overall energy use.

Minority, women, and community participation was strongly encouraged on the Bronx Mental Health Redevelopment project. Through outreach programs, the goal of the project team was to maximize the public involvement and benefit by creating new jobs and revenue for the surrounding community. We tracked business and workforce goals separately. The project achieved 17 percent Minority Business Enterprise and 14 percent Women's Business Enterprise participation. The project also achieved 44 percent minority, 2 percent women, and 18 percent local community workforce participation.

Jacobs is pleased to have been involved in this project that sustainably improves the life and health of countless residents of the state of New York.

Solar Twins



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Images courtesy of AGL Energy Limited

"Together, the Broken Hill and Nyngan solar plants are projected to reduce greenhouse gas emissions by more than 300,000 metric tons of CO₂ equivalent per annum. This is the same as permanently removing about 88,000 cars from the road."

Charles Jacobs, Principal Renewables Consultant



AGL Energy's new photovoltaic plants light up Australia

hen AGL Energy Limited, one of the largest electricity providers in Australia, teamed with the Australian Renewable Energy Agency and the New South Wales government to explore the solar energy potential of Southern Australia, they did not realize how much renewable power they would be providing a half-decade later.

With the recent completion of two solid-state photovoltaic (PV) plants that account for the largest solar capacity (360,000 megawatt hours each year) in Australia, nearly 400 hectares (988 acres) of solar collectors now power approximately 60,000 average homes in New South Wales every year.

As the owner's engineer since 2010, Jacobs helped assess and mitigate the technical and project delivery risks over the entire life of this development.







Together, the Nyngan and Broken Hill plants are projected to produce 360,000 megawatt hours of renewable energy annually for the next 30 years or longer. Both projects became operational last year and were officially opened at a ceremony on January 20, 2016. The more than 2 million modules of PV panels installed at the plants double Australia's solar output and prove the engineering and economic viability of large-scale solar plants on the continent.

Industrial Demand

Each PV module is installed at a fixed, non-tracking tilt of 25 degrees facing north (the opposite direction of fixed panels in the northern hemisphere). They're wired in standard arrays that connect to inverters that transform the direct current produced by the sun into alternating current compatible with the commercial power grid.

The Broken Hill area has one of the highest levels of solar radiation measured in New South Wales, making it an ideal location for a solar power plant. Known as "The Silver City," Broken Hill sits on the world's largest silver-lead-zinc mineral deposits with several active mines and a city of 19,000 people that create significant and predictable long-term demand for electrical power. An existing substation near the project site allowed for efficient connection into the national electrical grid.

The remote Nyngan Solar Plant receives strong and consistent solar radiation and is located between the regional center of Dubbo, 166 kilometers to the southeast, and a cluster of mines around Cobar (the town name is derived from the Aboriginal term for copper), 132 kilometers to the west. Together, they generate persistent demand for electrical power in the region, which is well served by an existing electrical grid to distribute the new solar energy.

Earth Friendly

The advanced cadmium telluride thin film PV modules used at the plants, produced by First Solar, convert sunlight into electricity in a process that creates no air emissions, no waste production, no water use, and has one of the smallest carbon footprints of any current PV technology.

Together, the Broken Hill and Nyngan solar plants are projected to reduce greenhouse gas emissions by more than 300,000 metric tons of CO₂ equivalent per annum. This is the same as permanently removing about 88,000 cars from the road. Particulate and heavy metal emissions will also be significantly reduced.

Illuminating a Forward Path

When the Nyngan and Broken Hill projects began, the use of solid-state technology was a novelty in the Australian electricity market. Therefore, Jacobs took great care to effectively understand, educate, and persuade a wide range of stakeholders.

We are proud to be part of these projects that have delivered 80 percent of the current installed utility-scale solar PV capacity to the people and businesses of Australia.



The recent completion of the Nyngan and Broken Hill solid-state photovoltaic plants account for the largest solar capacity (360,000 megawatt hours each year) in Australia, nearly 400 hectares (988 acres).



"Our involvement in the Nyngan and Broken Hill solar PV plants demonstrates Jacobs' commitment to the environment, community, and industry. It clearly defines the future of energy generation."

Peter

Jacobs, Principal Photovoltaic Engineer



Urban Oases



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City of Dallas, Texas, makes enduring commitment to green space

ince 1911, White Rock Lake Park has been the destination of choice for outdoor activities on the northeast side of Dallas, Texas, U.S.A. With 2,115 acres — double the area of the lake itself — that include more than nine miles of hike and bike trails, a museum and cultural center, an Audubon Society bird-watching area, wetlands, picnic areas, a dog park, great fishing, and boat ramps with kayak rentals, it's no wonder so many outdoor-lovers in downtown rush the five miles to the park after work.

Twenty years after the lake park was founded, the former publisher of a Dallas newspaper, Edwin Kiest, donated 247 acres for a park seven miles south of Dallas. Kiest Park is the largest gift of private land ever received by the city of Dallas. In 1997, Dallas' Park and Recreation Department commissioned Jacobs (then Carter-Burgess, Inc.) to create a new masterplan for Kiest Park as part of the City of Dallas' bid for the 2012 Olympics. Although the Olympic bid was not successful, a new state of the art four-field tournament softball complex was constructed at Kiest Park based on the masterplan, and a long-term relationship was launched.



"The high daily activity on the Kiest Park loop trail even when temperatures are well over 100°(F) is a testament to how important a large green space is for an urban community. Kiest Park has become a back yard for many South Dallas residents, and we are proud to be involved in upgrading the quality of life for our citizens."

Meredith Jacobs, Landscape Designer

The Right Mix

Because parks are about the confluence of natural open space and people, the best parks are designed with both in mind. With consideration of that philosophy, the masterplans of the two Dallas parks were directed by public input and conceived and executed by Jacobs.

The plans include long, looping trails that concentrate people and attention to the peaceful interior of the parks, with ample open space for playgrounds, unstructured fields, picnicking, ball fields, and appreciation for historic buildings, among many other pleasant outdoor experiences.

Engaged Communities

For the Dallas projects, ample time was spent consulting with neighbors, community leaders, city staff, and current park users to develop final design programs. Open public meetings were held multiple times, and thousands of stakeholders were invited to participate by mailed and posted notices.

At the White Rock Lake park, the community-guided master plan created by Jacobs included:

- Trail repair and conservation along an eroding shoreline (included a Wetlands Protection Development Grant)
- Improved lighting
- A fenced park for people to enjoy their free-running dogs
- New trails that connect to a larger, regional trail system

At Kiest Park, similar stakeholder guidance led to a new Jacobs masterplan that featured:

 A loop trail connected to the regional system, with parking, Americans with Disabilities Act access, and venues for public meetings












- Preserved and restored Works Progress Administration-era buildings on site
- Reconstruction of a historic creek crossing
- Addition of a softball four-plex to the existing facility
- Exploration of the feasibility for a future dog park and a skate park

A Natural Balance

Construction on the most recent piece/project was completed in 2015, significantly improving the entire Dallas parks system.

Jacobs is proud to have been a part of this truly communitywide effort to envision new outdoor space, and then to work with the Dallas Parks Department to make it a reality. We hope to be a part of the vibrant Dallas outdoor life for years to come.

elivering measurable value and excellent projects is always one of our leading priorities. We deliver technical solutions that make a difference to our clients' social, economic, and environmental goals, resulting in a solid triple bottom line. Our commitment to helping clients successfully achieve their sustainability goals is unwavering. We are equally committed to establishing sustainable practices in our own offices and contributing to the communities in which we live and work. The outcomes of the work we do with our clients reaches far beyond individual projects. Sustainability at Jacobs ties directly to our relationship-based business model, which makes it unique. We are not a 'one and done' company when it comes to client relationships, therefore challenging us to provide services to our clients that are sustainable and usable in the long-term. ¹¹

Kidus

Jacobs, Project Manager



Core Values: Tenets of Sustainable Development

We understand that the ability to sustain requires a solid foundation. It's no coincidence that our core values — People Are Our Greatest Asset, We Are Relationship-based, and Growth Is An Imperative balance one another, as do the main drivers of sustainability. This balance provides the framework for us to meet our clients' sustainable project goals, enhances our internal commitment to sustainable practices, and supports our ability to grow as a company.

People Are Our Greatest Asset

Engineers, architects, scientists, planners, builders, and more; our experts are the diverse, worldwide force that brings the best business results to our clients. We are skilled and experienced in the delivery of sustainable development, design, and related services. Ultimately, it's our people who help make our collective environment a safer, more efficient, and more sustainable place to live.

We Are Relationship-based

The way we interact with others and our surroundings is paramount. We are dedicated to building deep, lasting relationships with our clients, as well as making meaningful, long-term improvements to the sustainability of our world on behalf of those clients. This is one of the most rewarding aspects of our work, and where we make our biggest contribution to sustainability.

Growth is an Imperative

We are driven to excel and take seriously our responsibility to our investors, our clients, and our employees to achieve profitable growth. Taking sustainable actions within our company, such as reducing consumption and improving efficiency, directly results in lowering costs and increasing profitability. Having a laser focus on our own costs allows us to offer competitively priced services. Our cost consciousness is embedded in our operational standards and extends to our commitment to always look for opportunities to save money for our clients, too. "Sustainability at Jacobs is engineering excellence. It takes excellent engineering to meet the challenges involved in balancing environmental impacts vs. the need for improved access to energy, quality of life, and societal advances."

Kaushik Jacobs, Project Controls Lead — NOVA program

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Seven Principles of Sustainability

With our core values as the foundation, these seven principles illustrate the way sustainability is woven into the fabric of our company. It's What We Do.

Sustainable development is a corporate priority

Our core values exemplify our commitment to sustainable development. Our policies, programs, and practices comply with laws, regulations, and good practices of sustainable development.

We seek broad, deep capabilities and services

We seek to offer best-in-class capabilities in all aspects of sustainable development. We learn from ongoing research and study industry developments. And, we benefit from opportunities to share best practices internally and with clients.

Sustainable development is integrated into our business

We integrate appropriate sustainable development practices, including continuous performance improvement processes, into our work processes and programs.

We strive to broaden our sustainable influence

We train and educate employees on current principles, technologies, and best practices that support sustainability. We seek to advise and educate customers on their best options.



Our facilities and operations follow sustainable principles

We apply economically sound sustainable development principles to our business and seek to maximize energy efficiency, use renewable resources, and minimize waste. Our activities are undertaken with a commitment to prevent serious or irreversible impacts on our environment.

We encourage others toward sustainable development

We encourage our supply-chain partners to adopt similar sustainable principles and improvements. We foster the transfer of knowledge, support the dissemination of best practices in public forums, and provide policy advice to governments and non-governmental organizations.

We are open and transparent, responding to concerns as they arise

Transparency is critical to running an ethical business. We foster dialogue on issues of sustainable development and are responsive to concerns raised about our practices. We measure our performance, present a periodic progress report to our Board of Directors, and provide annual reporting as part of our public disclosure.

BeyondZero[®]

At Jacobs, we see safety differently. It's more than a policy manual or list of do's and don'ts. Safety is a value and a way of life, where the goal completely safeguarding our people is never compromised. We call this way of thinking BeyondZero[®].

BeyondZero goes beyond an incident- and injury-free workplace, and encourages all employees to think about the ways we can put the health and safety of our employees first in everything we do. As individuals, we are committed to making safety a personal value and taking responsibility for ensuring no one is injured on or off the job including our colleagues, families, and friends.

Our safety commitment is lived out through our employee onboarding, continual training and coaching, leadership, recognition, and programs such as StepBack, our risk assessment that helps employees take a holistic view of tasks and environments.

This year, we were proud to join with over 40 other engineering and construction firms to sponsor Safety Week 2016, a global initiative to highlight the importance of safety leadership in our industry. Jacobs employees from around the world celebrated their commitment to BeyondZero and our culture of caring.

Safety Week

At Jacobs, we're serious about safety. But we get excited about Safety Week! From May 2-6, 2016, Jacobs offices and jobsites around the world celebrated our BeyondZero culture of caring through workshops, contests, commitment poster signings, lunches, and even dance performances. Our third annual Safety Week built on the tradition's successes and extended the celebration into new territory.

Safety Week is an initiative of more than 40 national and global architecture, engineering, and construction firms comprising The Construction Industry Safety Initiative (CISI) and the Incident and Injury Free (IFF) CEO Forum. During Safety Week, our industry puts aside competitiveness to join forces with a single aim: to inspire everyone in the industry to be leaders in safety.

Each Safety Week, Jacobs designates themes for each day. This year our themes were:

- Driving
- Controlling Energy Risks
- Positive Mental Health
- Travel Security
- Innovation







"Our BeyondZero culture makes safety a way of life. It's a contagious mindset that changes the way you see safety in your everyday choices. It compels you to watch out for your family, friends, and even strangers. It's a way of life that touches the core of human nature to help others."

Christy

Jacobs, Program Manager

Teams of employees from around the world posted presentations, contests, activities, and posters for each topic on our intranet. Offices and jobsites used this material to plan celebrations, and then posted photos and videos of their celebrations so that everyone could join in. Once again, the "Safety Selfies" posted by our employees worldwide was a highlight of our festivities.

Our most exciting new topic was Positive Mental Health. Recognizing that a healthy mind is as important as a healthy body, we worked with Mind, a U.K. mental health charity, to plan activities, including a global mindfulness exercise. Job sites celebrated with presentations and stress-relieving activities like yoga, visits from puppies, and ice cream socials.

We also took the celebrations home; each day's activities included materials to help keep ourselves and our families safe at home and on the road.

Safety Week gives us the opportunity to celebrate the safety commitment we demonstrate 365 days a year.





Part A: A Culture Of Project Excellence

We are dedicated to exceeding client expectations. As sustainability becomes more embedded in the professional services industry worldwide, we continue to help our clients not only achieve their sustainable project goals, but also contribute to a more sustainable world. Following are a few examples of the ways in which we help our clients make informed decisions related to policy, measurement, and sustainability, as well as examples of how we continually work to embed sustainability in our own organization.

Case Study: Jacobs CityForm

Today, almost 4 billion people live in urban areas around the world. One in eight of those urban-dwellers live in mega-cities, which have populations that soar over 10 million people.

This growing urban population brings complex challenges. Across the globe, urban infrastructure is reaching the end of its usable life, or is outdated for today's needs. Technology is quickly changing our economies and reshaping the way we work while environmental systems are increasingly stressed. Public finance is struggling to keep up with the demand for more beautiful and sustainable cities.

These complicated issues require flexible, integrated thinking. Our clients' long-term success depends on solutions that leverage forward-thinking models, the latest technology, and creative public-private partnerships.

Rooted in integrated systems thinking, Jacobs' CityForm combines expertise across disciplines to develop dynamic, timely approaches to complex urban challenges around the globe.

City Expertise

CityForm spans a wide spectrum of expertise — it is the thoughtful integration of multiple practices.

CityDesign: Design touches life in the city every day. It influences where we live and work, how we travel, and how we connect to those around us. CityDesign is a systems-based approach to developing dynamic urban places rich in character, community, and livability.

CityBuild: Buildings are for people. The most successful buildings are those that respond to their context and improve the daily lives of their users. CityBuild emphasizes design excellence and adaptability over a signature style — it responds to the individual needs of the site, program, and city not just for today, but for tomorrow.

CityResiliency: The ability of a city to adapt to changing conditions and rebound from disasters is a hallmark of sustainability. Before an event, CityResiliency offers business continuity planning, vulnerability assessments, and all-hazard mitigations, as well as advanced IT, data center, and cybersecurity solutions. When disasters occur, we assess damages and provide rapid response if facilities are overtaken by events. CityResiliency facilitates recovery planning and supports all aspects of design, engineering, and construction to help cities rebuild stronger.



Scottish Cities Alliance Low Carbon Cities Resilience Studies Countrywide, Scotland

Though climate change presents a number of challenges, there are opportunities that offer significant benefits. The CityResiliency team developed a report focusing on the risks and economic opportunities posed by climate change in Scotland's cities of Edinburgh, Glasgow, Aberdeen, Dundee, Inverness, Perth, and Sterling. To capitalize on better growth opportunities, CityResiliency experts recommended a range of priority actions, including improved street lighting, energy efficiency retrofitting, district heat and power, hydrogen fuel initiatives, green transport, electric cars, and energy from waste programs. When implemented, these recommendations will not only improve the seven cities' resiliency, but will collectively result in an economic output worth £682 million.

CityTransport

Successful 21st century cities will all share a single characteristic: the ability to effectively move people and goods in harmony with the urban fabric. CityTransport not only provides planning and engineering expertise for all modes — transit, walking, bicycling, driving, air, and water — but solutions for combining them in dense, complex environments. We believe that these large-scale infrastructure investments can reach far beyond mobility: they are opportunities to enhance community character, improve equitable access, and integrate environmental services into single, high-impact projects.



Manchester Metrolink Manchester, England, United Kingdom

When Manchester's Metrolink system began running in 1992, it was the United Kingdom's first modern on-street rail system. In 2008, Transport for Greater Manchester hired CityTransport experts to expand the network by 60 kilometers, adding 63 new stops and increasing the carrying capacity to 70 million passengers per year. Our services were comprehensive and included all civil design, structural design, transport planning and highway design, preliminary and detailed alignment design, earthworks, constructability, staging, and operation and maintenance manual production. CityTransport professionals also inspected, assessed, and subsequently strengthened/repaired design to over 90 existing structures, and designed the new Trafford Depot.

CityWater

For centuries, access to water has been a primary requirement for a city's survival. CityWater offers comprehensive solutions for water, wastewater, and flood control across the world. We explore in-region water management and water transfer opportunities, and determine the most efficient and effective surface and groundwater solutions during front-end strategy and planning. CityWater also addresses issues such as collection, treatment, and re-use of wastewater. We understand how to optimize treatment and deliver energy-efficiencies and cost savings to our clients, reducing power costs by up to 40 percent.



Cairns Cleaner Seas Northern and Southern Wastewater Treatment Upgrades Cairns, Australia

Australia's Great Barrier Reef is one of the seven natural wonders of the world, and the only living thing on earth visible from space. However, this irreplaceable natural resource is threatened by continued urban growth along Australia's coast. The Cleaner Seas Project is a multibilion dollar effort to upgrade wastewater treatment facilities in the Cairns region; to date, it has achieved an 80 percent reduction in nutrient loading. The CityWater team upgraded the Southern Wastewater Treatment Plant (SWWTP) and Northern Wastewater Treatment Plant (NWWTP) through conversions to membrane bioreactors. The SWWTP now produces 19.5 million liters of Class A recycled water daily, and the NWWTP innovatively maximizes its brownfield site, which is constrained by height limits from the nearby Cairns International Airport.

CityEnergy

The energy sector is characterized by uncertainty: prices are volatile, climate change impacts are unknown, and resources are often entangled in complex geopolitical issues. CityEnergy strives to create a stronger sense of stability for our clients through evaluating, designing, and optimizing district energy systems, site power generation, and strategic campus energy management projects. Over the years, we have successfully planned and designed more than \$5 billion worth of energy facilities and infrastructure projects across the world.



University of Texas Energy Efficiency and Microgrid Austin, Texas, U.S.A.

Since 2000, the CityEnergy team has been working with the University of Texas at Austin to improve the university's energy efficiency and security. Achieved in part through two CityEnergy turbine projects and six years of demand-side management initiatives, the university has reduced its CO₂ emissions by 100,000 tons. Additionally, CityEnergy utility upgrade and maintenance projects have contributed to the University of Texas having the most advanced microgrid system of any campus in the United States. This is essential for energy resiliency, as microgrids are local energy grids that can disconnect from the greater regional grid and operate autonomously.

CityCulture

Once viewed as something reserved for the elite, culture in the 21st century is an inclusive, dynamic part of everyday life. CityCulture focuses on leveraging the arts, heritage, education, and community to not only enrich our quality of life, but act as a catalyst for urban development.

CityHeath

Change is a constant in today's healthcare environment, with changing demographics and reimbursement policies, nursing models, patient journeys, medical research, and emerging technologies. Our clients' programs, campuses, and facilities must adapt. As part of a large and comprehensive professional services organization, CityHealth has many resources that we can bring to bear on each project — our network of healthcare project experience becomes your network of resources.

CityTechnology

Technology is shaping our cities and changing our lives faster than any other force. CityTechnology operates on multiple levels, from designing networks to maximizing cyber security to providing a full life-cycle suite of business technology system design, engineering, procurement, installation, operations and maintenance services. We take the best in new technology and apply it creatively to our cities, improving functionality, efficiency, and quality of life.

CityEconomy

Today's economy is more fluid and interconnected than ever before. Cities once competed based on access to raw goods and markets, but now they vie for jobs and residents by offering a high quality of life and a range of urban amenities. CityEconomy provides strategies for making places more attractive for investment, reducing barriers between producers and consumers, and building fiscally sustainable foundations. We believe that adaptability, efficiency, and connectivity are the keys to thriving in the 21st century global economy.

CityStrategy

CityStrategy is about the intangibles of urban growth and development: it creates frameworks that determine goals, identifies resources, establishes plans of action, and guides the implementation of ideas. Rooted in collaborative analysis, CityStrategy helps cities strategically map the way forward.

CityGreen

Healthy natural systems are the backbone of resilient 21st century cities, requiring a layered ecosystem-based approach. CityGreen is the intersection of landscape architecture, environmental planning, and conservation. We integrate design, nature, and technology in innovative ways that not only protect natural systems, but weave them directly into the urban fabric to create memorable, environmentally healthy places.



Old Fourth Ward Park Atlanta, Georgia, U.S.A.

The City of Atlanta initially intended to address sanitary sewer overflow problems in the Old Fourth Ward neighborhood by extending the existing combined sewer overflow tunnel. Thanks to the advocacy of multiple stakeholder groups, the issues were instead addressed through the construction of a new detention pond and partial reclamation of the original creek, creating a centerpiece for a new urban park rooted in green infrastructure principles. CityGreen experts provided review services for designs prepared by a third-party engineer. After the contractor was selected, the CityGreen team provided construction management services including on-site inspections, evaluating contractor's progress, reviewing contractor's plans and documents, and completing close-out of the project. The development of the park resulted in a high-profile urban green space, and saved the city more than \$15 million in comparison to the cost of extending the tunnel.

Case Study: Kerry Environmental Footprint (2009 to present)

Kerry Group provides the largest, most innovative portfolio of taste and nutrition technologies and systems and functional ingredients and actives for the global food, beverage, and pharmaceutical industries. Its consumer foods division, Kerry Foods, is also a leading consumer foods processor and supplier in selected EU markets.

Since 2009, Jacobs has worked closely with Kerry to help monitor their environmental footprint. Kerry's environmental KPIs include greenhouse gas emissions, water, waste, compliance, and coverage of accredited Environmental Management Systems. Jacobs has assisted Kerry with the collection, validation, and reporting of this data. In doing so we have designed, maintained, and administered systems and tools to support Kerry's environmental objectives. We also provide independent assurance on Kerry's carbon footprint to the AA1000 Assurance Standard — a role that Kerry has acknowledged in its annual sustainability report.

Corporate Footprint Tools

This project required the development of a number of deliverables in easily accessible tools such as a detailed, yet user-friendly site-level Data Collection Form (DCF) that is populated with all site environmental performance data since 2008. Other outputs include presenting data at varying collection frequencies, converting data into carbon equivalents, and providing a simple, professional output report for each site. The DCF provides guidance, conversion factors, and standard operating procedures to assist sites as well as site contact details for efficient query resolution from the group. Kerry's global manufacturing operations stretch over 120 sites — the DCF is tailored for each site to show the activities (e.g. fuels and wastes) applicable to each individual operation.

A Group Tool was also designed as part of the project, allowing quick and easy assessment of how the group and regions are performing against their various commitments based on real-time data from the sites. The Group Tool allows strategic-level users to quickly view performance across the group, assess poor performing areas of the business, and therefore make strategic decisions. The tool also allows Kerry to comply with external data reporting requirements, reporting data in line with the GHG Protocol.

Program Management

Support services have included strategic support and advice, training via web-conferencing, publishing of guidance materials, maintenance of input tools, and provision of the Kerry Group helpline providing both e-mail and phone support.

The scale of the project requires a high level of engagement and a strong focus on communications. Active listening to stakeholder issues and solutions-driven ("win/win") thinking are key to balance the needs and drivers of the hundreds of people involved in the project. Various stakeholder groups include the chairman of Kerry's Sustainability Council, quality assurance directors/regional environmental managers, and site managers/engineers/ administrators. Given the geographical spread of locations a number of challenges are presented, including cultural and language barriers, as well as time zone issues, requiring clear communication, longterm planning of schedules, a risk-management approach, and flexible working. The project has been welcomed within Kerry, where its importance is recognized for the delivery of the group's environmental sustainability goals.

Sustainability Communications Support

As a key supplier to the food service industry Kerry reports environmental information to clients to demonstrate the sustainability of their operations. In some cases, Jacobs has provided support for operations supplying particular customers, including corporate footprinting, product carbon footprint, sustainable transport, manufacturing, and supply-chain data.

In addition to this focused support for key customers, we have provided technical advice and support for Kerry's submission to the Carbon Disclosure Project (CDP). CDP is a portal for companies to report their responses to the challenge of climate change including the acknowledgement of risks and opportunities, the actions taken through setting of targets, and reporting emissions. Through this channel, Kerry is able to communicate with customers and investors in one place, and is able to benchmark their efforts against other companies in their sector. Kerry has provided a response to the CDP since 2010 and has watched their disclosure score improve year by year, acknowledging the actions the business has taken to improve reporting of carbon emissions, with technical support provided by Jacobs.

CARBON: SCOPE 3



Case Study: Energy Reduction Seminar

Jacobs is taking a proactive role in engagement and problem solving for our clients worldwide in the energy realm. In early February 2016 we organized an Energy Reduction Seminar in Jubail, Saudi Arabia. The seminar was well attended, with 80 participants from 23 companies in the Jubail area.

Energy prices are increasing in the Kingdom of Saudi Arabia, creating additional interest and engagement in the seminar. The subject matter of presentations included:

- Saudi Arabia Industrial Energy Balance Outlook
- Enterprise-Wide Energy Optimization: Benefits, and How to Achieve Them
- Refinery Energy and Yield Improvements

- Petrochemicals: Benchmarking and Performance Improvements
- Utility Systems and Co-generation: Reliability, Flexibility, and Optimization
- Renewables: Solar and its Contribution to Improved Resources Utilization

The seminar reinforces our value proposition of integrated services offered by our newly opened Jubail office, where we also consistently engage our expert teams in the United Kingdom and Leiden, The Netherlands. With these skill sets, energy opportunities can be evaluated from conception to execution. Post event, our Jacobs team is following up with individual attendee organizations to identify those energy opportunities.





Case Study: Cleaner Air for Scotland

The Cleaner Air for Scotland strategy was launched at the Scottish Transport Emissions Partnership Annual Conference held in November 2015 in Edinburgh, Scotland. The national crossgovernment strategy sets out actions to reduce air pollution and health inequalities and support overall quality of life. Transport Scotland and its partner organizations are tasked with developing a National Low Emissions Framework (NLEF) that will support the delivery of the strategy — to achieve further reductions in air pollution and fulfill Scotland's legal responsibility to comply with the European Union and Scottish requirements for air quality.

Jacobs has been working with Transport Scotland since July 2015 to provide technical support in the development of NLEF to establish consistent and acceptable criteria and procedures across Scotland to address poor air quality cased by emissions from road transportation.

Jacobs outlined an approach with five key stages for NLEF that will assist selected local authorities with appraising, adopting, and implementing one or more transport-oriented air quality improvement measures. The assessment procedure will aid in:

- Clearly identifying and understanding the air quality problem for areas in Scotland
- Identifying, adopting, and implementing transport-oriented air quality improvement measures to address each problem; and
- Managing and evaluating the performance of measures

To date, we have produced three reports:

- Recommendations for a National Traffic Data Collection System
- Recommendations for an Assessment Procedure Methodology
- Recommendations for an Assessment Procedure Guidance



Case Study: Scotland's Way Ahead Project — Sustainable Low Carbon Infrastructure

Supporting the case for low carbon infrastructure is an important aspect of Jacobs' approach to addressing sustainability and climate change. A key example of how we help in that area was illustrated this year when we were commissioned by the Scotland Low Carbon Infrastructure Task Force to deliver The 'Scotland's Way Ahead' report. The Low Carbon Infrastructure Task Force - including key figures from engineering, finance, construction, academia, public sector, development, and environmental groups - found greater investment in low carbon infrastructure by both public and private sector must increase if Scotland is to meet its climate change targets.



Jacobs' role was to describe 10 infrastructure projects that would make a positive contribution to the Scottish economy based on low carbon infrastructure developments, which focused on heating, travel and transport, and energy. The full list is available here. <u>https://scotlandswayahead.org.uk</u>

The report's key findings make clear that public investment into low carbon infrastructure would bring many benefits, including:

- Eradicating fuel poverty: Almost 1 million households in Scotland are living in fuel poverty. Investing in low carbon heating systems and improving the energy efficiency of homes could cut bills and keep homes warm.
- Improving health: Investing in networks to make it easier for people to take public transport, walk, and cycle is likely to reduce the rate of many health problems, including obesity, chronic diseases caused by physical inactivity, and the effects of air pollution. It could also reduce casualties by improving road safety for pedestrians and cyclists.
- Creating jobs: A low carbon economy could support up to 60,000 jobs across Scotland by 2020. U.K.-wide, the low carbon economy has not only grown, but also proved resilient to recession, providing over a third of U.K. economic growth during 2011-2012.

An innovative aspect of this report was that the 10 projects described were made available for public scrutiny. Based on public and professional opinion a top three list of projects was announced by the Scottish Minister for Minister for Environment, Climate Change, and Land Reform at the report launch. The overall positive message of this report is now being used to support the case for public sector support for these project ideas.

Case Study: Queensferry Crossing Education Program Queensferry Crossing, near Edinburgh, Scotland, U.K., is the country's largest transportation infrastructure project in a generation. With an estimated cost of £1.325 billion to £1.35 billion, the project is centered around the construction of a bridge across the Firth of Forth. The bridge (1.7 miles/2.7 km) will be the longest three-tower cable-stayed bridge in the world. The project also includes upgrades to a (13.7 mile/22km) road corridor, including major upgrades to the connecting roads to the north and south of the new bridge.

The Jacobs Arup joint venture (JAJV) has supported Transport Scotland in all aspects of the project, from preparation of a specimen design, obtaining statutory approvals, through procurement. This combined team, known as the Employer's Delivery Team (EDT) is now on site monitoring the five-year construction program.

The JAJV also assists Transport Scotland by providing resources to deliver its extensive public outreach and education program, promoting community engagement and educational opportunities during the building of the Queensferry Crossing. This program provides high-quality contact, outreach, and educational services to local residents and visitors while emphasizing the project's purpose, investment value, and innovation in construction, as well as promoting the rewarding challenge of a career in engineering.

The EDT leads a range of outreach programs in the project's purposebuilt Contact and Education Center. The center houses an exhibition area that provides an excellent learning environment with detailed bridge models, informative panels about the Forth Replacement Crossing Project, audiovisual resources, interactive learning challenges, and spectacular panoramic views of the 19th-century Forth Bridge, the 20th-century Forth Road Bridge, and the emerging 21st-century Queensferry Crossing. The EDT represents the project, the client, and the engineering profession in high-quality engagement with schools, universities, colleges, professional organizations, and community organizations interested in the construction of the Queensferry Crossing. Since 2013, through presentations, site tours, and school visits, we have reached over 50,000 individuals and more than 12,000 school pupils. Our hope is that many of these young people have been inspired to play their part in the next chapter of Scotland's engineering success.



I Jacobs' sustainable services provide value creation opportunities for our clients in many ways; savings on resources, materials, and waste management, as well as driving innovation and providing services with low risk profiles against impending legislation and regulations. These services also differentiate us and enhance our reputation and credibility.

Syed

Jacobs, Manager – Design HSE and Sustainability

Case Study: New Initiatives in India

Some exciting new initiatives are underway in our offices in India. These programs further employee on-the-job training, develop talent and leadership skills, and strengthen client relationships.

Engineers Exchange Program — India

The Engineers Exchange program recently began with an agreement with a key client, Mangalore Chemicals and Fertilizers Limited (MCF), to mutually learn and understand more about engineering challenges on both sides of the client/Jacobs relationship.

The overall objective of the program is to allow our young engineers to be exposed to the plant operations and maintenance aspects of engineering, as well as design aspects of the MCF plant. Six of our engineers from different disciplines and offices in Mumbai went to the MCF plant for six weeks. In return, six client engineers spent six weeks in our Mumbai offices. These engineers received on-the-job training as well as classroom instruction.

Regular feedback sessions resulted in sharing lessons learned which in turn resulted in positive program modifications. Overall feedback has been very positive. All Jacobs' participants found the training effective and useful, allowing a better understanding of the nuances of design with respect to construction, operation, and maintenance. Being present during plant shut down reinforced the importance of micro planning, safety measures, and logistics.

We plan to continue this program every year with various clients to continue to build strong client relationships and develop future leaders within our organization.



Jacobs Next Network takes reins of a Project in India

A second recently launched initiative in our India offices aims to enhance development of our younger employees who are part of the Jacobs Next Network (JNN). A team of eleven JNN members are assigned leadership roles for a current project, encompassing engineering design, project management, and project control. The goal is to give more responsibility and accountability to our younger employees, with the potential to fast-track their development into leadership roles.

JNN members with 10 to 12 years of experience are selected as project leaders based on prior experience with Indian engineering, procurement, and construction management projects; demonstrated performance on earlier projects; observed leadership capability; and identified potential. One individual serves as Project Manager.

Each team member receives technical support from a mentor from their department who guides them on critical points on an "on call" basis. As

such, the mentors have limited involvement in the day to day operations of the project. The team receives tips from mentors and department managers on leading a team in their respective disciplines. They also engage in learning sessions on progress monitoring, interdisciplinary coordination, and communication.

After selection, the JNN team is briefed about the project (detail engineering and procurement assistance for a consumer and industrial products client located at Bhavnagar, the Western State of Gujarat in India) and client needs, past experiences, and lessons learned. JNN team members lead all discussions with the client, contractors, and vendors. A site visit to a similar client site/plant gives the team a firsthand look at the end result of the type of project they will be managing.

Our JNN team is extremely enthusiastic and eager to use this learning experience to put their careers on a fast-track.



Case Study: LEAN Construciton

On March 30, Jacobs sponsored the LEAN Construction Institute (LCI) of Ireland Conference, attended by more than 250 delegates. Leaders in our Glasgow Sustainable Solutions and Life Sciences business presented on the value of potential savings optimized by combining LEAN construction practices within the eco-charrette context to drive more sustainable solutions during project delivery.

LEAN is a customer-focused philosophy of working that delivers better results with less human effort, less space, less capital, and less time than traditional ways of working.

Sustainability is also a customer focused philosophy of working that delivers resource efficiency and positive economic, social, and environmental outcomes.

While LEAN plays a key role in driving more sustainable and resource efficient projects, greater value and opportunity can be derived if the

factors around LEAN construction are identified and developed within the context of an eco-charrette.

The eco-charrette approach ensures initial project workshops engage all key stakeholders and skill sets that can contribute to delivering a more sustainable project outcome. This process considers a range of key areas, including energy use and management, water use, transport, process optimization, adaptation and resilience, landscape, site planning, and more. Eco-charrette outcomes are unified sustainability, design, and construction goals for everyone to work toward.

Integrating LEAN and sustainability within the eco-charrette helps develop compatible and complimentary project solutions. Early engagement is critical, as is precise planning. With open communication and frequent collaboration, LEAN and sustainable drivers lead to improved, innovative, and inspired projects.



Case Study: Women in the Saudi Workforce

In 2008, Jacobs began operating in Saudi Arabia as Jacobs ZATE. At that time our Al Khobar office employed no females. Beginning in 2010, we redefined our workforce make-up, placing greater emphasis on local national hires and actively recruiting Saudi female staff.

Our overall recruitment/hiring goal was to align the Jacobs ZATE office with all other Jacobs' offices worldwide by implementing a solid plan to recruit and hire women. We place high value on growth, client relationships, and people, and our core values drive our business success. Embedded in these values is a deep recognition for and value of people as our greatest asset.

Today women are working in many roles in various departments, including engineering, architecture, procurement, project controls, quality, accounting, business development, and more. From the beginning, sustainability was built into the recruitment and hiring process of our female Saudi Workforce. Three key areas — social, ecological, economic — provided the foundation for the growth of an outstanding and sustainable local national female workforce.

In 2016 the Saudi government released its Vision 2030, a long-term economic plan approved by the King that is to be implemented over the next 15 years, and aims to make the Kingdom less reliant on crude oil while building a prosperous and sustainable economic future. Within this plan is a national target goal of seven percent women in the Saudi workforce by 2021.

Currently the national average of of females employed in Saudi Arabian companies is five percent. Our Jacobs average is eight percent, exceeding the Vision 2030 goal of seven percent 14 years before the 2030 target. We are committed to maintaining or exceeding a minimum of that seven percent target, and nurturing a diverse and inclusive workforce in Saudi Arabia and in all of our offices worldwide.

FEMALE HIRES





EXCEEDING VISION 2030



Jacobs' Saudi female workforce in our Saudi Arabia office averages eight percent. This exceeds the Vision 2030 goal of seven percent 14 years before the 2021 target.

Part B: Tools & Processes That Reinforce Sustainability

Jacobs Safety Information Management System

Jacobs Safety Information Management System is our multilingual, web-based system that tracks safety incidents, including environmental safety, around the globe. It supports analysis of incidents, reporting, follow-up, and sharing of lessons learned at project and office levels. All environmental incidents are recorded in the system, ensuring visibility, discipline, and a history of lessons learned.

Business Efficiency Framework

Our Business Efficiency Framework provides a structure for the implementation of sustainability within an organization. A structured context allows for more efficiency in embedding sustainability into a business or organization. The approach is based on five key steps that allow us to work with our clients to approach sustainability in a managed way, and has the ability to act as an audit tool to identify progress and gaps.

JSTEPS[®]

JSTEPS[®], Jacobs System to Ensure Project Success, demonstrates repeatable service delivery, which is instrumental in achieving ontime and on-budget project delivery. JSTEPS is a flexible delivery system developed with the specific understanding that every client has unique needs. JSTEPS can be customized to meet those client needs in every industry we serve.

C-CLEAR

Our C-CLEAR energy-management and carbon reduction tool was developed by our sustainability experts in the United Kingdom to use during project planning. C-CLEAR helps standardize our approach and focus project delivery efforts. The basic C-CLEAR method takes the project and client team through six steps: communicate, calculate, list, evaluate, agree, and review.

Eco-charrette

An eco-charrette uses the same intensive workshop setting as a typical charrette, but it focuses on the sustainable principles of the project rather than programming. Our high-performance eco-charrettes help clients identify and outline the first steps toward sustainable design, establish an all-inclusive project team, and create a vision for the project.

Building Information Modeling

Building Information Modeling (BIM) facilitates the complex processes and analyses associated with building performance and evaluation. We create models to predict building performance and prepare facility sustainability analyses using industry standards such as the United States Green Building Council's Leadership in Energy and Environmental Design. Linking BIM to analysis tools can provide immediate feedback for alternate design options that can help make a project more sustainable.

Commissioning

Our commissioning services are designed to continually improve asset management and performance and play an important role in sustainable design. Commissioning at Jacobs goes beyond industrial facilities and buildings, and encompasses maintaining system performance of any asset that contributes to increased energy efficiency over the life cycle of the asset, which furthers the sustainable goals of our clients.

The Carbon Calculator

Originally developed in 2007 at the request of the Environment Agency in the U.K., the Carbon Calculator supports sustainabilityrelated decisions for construction work. The tool calculates the embodied carbon dioxide of materials, plus CO₂ associated with transportation of those materials. Since its creation, Jacobs has continued to develop adaptations and additional uses for the Carbon Calculator so it may be used by more construction clients, contractors, and consultants for varied project needs.



JacobsValue+[™]

Our JacobsValue+ program is an intrinsic part of the way we do business. We constantly strive to develop the best, most cost-effective solutions for our clients, and JacobsValue+ supports those efforts every day. The program tracks innovative practices and ideas and then implements them in applicable situations, passing the value created (typically savings) and benefits on to our clients. The primary objective of JacobsValue+ is to deliver, measure, and demonstrate value to our clients by increasing their return on investment. In 2015, we saved or avoided more than \$9.6 billion for our clients.

JacobsSustainability+[™]

Complementing JacobsValue+ is JacobsSustainability+, a data capture tool designed by a global team of Jacobs' sustainability experts. JacobsSustainability+ captures sustainable-related information specifically within the categories of carbon savings, green buildings, and energy incentives. Originally released in 2010, use of the tool across our operations continues to increase significantly year by year.

Investment in the data captured and recorded also continues to increase, and new and ideas and suggestions for tool improvement are ongoing. In 2015 we reduced our clients' carbon footprints by approximately 21.1 million metric tons of CO₂.

Part C: Culture of Sustainability

Today, almost 4 billion people live in urban areas around the world. One in eight of those urban-dwellers live in mega-cities, which have populations that soar over 10 million people.

A Top 100 Green Design Firm

Jacobs ranked No. 6 (up from No. 7 in 2014) for overall green firms in the *Engineering News-Record* (ENR) 2015 Top 100 Green Design Firms survey. In 2015 Jacobs had 635 third party-accredited (LEED[®], BREEAM, Estidama, Green Star) employees. At the time of publication of this report we have \$203 million dollars in revenue related to sustainable projects globally. We recently submitted data for the 2016 ranking and look forward to ENR's announcement soon.

U.S. Green Building Council

Jacobs is a corporate member of the U.S. Green Building Council (USGBC). Our membership allows us to take advantage of ongoing educational opportunities, keep LEED credentials maintained for our staff, participate in discussions and knowledge-sharing, and access a variety of green-building resources.

Internally, our LEED User's Group continues to further embed sustainability into our integrated practice. The group discusses all aspects of green building and sustainability from the built and existing environment, and focuses on reducing the impact of the building design, construction, and operations industry within our own offices and for our clients. Our team supports sustainable projects worldwide and strives to maintain high consistent standards while embracing environmental and energy-efficiency goals.

Architecture 2030 Challenge

In 2010, Jacobs adopted the Architecture 2030 Challenge. Architecture 2030 is a U.S.-based nonprofit, 501(c)(3) research organization that, after much research, developed and then issued

the 2030 Challenge in January 2006. The 2030 Challenge is specifically focused on lowering building energy consumption and greenhouse gas emissions.

The challenge contends that buildings are the major source of global demand for energy and materials that create by-product greenhouse gases (GHG). Slowing the growth rate of GHG emissions and then reversing it are, therefore, key to addressing climate change and keeping global average temperature below 2° Celsius above preindustrial levels.

To further our participation and educational efforts around the 2030 Challenge, we note energy use intensity numbers on many of our project write-up sheets. The number indicates the intensity of the project as designed, as well as a baseline for the project type. This metric is used in our reporting to the American Institute of Architects (AIA) for the 2030 Challenge. We have just completed our fourth year of posting metrics to the AIA. The ultimate goal is 100 percent fossil-fuel reduction by 2030.

Energy Efficiency Tax Deductions

Jacobs has contracted with Alliant Group to pursue energy tax deductions under the U.S. Internal Revenue Code Section 179D tax incentives for energy-efficient buildings. The deduction is for energy-efficient building systems such as lighting, HVAC, or the building envelope and ranges from \$0.30 to \$1.80 per square foot. The most common deduction is \$0.60 per square foot for energyefficient light fixtures

What is It? The U.S. Energy Policy Act of 2005 (Public Law 109-58) created a tax deduction for constructing energy-efficient buildings. The expiration of this tax deduction was extended to Dec. 31, 2013, by the Emergency Economic Stabilization Act of 2008. Jacobs is currently targeting qualifying government projects placed in service between Jan. 1, 2010, and Dec. 31, 2013.

What Does it Mean for Jacobs? Jacobs, as engineer and architect of record, project manager/construction manager (PMCM), commissioning agent, and LEED consultant can claim the tax deduction under Section 179D for projects owned by federal, state, or local government if the contracting government entity assigns the deduction to Jacobs. A signed statement from the government project owner assigning the deduction to Jacobs is required. Essentially, Jacobs takes the tax deduction in lieu of the government project owner, who does not pay taxes.

This program continues to be robust as we have a number of government clients owning energy-efficient and LEED-rated building projects, including public universities and military facilities. Jacobs anticipates \$10,326,316 in tax deductions to date.

Additional Buildings-related Tools and Training

Our staff is able to take advantage of several educational programs related to sustainable buildings. Participation is not limited to our Buildings market staff, but encouraged for all employees companywide. Programs include: USGBC Continuing Education Series, BuildingGreen Suite, LEED User, GreenWizard WORKflow PRO[®], and Sefaira Concept and Sefaira for SketchUp.

Envision[™] Sustainable Infrastructure Rating System

The Envision[™] Sustainable Infrastructure Rating System is a relatively new rating system for sustainable infrastructure that provides a standardized framework of criteria and performance achievements for the classification of sustainability practices. It was developed by the Institute for Sustainable Infrastructure in partnership with the Zofnass Program at the Harvard Graduate School of Design.

Essentially a rating system for North American infrastructure, Envision[™] can be modified for use in other regions. Envision[™] includes all civil infrastructure: roads, bridges, pipelines, railways,

airports, dams, levees, landfills, water treatment systems, and more; essentially all the components that comprise the built environment. It rates energy, water, waste, transport, landscape, and information infrastructure.

We continue to expand our Envision capability and currently have six credentialed Envision Sustainability Professionals, with more staff working toward becoming credentialed. A pending light-rail project will include Envision certification, and we are currently exploring the opportunity to use Envision on a confidential industrial project.

As we work with more and more clients to get projects rated, we are excited about remaining on the forefront of this system as it continues to grow and become a more commonplace industry practice.

For more information visit: Institute for Sustainable Infrastructure www.sustainableinfrastructure.org



Print Sustainability Statement 2015

Jacobs' print program continues to evolve, with contributions in 2015 from acquisitions, organic growth, and targeted print reduction projects in the majority of our existing geographies. As per our growth forecast, we met all 2015 goals relating to equipment replacement and sustainability. We continue to identify and actively seek additional opportunities to replace outdated equipment and reduce waste, and our new print tracking/control initiatives consistently monitor and report on target goals.

In 2015 we achieved paper savings of 38 million pages, equal to 75,926 reams (183 tons and 4,555 trees saved) in production, directly impacting CO₂ emissions and effluent output. Our duplex global average per month is now 3.1 million on a monthly print volume of 17.6 million pages. Much of our paper supply is now recycled or obtained from sustainable forest and production processes.

We are currently deploying print tools that will help reduce unwanted or accidental prints. Scanning of documents to digital format and subsequent storage has also increased in 2015, leading the way toward further reduced printing and environmental impact in the future. Energy saving measures are employed on all of the managed print devices under the program, including automatic standby and switch-off, resulting in a 30 percent reduction in energy use worldwide.

There is a continued effort underway to further reduce the number of MFDs/printers deployed in our offices with a consequential impact on our environmental impact.

All new offices, project sites, and acquired companies continue to be apprised of the program and are encouraged to adopt both principles/contracts as expansion to the successes of the print initiative. This continues to feed both our value-add program and the JacobsSustainability+ initiative.

Jacobs Real Estate Services

A sustainable facility is the goal of each Jacobs office. Through system design and product specification, we are changing the way people live in our work environment. Sustainability is addressed beginning with site selection. We look for buildings that are managed sustainably and prefer second-generation office space that provides for the reuse of existing systems, already with a zoned mechanical distribution system or is currently a LEED building.

Key real estate and design decisions are made to influence occupant behaviors toward greater sustainability. For instance, dishwashers encourage less paper and plastic waste. Specific areas are designed for recycling. Buildings are selected that practice large-scale recycling to help reduce waste. Lighting and HVAC controls provide as-needed utilities. All materials selected are GREENGUARD certified, low-volatile organic compounds (VOCs) and/or recyclable. Less file storage at workstations and in the open office encourages more electronic filing, which requires less physical storage and decreases square footage requirements. In downtown settings, offices are located close to public transportation to encourage employees to ride rather than drive.

Through the decisions we make in building selections, design solutions, construction, and operation of sustainable office environments for our own business, we reinforce our philosophy and brand in the market. Working openly with local building officials, property managers, and contractors, we foster the exchange of ideas and suggestions for new sustainable and cost-effective methods and products for our projects.

The lists below note our offices already LEED CI certified, and offices currently pursuing certification at the time of publication of this report.

Certified Offices under LEED Commercial Interiors:

- Jacobs Santa Ana Office LEED CI Gold
- Jacobs Irvine Office LEED Platinum
- Jacobs Chicago Office LEED Silver
- Jacobs Dallas Office LEED Silver
- Jacobs Cambridge Office LEED
- Jacobs Denver Office LEED Platinum
- Jacobs Reading Office BREEAM (United Kingdom)

Offices pursuing LEED Commercial Interiors Certification:

- Jacobs Atlanta Office LEED Silver
- Jacobs Woodbranch (Houston) Office LEED Silver
- Jacobs Orlando Office LEED Silver
- Jacobs Arlington Office LEED Silver
- Jacobs San Francisco Office LEED Registered

Sustainable Facilities: Jacobs Offices

Many of our offices are already certified through the various systems applicable in the countries in which we live and work. For example, in the United States, offices are certified through the USGBC's LEED program. In the United Kingdom, the Building Research Establishment Environmental Assessment Methodology (BREEAM) rating system is used, and in Australia the National Australian Built Environment Rating System (NABERS) is the standard.

Each year in this space we highlight offices with outstanding sustainable elements or practices. This year we feature a sustainable build-out in our Brisbane, Australia office, a Green Star Office Interiors Registered Project, and a Green Business challenge and sustainable initiatives in our St. Louis, Missouri, U.S.A. office.



Sustainable factors incorporated in the Brisbane, Australia, office build-out include:

- Energy efficiency: The build-out was designed to achieve a 4.5 Star NABER rating for both the tenancy and the base building through various initiatives, including: energy management plan, efficient air conditioning systems, electrical sub-metering, reducing printers/copiers/faxes from 75 to 15, and efficient lighting incorporating timers, sensors, and automatic controls.
- Waste management: To improve upon and encourage good waste management practices, centralized bins are on each floor and in the kitchens (for general waste and comingled recycling), while paper, confidential, and cardboard recycling bins are in the print/copy rooms.

- **Open-plan offices:** The open plan improves communication, teamwork, access to senior staff, and creates a light and airy environment that provides the majority of staff with enhanced levels of natural light.
- Sustainable transportation: South Brisbane train station, Melbourne Street bus stops, the Cultural Centre bus hub, and the South Bank CityCat terminal are within easy walking distance. The building provides secure bicycle storage, lockers, and shower facilities.
- Green lease: A "green lease" has been signed, which commits both tenant and building manager to monitor and report on energy and water usage and waste management to achieve reduction targets.
- Over 2,000 indoor plants: Living plants create a great visual environment and a healthier, more productive working environment.
- Improved indoor air quality: CO₂ sensors on the building's air conditioning system monitor and control fresh air rates to help maintain a healthy indoor air quality and working environment. Paints, solvents, carpets, sealants, and adhesives have low chemical (PVC, VOC, and formaldehyde) content.
- Eco-preferred products: Recycled timber stairs, timber sourced from sustainable forests, other materials and components with a high content of natural and recycled materials, and minimal use of PVC.
- Water efficiency: All fittings and fixtures within the building have at least 4-Star WELS (Water Efficiency Labeling Standards) ratings and the most water-efficient dishwashers currently available in Australia are installed in all kitchens. Water management plan, water sub-metering, green cleaning, and rainwater collection and reuse for toilet flushing.

Our St. Louis, Missouri, U.S.A. office is very engaged in the St. Louis Chamber of Commerce Green Business Challenge. Through this initiative, our Jacobs office "competes" with other local businesses to create greener office environments. A Jacobs representative attends the monthly chamber meeting, where ideas are shared with other local companies and presentations encouraging green ideas are made. Points are then awarded to offices who implement these green initiatives.

Through this challenge, the Jacobs St. Louis Green Team was formed and began several initiatives around sustainability. In 2013 the St. Louis office initiated a compost collection for the kitchen area to supplement existing trash and recycle options. Space was rented at the building dock area for the cleaning staff to collect and dispose the compost until the weekly collection. To support this effort, the office began using compostable plates and cups in the kitchen area. Signs near the waste receptacles explain what items belong in which bin.

Since 2013 sustainable efforts in the office have evolved. Most recently, the Green Team rolled out a weekly office e-mail encouraging green strategies for both the household and workplace. Strategies included:

- Earth Friendly Office printing less, conserving energy at work, utilizing the office recycling
- Earth Friendly Travel alternative transportation options, efficient driving techniques
- Earth Friendly Home proper insulation, water conservation, energy efficiency
- Earth Friendly Life planting trees, buying local, reducing red meat consumption

Our St. Louis Green Team has also undertaken several smaller initiatives including a grocery bag exchange, electronics recycling day, alternative transportation maps, connecting people interested in carpooling, and a green fair with locally sponsored booths. The office goal for 2016 includes continued support of existing initiatives as well as identifying new ways to expand our green efforts both in and out of the office.



Drive Less Initiative

Our Drive Less Initiative continues to expand. The initiative focuses on improving safety, reducing and eliminating motor-vehicle incidents, reducing our miles driven, and reducing many of the negative environmental impacts associated with driving. As always, we ask all employees to evaluate alternatives to driving while on company business: conference calling, video conferencing, public transportation, carpooling, taxi, walking, or bicycling. When traveling, we recommend employees choose lodging close to their destination, and suggest they consider nearby restaurants and other services.

Drive Less plans are currently in place at many of our offices. Where plans are complete, program information is available on the local office's page on our intranet site. As plans are implemented in more of our offices, we anticipate a greater reduction in motor-vehicle incidents and further reduction of our carbon footprint.

Jacobs Foundation Scholarship

We introduced the Dr. Joseph J. Jacobs Global Scholarship Program in 2009 in memory of our founder, Dr. Joseph J. Jacobs. His vision, leadership, and commitment to our business helped make Jacobs one of the world's largest and most diverse providers of technical, professional, and construction services.

Over the past seven years, the Jacobs Engineering Foundation has awarded 140 undergraduate scholarships of \$3,000 each renewable for up to four years to students majoring in a science or technology field of study. The scholarships are valid at any accredited four-year college or university worldwide and can help defray the cost of tuition, room and board, fees, books, and supplies.

We are proud to offer this opportunity year after year, and look forward to many more applicants in years to come. The program is independently administered by Scholarship Management Services, a division of Scholarship America, a nonprofit educational support and student-aid service organization.

Jacobs College

Established in 1993, Jacobs College offers educational opportunities to our employees for targeted leadership and management development. By educating our employees and enhancing their leadership and managerial skills, we enable them to represent our company in the best way possible.

Jacobs College immerses participants in a learning atmosphere that leads to a better understanding of our core values and improves their ability to serve our clients, and to train and lead others. Through a deeper understanding of our core values, these employees perpetuate our commitment to sustainable development.

Goals of Jacobs College are to:

- Improve leadership talent;
- Share our organization's culture and success factors;
- Institutionalize success by passing on lessons learned; and
- Increase our ability to provide greater value to our clients.

Employee Charitable Giving 2015

2015 was another strong year for Jacobs' Employee Charitable Giving Program. Some examples include:

- Total donations in the United States: \$865,131.00
- Employees in 61 U.S. locations made donations
- United Kingdom donations up 4.7 percent
- United Kingdom donations total ~£37,500

acobs is committed to continuous improvement, helping solve our clients' toughest challenges, and creating a brighter future for our employees, their families, and their communities. We are dedicated to project excellence and outstanding project delivery, every day, all around the globe. Incorporating sustainability into the way we design strengthens our capabilities and helps our clients achieve outstanding project results that not only benefit their triple bottom line, but also make a difference in the world we share.

Dennis Jacobs, Project Manager ** To sustain means to stand with, to support, uphold, and maintain. As we at Jacobs seek to sustain this world we live in, our goal is to provide processes and products to our clients that enlarge the abilities and opportunities available while still sustaining growth and encouraging natural balance. **

Allen

Jacobs, Structural Engineer





AGL ENERGY LIMITED



Nyngan and Broken Hill Solar Plants

Owner's engineer; assess/mitigate technical and project delivery risks

New South Wales, Australia

- Two plants account for largest solar capacity (360,000 megawatt hours each year) in Australia; nearly 400 hectacres
- Plants power approximately 60,000 homes in New South Wales annually
- Projected to reduce greenhouse gas emissions by more than 300,000 metric tons
- Particulate and heavy metal emissions significantly reduced
- Plants projected to produce 360,000 megawatt hours of renewable energy annually for next 30 years or more

READ THE FEATURE: SOLAR TWINS



CITY COLLEGES OF CHICAGO



Malcolm X College

Start-up services, education specification development, schematic design oversight, procurement services, construction management, and move management

Chicago, Illinois, U.S.A.

- Designed to achieve LEED Silver Certification (in review with USGBC); tracking to achieve LEED Gold Certification
- 90 percent construction debris recycled rather than to landfills; approximately 4,076 tons of debris
- Low-flow toilets and faucets resulted in water use reduction of 33 percent
- 35 percent of building's electricity from renewable sources
- Large green roof accessible for faculty and student use; more than 25 percent of 43,717 square-foot roof's green spaces are intensive or extensive vegetative roofing

- Stormwater retention system: Reduce stormwater runoff
 77,000 cubic feet of water detention
 4,581 cubic feet of Irrigation storage (for reuse), produced by both rainwater and building condensate collection
 13,340 square feet of bio-infiltration
- Enhanced commissioning being performed for the whole building from pre-design through occupancy, including building envelope commissioning
- Low-emitting materials used throughout the building including paint, adhesives, flooring, and composite wood products
- Lighting:

High performance, controllable lighting system Majority of light fixtures chosen for energy efficiency Interior lighting complies with Illinois Energy Code, Chicago Energy Code and/or ASHRAE 90.1-2010 as appropriate The lighting follows design industry standards (the IESNA Lighting Handbook) and education facility best practices



CITY OF DALLAS



Baker No. 3 and new Baker Stormwater Pump Stations Project development; renovation and upgrade services

Dallas, Texas, U.S.A.

- Greenfield project site
- Design changes during construction reduce carbon emissions by 176,000 kilograms during construction phase of project
- Cost savings for client of \$225,000
- Provides flood risk management for 100-year, 24-hour storm event for the drainage area served
- Second time concrete volute pump (CVP) installed in Texas and the United States for flood control
- CVP are low maintenance, low vibration, and have long-term durability
- CVP have 85 percent to 88 percent efficiency





CITY OF DALLAS



Pavaho Stormwater Pump Station

Design and construction services

Dallas, Texas, U.S.A.

- Greenfield project site
- Provides flood risk management for 100-year, 24-hour storm event for the drainage area served
- First time concrete volute pumps (CVP) installed in Texas and the United States for flood control
- CVP are low maintenance, low vibration, and have long-term durability
- CVP have 85 percent to 88 percent efficiency
- Added paving of sump, reducing significant amount of mowing of sump, resulting in long-term maintenance reduction
- Negotiated decrease in size of the pump discharge header, reducing contractor's price by about \$200,000
- Re-sequenced factory pump testing to eliminate assembled factory witnessed test, resulting in a credit of about \$50,000
- Eliminated factory testing of the control system and converted to a field performance test, allowing early completion incentive clause to be met. Allowed pump station to be in place before a high intensity storm event, and provided credit of about \$35,000
- Because of early completion of pump station, it was available during high-intensity storm event that otherwise would likely have flooded city streets



CITY OF DALLAS /DALLAS PARKS AND RECREATION DEPARTMENT

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Kiest Park/White Rock Lake Park

Master planning

Dallas, Texas, U.S.A.

- Wetlands protection
- Development of community space
- Development of green space
- Preservation/restoration of on-site historic building

READ THE FEATURE: URBAN OASIS



DORMITORY AUTHORITY OF NEW YORK



Bronx Mental Health Redevelopment Project

Program management, construction management

Bronx, New York, U.S.A.

- Entire campus on track to receive LEED Silver Certification
- Reduction in overall energy usage of 23.3 percent
- More than 87 percent of on-site generated construction waste diverted from landfill
- Nearly 30 percent of total building materials came from recycled materials
- Approximately 25 percent of total building materials extracted, harvested, recovered, and manufactured within 500 miles of project site
- Approximately 80 percent of all wood used meets Forest Stewardship Council (FSC) criteria
- 77 percent of the roofs have a high reflectivity, reducing cooling loads, and overall energy use

READ THE FEATURE: HUMAN TOUCH



FLORIDA DEPARTMENT OF TRANSPORTATION



Florida's Turnpike Enterprise Service Plaza Renovations

Interior architecture and landscape architecture; mechanical, electrical, plumbing, civil, ITS, and fire-protection engineering; site lighting, surveying, contract administration

Various, Florida, U.S.A.

LEED elements considered during site design:

- Construction activity pollution prevention
- Alt. transportation low emitting and fuel efficient vehicle
- Alt. transportation parking capacity
- Site development: Protect or restore habitat
- Site development: Max. open space
- Stormwater design quantity control
- Stormwater design quality control
- Heat island effect non-roof
- Light pollution reduction
- Water efficient landscaping
- Innovative wastewater technology
- Water use reduction


HONG KONG ENVIRONMENTAL PROTECTION DEPARTMENT



Sludge Treatment Facilities

Contract administration, project management; specialist and expert advice on design, construction, and operational aspects of the project

Hong Kong

- Auto-combustion of sewage sludge creates constant supply of highpressure steam powerful enough to make surplus electricity capable of supporting up average of 4,000 Hong Kong families
- Relieves pressure on Hong Kong's landfill sites
- Produces all power in-house
- Exports leftover power to local grid
- No incoming main water supply
- No sewage outfall (zero discharge policy) to the 7-hectare site

READ THE FEATURE: WASTE NOT



INTESA SANPAOLO

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Intesa Sanpaolo Tower

Project and construction management, design verification, procurement assistance, testing and quality control of technical systems

Turin, Italy

- LEED Platinum Certified
- Final overall reduction of nearly 50 percent in energy use and cost for lighting, heating, cooling, pumps, fans, and hot sanitary water
- Natural ventilation systems improve air quality
- Interior natural light and views increase human comfort
- Acoustics ensure privacy and facilitate concentration
- Maximum possible energy savings and performance
- Energy independence in the form of 1,650 square meters of solar panels
- Rainwater recycling for irrigation and wastewater reuse
- Ease of maintenance and cleaning

READ THE FEATURE: TOWERING SUCCESS

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OCP S.A

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Slurry Pipeline

Project management and construction management

Daoui, Merah, El Halassa to Jorf Lasfar, Morocco

- Expected to reduce cost of transportation of phosphate slurry by 90 percent
- Expected to reduce CO₂ emissions by approximately 930,337 tons per year
- Reduce cost of transportation and maintenance in comparison with train transportation
- Provides optimized solutions for river, highway, and railway crossings
- Solution allowing high solids percentage in the slurry
- Reducing travel time and cost between Khouribga and Jorf Lasfar
- Reducing dust emissions for environmental considerations
- Optimizing water consumption of 3 million cubic meters per year through the whole process
- Improve plant's process and productivity
- Allow for great flexibility in terms of quick response to commercial constraints
- Client Satisfaction Survey Rating of 99 percent



SKANSKA USA COMMERCIAL DEVELOPMENT



101 Seaport Boulevard

Architect of record, interiors, LEED administration/sustainable design consulting

Boston, Mass., U.S.A.

- LEED Platinum Certification
- Uses 46.57 percent less energy and 36.46 percent less water than typical core and shell commercial building in the U.S.A.
- Acheived financial savings of 34 percent compared to typial new commercial building in U.S.A.
- More than 93 percent of construction waste diverted from landfill; construction materials have average recycled content of 11 percent
- Green roofing and rainwater harvesting system reduce stormwater runoff by more than 35 percent; remove 90 percent of total suspended solids from stormwater
- Rainwater harvesting system collects rainwater from building's roof drains and stores it in a 31,700 gallon tank in the basement
- Designed to use 55 percent less water than the LEED baseline
- Low-flow fixtures, including toilets, urinals, and showers, save more than 977 gallons of potable water annually compared with conventional fixtures
- Secure indoor bicycle racks and showers; underground garage with electric vehicle charging stations; adjacent to subway station
- 97 percent of the new wood installed on-site is FSC certified



SYDNEY THEATRE COMPANY



Greening the Wharf Project

Development of concept and feasibility for the building's rainwater harvesting system

Sydney, Australia

- Rainwater harvesting system installed in 2011
- Rainwater harvesting system the first to be installed on a Sydney finger wharf and first to be approved by the NSW Heritage Council
- Today 80 percent of rainwater that falls on building's roof is captured and provides non-potable water to additional facilities on two piers; estimated to have saved equivalent of seven Olympic-sized swimming pools in town water
- Built-in, first-flush system plus a rigorous maintenance cycle for water filters addresses contaminants often found in urban rainwater collection systems
- System automatically reverts to town water if there's a power outage or no rainfall for a long period of time
- Rainwater piping system painted dark grey to blend in with heritage surroundings
- Below-pier storage system disperses weight of the water over a large area and minimizes the impact on the heritage building



UNIVERSITY OF MINNESOTA

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Combined Heat and Power Plant (CHPP)

Architectural / engineering services

Minneapolis, Minnesota, U.S.A.

- Original CHPP solution, completed by another firm, targeted to reduce university's carbon footprint by an estimated 48.5 million pounds of CO₂ annually. Jacobs' right-sizing analysis resulted in further reduction of carbon footprint by 71.5 million pounds per year
- This equates to an additional 690 million pounds of CO₂ emissions prevented over the 30-year design life of the equipment
- Right-sizing analysis in projected life-cycle cost savings for the campus of more than \$40 million over 30 years
- Hazardous materials assessed
- Abatements planned



U.S. ARMY CORPS OF ENGINEERS OMAHA DISTRICT (OWNER) /HENSEL-PHELPS (DESIGN-BUILDER)

© (<a>Image: © (<a

Fort Carson Aviation Support Battalion (ASB) Hangar/Air Traffic Control Tower (ATCT)

Architecture, engineering, energy modeling, landscape architecture, interior design, lighting, and sustainable design

Fort Carson, Colorado, U.S.A.

- ASB is first LEED Platinum Certified, Net Zero Energy hangar delivered for U.S. Army
- ATCT LEED Gold Certified
- ASB: 89 percent reduction of waste to landfills, 28 percent of on-site materials were recycled, 41 percent of building materials acquired nearby
- ATCT: 78 percent of construction waste diverted from landfills, 36 percent of on-site materials recycled, 12 percent of building materials acquired nearby
- Cool roof design

- Efficient LED lights consume half the energy of standard lights
- Low-flow plumbing fixtures reduce water consumption by almost 40 percent, and reduce energy usage for domestic water heating
- Building automation system allows centralized operators to control, diagnose, and maximize system energy efficiency
- Transpired solar collectors pre-heat outside air before it runs through a heater in the winter
- Ground-mounted photovoltaic array generates a significant portion of the buildings' electricity
- Connected to district energy system that supplies chilled and hot water
- Enhanced air barrier that was tested to minimize energy loss through infiltration/exfiltration

READ THE FEATURE: ENERGY TARGET: ZERO

Sustainable Committment

Today's sustainable marketplace is fast-growing and ever-changing. Looking to the future, our opportunities to help our clients achieve effective and efficient project goals are limitless. Together, we can contribute to safe and sustainable solutions around the globe.

It's What We Do.

Tasi Jacobs, Senior Consultant Sustainability means embracing our core values. When you focus on clients, care for employees, and deliver a consistent product you create a sustainable business model. Jacobs' real strength lies in the broad diversity of our employees worldwide; whether it is a social, cultural, or technical challenge, we can deliver efficient and sustainable solutions for our clients.

Bhushan

Jacobs, Project Engineer



GRI Sustainability Reporting Guidelines Version 4.1

This report contains Standard Disclosures from the GRI Sustainability Reporting Guidelines.

GRI Criterion #	Description	Section
	Strategy & Analysis	
G4-1	Provide a statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	Introduction
G4-2	Provide a description of key impacts, risks, and opportunities.	Introduction; Our Culture
	Organizational Profile	
G4-3	Report the name of the organization.	Appendix
G4-4	Report the primary brands, products, and services.	Appendix
G4-5	Report the location of the organization's headquarters.	Appendix; www.jacobs.com
G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	Appendix
G4-7	Report the nature of ownership and legal form.	Appendix
G4-8	Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	Appendix
G4-9	Report the scale of the organization.	Appendix
G4-10	Report the total number of employees and workforce.	Appendix
G4-11	Report the percentage of total employees covered by collective bargaining agreements.	Did not report
G4-12	Describe the organization's supply chain.	www.jacobs.com

GRI Criterion #	Description	Section
G4-13	Report any signicant changes during the reporting period regarding the organization's size, structure, ownership, or its suppy chain	Appendix
	Commitments to External Initiatives	
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization.	Appendix
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	Partial report — Our Culture
G4-16	List memberships of associations (such as industry associations) and national or international advocacy organizations.	Partial report — Appendix
	Identied Material Aspects and Boundaries	
G4-17	List all entities included in the organization's consolidated financial statements or equivalent documents.	www.jacobs.com; see 10K Exhibit 21
G4-18	Explain the process for defining the report content and the Aspect Boundaries.	Did not report
G4-19	List all the material Aspects identified in the process for defining report content.	Did not report
G4-20	For each material Aspect, report the Aspect Boundary within the organization.	Did not report
G4-21	For each material Aspect, report the Aspect Boundary outside the organization	Did not report
G4-22	Report the effects of any restatements of information provided in previous reports, and the reasons for such restatements.	N/A
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	Appendix
	Stakeholder Engagement	
G4-24	Provide a list of stakeholder groups engaged by the organization.	Appendix; www.jacobs.com
G4-25	Report the basis for identification and selection of stakeholders with whom to engage.	Appendix; www.jacobs.com
G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.	Partial report — Appendix
G4-27	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns.	Did not report

GRI Criterion #	Description	Section	
Report Profile			
G4-28	Reporting period (such as scale or calendar year) for information provided.	Appendix	
G4-29	Date of most recent previous report (if any).	Appendix	
G4-30	Reporting cycle (such as annual, biennial).	Appendix; www.jacobs.com	
G4-31	Provide the contact point for questions regarding the report or its contents.	Appendix; www.jacobs.com	
G4-32	Report the "in accordance" option the organization has chosen.	Appendix	
	Commitments to External Initiatives		
G4-33	Report the organization's policy and current practice with regard to seeking external assurance for the report.	Appendix	
Governance			
G4-34	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	Appendix; www.jacobs.com	
G4-35	Report the process for delegating authority for economic, environmental, and social topics from the highest governance body to senior executives and other employees.	www.jacobs.com	
G4-36	Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental, and social topics, and whether post holders report directly to the highest governance body.	www.jacobs.com	
G4-37	Report processes for consultation between stakeholders and the highest governance body on economic, environmental, and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body.	Did not report	
G4-38	Report the composition of the highest governance body and its committees.	Appendix; www.jacobs.com	
G4-39	Report whether the Chair of the highest governance body is also an executive officer (and, if so, his or her function within the organization's management and the reasons for this arrangement).	Appendix; www.jacobs.com	
G4-40	Report the nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members.	www.jacobs.com	
G4-41	Report processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders.	Appendix; www.jacobs.com	

GRI Criterion #	Description	Section	
	Highest Governance Body's Role in Setting Purpose, Values, and Strategy		
G4-42	Report the highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	www.jacobs.com	
	Highest Governance Body's Competencies and Performance Evaluation		
G4-43	Report the measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics.	www.jacobs.com	
G4-44	Report the processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics. Report whether such evaluation is independent or not, and its frequency.	www.jacobs.com	
	Highest Governance Body's Role in Risk Management		
G4-45	Report the highest governance body's role in the identification and management of economic, environmental, and social impacts, risks, and opportunities. Include the highest governance body's role in the implementation of due diligence processes.	www.jacobs.com	
G4-46	Report the highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental, and social topics.	www.jacobs.com	
G4-47	Report the frequency of the highest governance body's review of economic, environmental, and social impacts, risks, and opportunities.	Did not report	
	Highest Governance Body's Role in Sustainability Reporting		
G4-48	Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material aspects are covered.	Appendix	
	Highest Governance Body's Role in Evaluating Economic, Environmental, and Social Performance		
G4-49	Report the process for communicating critical concerns to the highest governance body.	Did not report	
G4-50	Report the nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them.	Did not report	
Remuneration and Incentives			
G4-51	Report the remuneration policies for the highest governance body and senior executives.	Did not report	
G4-52	Report the process for determining remuneration. Report whether remuneration consultants are involved in determining remuneration and whether they are independent of management. Report any other relationships which the remuneration consultants have with the organization.	Did not report	

GRI Criterion #	Description	Section
G4-53	Report how stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable.	Did not report
G4-54	Report the ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country.	Did not report
G4-55	Report the ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country.	Did not report
	Ethics and Integrity	
G4-56	Describe the organization's values, principles, standards, and norms of behavior such as codes of conduct and codes of ethics.	Our Culture; Appendix
G4-57	Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as helplines or advice lines.	Appendix
G4-58	Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms, or hotlines.	Appendix
	Guidance for Disclosures on Management Approach	
G4-DMA	Report why the aspect is material. Report the impacts that make this aspect material. Report how the organization manages the material aspect or its impacts. Report the evaluation of the management approach.	Did not report
	Economic	
G4-EC1	Direct economic value generated and distributed.	Appendix
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	www.jacobs.com; see 10-K, p. 32
G4-EC3	Coverage of the organization's defined benefit plan obligations.	www.jacobs.com
G4-EC4	Financial assistance received from government.	Appendix
G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	Did not report
G4-EC6	Proportion of senior management hired from the local community at significant locations of operation.	Appendix
G4-EC7	Development and impact of infrastructure investments and services supported.	Partial report — Our Culture; Appendix

GRI	Index
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GRI Criterion #	Description	Section
G4-EC8	Significant indirect economic impacts, including the extent of impacts.	Did not report
G4-EC9	Proportion of spending on local suppliers at significant locations of operation.	www.jacobs.com
	Environmental	
G4-EN1	Materials used by weight or volume.	N/A
G4-EN2	Percentage of materials used that are recycled input materials.	Partial report — Our Culture
G4-EN3	Energy consumption within the organization.	Partial report — Our Culture
G4-EN4	Energy consumption outside of the organization.	Partial report — Our Culture; Project Gallery
G4-EN5	Energy intensity.	Did not report
G4-EN6	Reduction of energy consumption.	Partial report — Our Culture
G4-EN7	Reductions in energy requirements of products and services.	Did not report
G4-EN8	Total water withdrawal by source.	Did not report
G4-EN9	Water sources significantly affected by withdrawal of water.	Did not report
G4-EN10	Percentage and total volume of water recycled and reused.	Did not report
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Appendix
G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Did not report
G4-EN13	Habitats protected or restored.	Did not report
G4-EN14	Total number of ICUN red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	Did not report
G4-EN15	Direct greenhouse gas (GHG) emissions (scope 1).	Did not report
G4-EN16	Energy indirect greenhouse gas (GHG) emissions (scope 2).	Did not report

GRI Criterion #	Description	Section
G4-EN17	Other indirect greenhouse gas (GHG) emissions (scope 3).	Did not report
G4-EN18	Greenhouse gas (GHG) emissions intensity.	Did not report
G4-EN19	Reduction of greenhouse gas (GHG) emissions.	Did not report
G4-EN20	Emissions of ozone-depleting substances (ODS).	Did not report
G4-EN21	$No_{X_{i}} So_{X}$, and other significant air emissions.	Did not report
G4-EN22	Total water discharge by quality and destination.	Did not report
G4-EN23	Total weight of waste by type and disposal method.	Did not report
G4-EN24	Total number and volume of significant spills.	Did not report
G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention ² Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	Did not report
G4-EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff.	Did not report
G4-EN27	Extent of impact mitigation of environmental impacts of products and services.	Did not report
G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category.	N/A
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non- compliance with environmental laws and regulations.	Did not report
G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce.	Appendix
G4-EN31	Total environmental protection expenditures and investments by type.	Did not report
G4-EN32	Percentage of new suppliers that were screened using environmental criteria.	Appendix; www.jacobs.com
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken.	Did not report
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms.	Did not report

GRI Criterion #	Description	Section
	Social	
	Labor Practices and Decent Work	
G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender, and region.	Partial report — Appendix
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation.	Did not report
G4-LA3	Return to work and retention rates after parental leave, by gender.	Did not report
G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements.	Did not report
G4-LA5	Percentage of total workforce represented in formal joint management — worker health and safety committees that help monitor and advise on occupational health and safety programs.	www.jacobs.com
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender.	Did not report
G4-LA7	Workers with high incidence or high risk of diseases related to their occupation.	Did not report
G4-LA8	Health and safety topics covered in formal agreements with trade unions.	Did not report
G4-LA9	Average hours of training per year per employee by gender, and by employee category.	Partial report — Appendix
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	Did not report
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category.	Partial report — Appendix; www.jacobs.com
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	Partial report — Appendix
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	Did not report
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria.	Appendix; www.jacobs.com
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken.	Appendix; www.jacobs.com
G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms.	Did not report

GRI Criterion #	Description	Section
	Human Rights	
G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening.	www.jacobs.com
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Appendix
G4-HR3	Total number of incidents of discrimination and corrective actions taken.	Did not report
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights.	www.jacobs.com
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	www.jacobs.com
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	www.jacobs.com
G4-HR7	Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations.	Appendix
G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken.	Did not report
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments.	Appendix; www.jacobs.com
G4-HR10	Percentage of new suppliers that were screened using human rights criteria.	Appendix; www.jacobs.com
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken.	Did not report
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms.	Did not report
Society		
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	Did not report
G4-SO2	Operations with significant actual and potential negative impacts on local communities.	Did not report
G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified.	Did not report
G4-SO4	Communication and training on anti-corruption policies and procedures.	Appendix

GRI Criterion #	Description	Section	
G4-SO5	Confirmed incidents of corruption and actions taken.	Did not report	
G4-SO6	Total value of political contributions by country and recipient/beneficiary.	Partial report — Appendix	
G4-S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	Did not report	
G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non- compliance with laws and regulations.	Did not report	
G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society.	www.jacobs.com	
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken.	Did not report	
G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms.	Did not report	
	Product Responsibility		
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement.	Our Culture; www.jacobs.com	
G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes.	Did not report	
G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements.	N/A	
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	N/A	
G4-PR5	Results of surveys measuring customer satisfaction.	Appendix	
G4-PR6	Sale of banned or disputed products.	Not applicable	
G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes.	0	
G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	Did not report	
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	Did not report	



ORGANIZATIONAL PROFILE

Jacobs is one of the world's largest and most diverse providers of technical, professional, and construction services, including all aspects of architecture, engineering, and construction, operations and maintenance, as well as scientific and specialty consulting. We serve a broad range of companies and organizations, including industrial, commercial, and government clients across multiple markets and geographies.

Our global network includes more than 200 offices in more than 30 countries. We have operations in North America, South America, Europe, the Middle East, India, Australia, Africa, and Asia. We were founded in 1947 and our headquarters is in Pasadena, California. At the end of April 2016, we had 57,725 employees, including contract/agency provided labor and craft.



Jacobs' common stock has been publicly held since 1970 and is currently listed on the New York Stock Exchange under the trading symbol JEC. In 2015 we had revenues of \$12.1 billion, adjusted net earnings of \$410.9 million, backlog of \$18.8 billion, cash of nearly \$460.9 million, and a diluted EPS of \$2.48.

For more information about Jacobs' sustainable practices or to comment on this report, please contact us at: contactus@jacobs.com.

Countries Where We Have a Presence

Australia	Indonesia	Puerto Rico
Belgium	Ireland	Saudi Arabia
Brazil	Italy	Scotland
Canada	Malaysia	Singapore
Chile	Mexico	South Africa
China	Могоссо	Spain
England	Netherlands	Sweden
Finland	New Zealand	Switzerland
France	Northern Ireland	United Arab
Germany	Oman	United State
Hong Kong	Peru	America
India	Philippines	Wales

Food, Beverage, Forest &

Consumer Products

Mining & Minerals

Mission-Critical &

Oil & Gas

High-Tech Facilities

Arabia nd ore Africa en rland Arab Emirates States of a



Market Sectors

Aerospace & Defense Automotive & Industrial Buildings Chemicals Environmental. Water & Wastewater

Pharmaceuticals & Biotechnology **Power & Utilities Refining & Petrochemical** Telecommunications Transportation

Lines of Business

Aerospace & Technology **Buildings & Infrastructure** Industrial Petroleum & Chemicals

Appendix

SUSTAINABLE SERVICES

ЕРСМ	Corporate Responsibility	Carbon Management	Public Sector	Climate Change
BREEAM / LEED	Verification	Carbon footprinting and	Strategy and policy	Reporting
CEEQUAL	Auditing	accounting	SD assessments	Design impacts on
Master planning	Management systems	Sustainable energy auditing Carbon strategy development Low- and zero-carbon	Environmental Impact studies Reporting and measurement Procurement Community/stakeholder consultation	developments Planning
Sustainability assessments	Waste minimization			
Life cycle reviews				Risk assessments
Energy efficiencies		CLIC contification and		Adaptation advice Scenario planning
Materials selection (incl. carbon)		compliance		
Sustainable design				
Commissioning				

REPORT PARAMETERS

Reporting Period/Most Recent Report/Report Cycle/Point of Contact

In this *Sustainability Report* we use the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines. We report only on the G.4 indicators that were relevant and measurable for our business operations in 2015. The report is inclusive of data from Jacobs and all related entities, with no limitations. See our investor relations section at www.jacobs.com for more information. Prior to our 2016 report, our most recent report was published in 2015. We publish a Sustainability Report annually. Content for this report was defined based on GRI requirements and the needs of our stakeholders. The Report is reviewed by our Vice President of Global Communications and our CEO before publication. For more information about Jacobs and this report please contact: contactus@jacobs.com.

Report Scope & Boundaries

Jacobs stakeholders expected to use this report include clients and potential clients, shareholders, and employees. Topics reported on are selected and prioritized to relate and reinforce Jacobs' view on sustainability. These include feature stories on projects and clients, a project gallery with specific details on sustainable elements, tools, and processes used by the Company, and examples of internal application of sustainable methodologies from LEED certification of offices to charitable giving campaigns and more.

Any material economic, environmental, and social impacts of the organization not addressed herein will be evaluated and possibly covered in future reports in the coming year or two.

Data Measurement Techniques & the Basis of Calculations

Jacobs' data measurement techniques and basis of calculations vary according to the entity to which we report. We adhere to all rules and regulations for the various

agencies and governing bodies to which we report on topics, including safety, earnings, and more. Additional data and calculation basis vary by specific tool, science, or methodology used, which is dependent on the client, the project, and the project requirements.

Assurance

This report has not been audited by a third party. No external assurance has been sought.

BUSINESS CONDUCT & ETHICS

Corporate Policy Concerning Business Conduct, Integrity, & Ethics

Our founder, Joseph J. Jacobs, once wrote that honesty has remained a constant driving force of our success. He believed our principles of business conduct sustain our company culture and are recognized and awarded by our clients and by the market system. As he wrote in our 50th anniversary booklet, "Our high standards provide the structure that will bridge past success with a bright future."

From the day they are hired, Jacobs employees are given the tools they need to understand and adhere to our ethical standards. New employee orientation includes foundation training for all employees on our Business Code of Conduct. Each year our staff employees are required to review the Business Code of Conduct and reaffirm their understanding. Additional supplemental training is required to be completed every other year by our supervisors, managers, and other employees depending on their role in the company.

See our Business Conduct Policy on our Investor page, under the Corporate Governance tab, at www.jacobs.com for more information.

Appendix

Training

Jacobs established a Global Ethics and Compliance training initiative program to further help employees understand the legal and ethical standards that must be upheld. Our organizationwide program is designed to provide a strong learning foundation and supplemental training, such as those conducted through regional training efforts, at our Annual Business Meeting, and through Jacobs College. Since 2005, Jacobs College has offered senior leader-led training with modules dedicated to ethics. Training is highly interactive, leveraging actual company scenarios.

Due to our many geographic locations around the world, the majority of our training is delivered through online learning. The training is enhanced with in-person learning events.

The following concepts are woven throughout all online compliance courses:

- Observance of moral and ethical standards of society and fair dealing
- Reporting and resolving suspected irregularities
- Corporate governance
- Jacobs Integrity Hotline

Jacobs Integrity Hotline is a worldwide reporting line answered 24 hours a day, seven days a week by a professional independent contractor. Calls are confidential and can be anonymous.

We take ethics very seriously. Violation of company policies have severe consequences, including termination of employment.

All Jacobs employees and business partners are expected to be guided by the following principles as they carry out their responsibilities:

- Loyalty
- Compliance with applicable laws
- Observance of ethical standards
- Conflict of interest
- Communication

In addition to the Business Code of Conduct Reaffirmation, Jacobs offers additional ethics and compliance courses, including:

- Procurement integrity
- Information security
- Insider trading
- Conflicts of interest
- Global bribery
- Corruption awareness

Jacobs and its affiliates and subsidiaries have always followed the highest principles of business conduct, integrity, and ethics. That is the reputation we now enjoy. We intend to keep it. Our corporate policy concerning business conduct, integrity, and ethics for the United States and internationally is available on our public website: www.jacobs.com.

PUBLIC FILINGS

SEC Regulations

Jacobs is a publicly traded company on the New York Stock Exchange (NYSE: JEC), and we are regulated by the U.S. Securities and Exchange Commission (SEC). For additional information about Jacobs, please see our *Form 10-K* and other filings available on the Investor section of our public website: www.jacobs.com.

ORGANIZATIONAL PROFILE

Change in company leadership:

Steven J. Demetriou joined Jacobs as President and Chief Executive Officer in August 2015, and became Chairman of the Board in July 2016.

Mr. Demetriou brings more than 30 years of global business leadership experience to Jacobs, including 14 years in the role of Chief Executive Officer.

Significant Changes in Size, Structure, & Ownership

Significant acquisitions for the latter half of 2015 and early 2016:

- In April 2016, Jacobs acquired The Van Dyke Technology Group Inc. (Van Dyke), a 180-person cybersecurity firm based in Maryland that specializes in identity and access management, threat mitigation, and other cybersecurity solutions for enterprise networks and cloud-based IT environments.
- In December, 2015, Jacobs completed its acquisition of J.L. Patterson & Associates (JLP), headquartered in Orange, California.

JLP is a consulting and professional services engineering firm specializing in rail planning, environmental permitting, design and construction management. It provides services to numerous public transit agencies and is a major provider of professional consulting services to Class 1 railroads across the U.S. Jacqueline Patterson, president of JLP, founded the company in 1990 as a certified Women Business Enterprise/Disadvantaged Business Enterprise.

The acquisition significantly enhances Jacobs' overall rail services capability, positioning the company in the top tier of rail professional service providers in North America.

There has been one change to our Board of Directors in FY2015: Dawne S. Hickton, President and Chief Executive Officer of RTI International Metals Inc., was elected to the Board in summer of 2015.

GOVERNANCE, COMMITMENTS, & ENGAGEMENTS

Membership in Associations & Advocacy Organizations

Jacobs is involved with, holds membership in, or has employees who hold membership in many associations and advocacy groups worldwide. These include the American Institute of Architects, the American Public Works Association, the International District Energy Association, the Society of American Military Engineers, the National Society of Professional Engineers, the Urban Land Institute, and more. The specific number/listing is too extensive for this report. We encourage employees to participate in organizations that provide continuing education, industry insight, the opportunity to participate in community, and more.

List of Stakeholder Groups Engaged by the Organization

At Jacobs we are committed to being open and transparent for our stakeholders. Our stakeholders are, inclusively, our clients, employees, shareholders, subcontractors, suppliers, business associates, the communities where we work and live, and society at large.

Stakeholder Engagement

We engage in open and transparent communication with our stakeholders in various ways at many levels every day. As required by the GRI guidelines, the following information details the ways in which we engage with specific stakeholder groups. The basic tenets of our core values — people, relationships, growth — provide the structure for all of our engagements.

Our Clients — We are a relationship-based company. Our Client Expectation and Client Satisfaction Surveys are a formal process that allow us to go beyond the traditional expectations of safety, cost, and schedule, to truly understand our clients' expectations. The survey process creates a unique venue and opportunity for our employees to align with clients on sustainability issues, and to determine a course of action. We measure ourselves against meeting client expectations and pinpoint where we can improve. Our resulting improvements are not just words, but suggestions put into action. Over the years our Client Satisfaction Survey scores have increased, and, in 2015 remained at a record high of 92 percent. We are proud of this accomplishment and driven to continue to improve these scores year after year.

Our Investors — We are committed to transparency, and communicate regularly with our shareholders and other contacts in the world financial arena. As a publicly traded company on the New York Stock Exchange, we are regulated by the U.S. Securities and Exchange Commission (SEC). More information on our responsibilities to our shareholders can be found on www.jacobs.com.

Our Employees — Due to the size and geographic diversity of our company, it is vital that we actively engage with our employees. We do this through a variety of methods, from face-to-face interaction, to a robust intranet site, to training programs and all-employee e-mails.

Examples of Specific Activities

Our Annual Business Meeting brings together a mix of our top leaders at the beginning of each fiscal year. Fiscal results for the previous year and goals for the next 18 months are reviewed.

Creation of a CEO Annual Video, which is distributed throughout the company.

We have established and facilitate four employee inclusion networks aimed at employee development and collaboration. These are the Women's Development Network (designed for professional women), the Futures Network (designed for employees with less than five years of work experience), and the Next Network (designed for employees between six and 10 years of work experience), and the Inclusion Network (designed for employees leading inclusion efforts within their respective regions). The Jacobs Inclusion Network focuses on understanding the many facets of inclusion and the opportunities it presents to our business. We do more than respect and value diverse perspectives, we seek them out and embrace them, fostering a highly collaborative environment where people are empowered to contribute. They bring fresh approaches to solving problems and the innovation we need to prosper in a global market, benefiting all Jacobs stakeholders — be they employees, customers, or shareholders.

Through these networks we sponsor skills development through local meetings, conference calls, video conferences, and information-sharing and have ongoing engagement from greater than 6000 employees across Jacobs.

We also offer self-paced development modules and resources through our "Grow Your Own Skills" program that are aligned to competencies critical within Jacobs.

Training: Average annual hours of training per employee = 18

Jacobs designed and initiated implementation of upgrades to our Learning Management System to advance our online learning offerings, and improve our management and tracking of employee training. In the meantime, through surveying of each operating unit we estimate that employees complete at least an average of 18 hours per year of formal training internal to Jacobs.

In addition to this formal training, we sponsor a number of conferences that are in large part designed as learning events, with global teams established well in advance. Thus we add development opportunity in the planning and conduct of the sessions offered to engage all participants. In FY2015 those conferences included:

There were 9, 613 hours of instruction for attendees of our two main 2015 leadership and development events in 2015. Our Annual Business meeting brings together senior leaders representing 21 countries, while Jacobs Future Weekends bring together early career professionals from 19 countries.

We follow the laws, rules, and regulations of every place and country in which we work. Our core values reinforce our standards of ethical, humane treatment of all people. We take action every day to ensure a safe, inclusive, and engaging work environment for our employees, our clients, and our stakeholders. Therefore, we have developed programs and processes that help us track and improve our policies on diversity, safety, the environment, and human rights wherever we work around the globe.

Human Rights & Labor Laws

All employees are expected to comply with all laws, rules, and regulations of all U.S. and non-U.S. governmental entities, and other private and public regulatory agencies. Adhering to human rights and labor laws is of great importance to us and we expect the companies we associate with to do the same.

Human rights and labor are the most prominent prequalification criteria of our partner and subcontractor evaluation and selection process. We do not work with any company that does not respect the United Nations' Universal Declaration of Human Rights. All partners and subcontractors must also adhere to the international labor conditions defined by the International Labor Organization (ILO). We screen 100 percent of prospective partner and subcontractor companies before entering into any contract. This includes a review of ethics, human rights regulations, labor conditions, safety standards, quality measures, environmental policy, cost, and schedule. If a company does not qualify on any of these terms, our policy deems we do not work with that company.

Our prequalification process for vendors and suppliers is the same as the process for partners and subcontractors. For qualified suppliers with whom we enter into a signed contract, a monitoring system goes into effect.

Our employees are trained in all applicable laws, and our inspectors and project personnel serve as our "ears on the ground," to monitor all aspects of the vendor's initial qualification.

Training on human rights in FY14 totaled more than 28,283 hours and included nearly 29,500 people.

Code of Conduct at Jacobs

- Code of Conduct this course is most encompassing around Human Rights issues — especially proper business conduct. Last year we had approximately 45,000 employees take the 45 minute course which resulted in 33,750 hours of training.
- Harassment Prevention from a global context (excluding Australia), we had 5,157 supervisors complete the 45 minute version of the course (3,868 training hours) and 435 supervisors who were required to take a two-hour version of the course (870 training hours).
- Conflicts of Interest/Privacy/Security we had 467 employees complete this 45 minute course for a total of 350 hours.
- Total hours of the above courses is 38,838 hours.

Diversity

As a global industry leader, Jacobs employs a dynamic mix of people to create the strongest company possible. Jacobs' policy forbids discrimination in employment on the basis of age, culture, disability, education, gender, region of national origin, sexual orientation, physical appearance, race, or religion. We are an inclusive and

diverse company with people of all different backgrounds, experiences, cultures, styles, and talents. We enter into partnerships with various minority and women's professional groups, including the Society of Women Engineers, the National Society of Black Engineers, the Society of Hispanic Professional Engineers, and the National Action Council for Minorities in Engineering.

Diversity is a key factor in the way we interact with our vendors, and is a required element in our procurement decision matrix. Our Jacobs Global Supplier Database (JGSD) of suppliers and contractors serves as a repository for all data and provides the information to manage our ongoing relationship development with small and diverse companies.

Security

Our global security function has been integrated into the business to provide solution-focused advice and capability to grow and protect the business and our people. Security is managed through our Global Security Management System and is assessed for compliance in the company's audit program.

Before starting new projects or entering new countries, Jacobs conducts risk assessments covering security and social risks associated with our business activities. The identified risks drive potential security and community liaison staffing, budgeting, and specific mitigation measures. Those measures also include comprehensive crisis preparedness and response capabilities to be used in various event scenarios.

Our commitment is to manage security activities in a responsible and ethical manner in accordance with the best practices associated with the Voluntary Principles on Security and Human Rights. Due to identified risk and regulatory standards, in some Jacobs operating countries this means accepting protection from host country military, army, police, gendarmerie, or paramilitary. Jacobs' provisions when working with police or armies requires for any security arrangements to be approved and accepted. They must foster human rights and be consistent with international standards of law enforcement.

In engaging with any third-party security resources to provide protection, the following principles apply:

- Respect international laws and those of the host country, in spirit and letter.
- Ensure that all staff and contractors apply the highest moral and ethical standards, particularly to human rights as documented in the Voluntary Principles on Security and Human Rights and the Oil & Gas Producers (OGP) Guide to Firearms and the use of force.

We endeavor to ensure that the security forces working with us are properly trained and operate within the framework of our principles.

Any report of a human rights and/or security violation will be promptly investigated. Our employee resources, such as the Code of Conduct and Jacobs Integrity Hotline help ensure human rights issues are identified and addressed.

Appendix

Anti-corruption, Ethics, and Business Integrity

- Business Code of Conduct with Online Anti-Corruption Policy Training: 29,474 employees completed in FY14, which represents 79 percent of our staff
- Global Anti-Corruption: new course rollout scheduled in FY14 for 4,000 people
- Jacobs College, Ethics: 85 leaders at 2.5 hours per course = 212.5 hours
- Annual Business Meeting, Ethics with the Chairman of the Board: 268 senior leaders at 45 minutes = 201 hours
- Jacobs Future Network Weekends, Project Ethics: 280 early career professional employees at 90 minutes = 420 hours

ECONOMIC

Economic Performance

For Economic Value Generated and Distributed, Including Revenues, Operating Costs, Employee Compensation, Donations and Other Community Investments, Retained Earnings, and Payments to Capital Providers and Governments, please see our Annual Report (Form 10-K) at www.jacobs.com.

Market Presence

Procedures for Local Hiring & Proportion of Senior Management Hired from the Local Community at Significant Locations of Operation

While laws on discrimination may vary from country to country, it is the policy of the company that there shall be no discrimination in employment on the basis of age, culture, disability, education, gender, regional or national origin, sexual orientation, physical appearance, race, or religion in any of its offices worldwide. The company is committed to ensuring fair employment, including equal treatment in hiring, promotion, training, compensation, termination, and disciplinary action. In compliance with U.S. law, the company also maintains a formal affirmative action program for all of its U.S. operations. Jacobs places a high value on global diversity and has created a global recruitment campaign to encourage such diversity.

With fair employment and compliance with country and local law in mind, it is common practice to give preference to candidates in close proximity to the job location, particularly when resources may not be allocated or available for relocating the candidate to the job location.

Indirect Economic Impacts

Development and Impact of Infrastructure Investments and Services Provided Primarily for Public Benefit Through Commercial, In-Kind, or Pro Bono Engagement.

Jacobs' infrastructure business includes: transportation and rail, aviation, water infrastructure, and telecommunications services delivered worldwide. We have full life-cycle capabilities, including planning, environmental, design, consulting, engineering, design-build, construction, and program management services.

TOTAL WORKFORCE BY EMPLOYMENT TYPE, CONTRACT, AND REGION Total 57,725 including Contract/Agency provided labor and Craft as of April 2016

CONTINENT	STAFF Incl. contract/agency	CRAFT/SKILLED Incl. contract/agency
North America	22,652	10,055
South America	511	N/A
Europe	10,764	1,332
Asia (includes Middle East)	8,594	N/A
Australia (includes New Zealand)	3,437	N/A
Africa	380	N/A
Antarctica	N/A	N/A
Totals	46,338	11,387

TOTAL WORKFORCE BY GENDER & AGE DISTRIBUTION (AS OF APRIL 2016)

	DEMOGRAPHIC	WORKFORCE
Gender	Female	19.3%
	Male	80.7%
Age Groups	Younger than 30 years old	13.9%
	30-50 years old	49.5%
	Older than 50 years old	32.5%
	Age not provided/incorrect	4.1%

Financial Assistance Received from Government:

We disclose in Note 11 of our audited financial statements included in the 10-K (page F-36), the amounts owed to us by the U.S. Federal government for services we provide to various entities/agencies in the normal course of our work. We also disclose the percentage of our revenues attributable to the U.S. government (page F-39). We generally do not receive any of the activities mentioned in the bullets above, except award fees in some cases if milestones for schedule or performance are met. There are some U.S. tax credits the company receives related to taxes it pays in other countries for income earned in those other countries.

Appendix

SOCIAL PERFORMANCE

Labor Practices and Decent Work

Voluntary Turnover Rate for the 2015 Fiscal Year was 11.47 percent globally.

Percentage of Employees Covered by Collective Bargaining Agreements

Approximately 6,236 employees are covered by a collective bargaining agreement. This includes contract/agency craft personnel.

SOCIAL PERFORMANCE: PRODUCT RESPONSIBILITY

Product Responsibility, Programs for Adherence to Laws, Standards, & Voluntary Codes Related to Marketing Communications, Including Advertising, Promotion, & Sponsorship

Jacobs is an international provider of professional services. The core of our business model is our relationship-based philosophy. We do very limited advertising and promotion. When we do engage in marketing activities, we adhere to the strict standards in our Business Code of Conduct. It is Jacobs' policy that any marketing materials featuring our clients are fully reviewed and approved by the client. Usage rights of all materials are always verified and obtained.

ENVIRONMENTAL

Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.

Jacobs Engineering Group Inc. and its subsidiaries form an organization comprised of approximately 125 operating companies and affiliates. Jacobs is a full service Engineering, procurement, and construction services company with more than 300 offices globally. Office locations vary based on geography and client base, therefore it is difficult to list any biodiversity and protected area species. GRI may contact Jacobs for additional site specific information on an 'as needed' basis.

Significant environmental impacts of transporting products and other goods and materials for the organization's operations and transporting members of the workforce

As a services company, Jacobs worldwide uses JacobsSustainability+ as a tracking tool. At the project level JacobsSustainability+ is a practice for aggregating and reporting the environmental and sustainability benefits generated on projects. Environmental impacts of transporting construction materials, equipment, and project team members can also be documented.

To access the 2016 Sustainability Report

QRVQNIfaWebs.sitemyisiistainability

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Vinod Jacobs, Civil Engineer