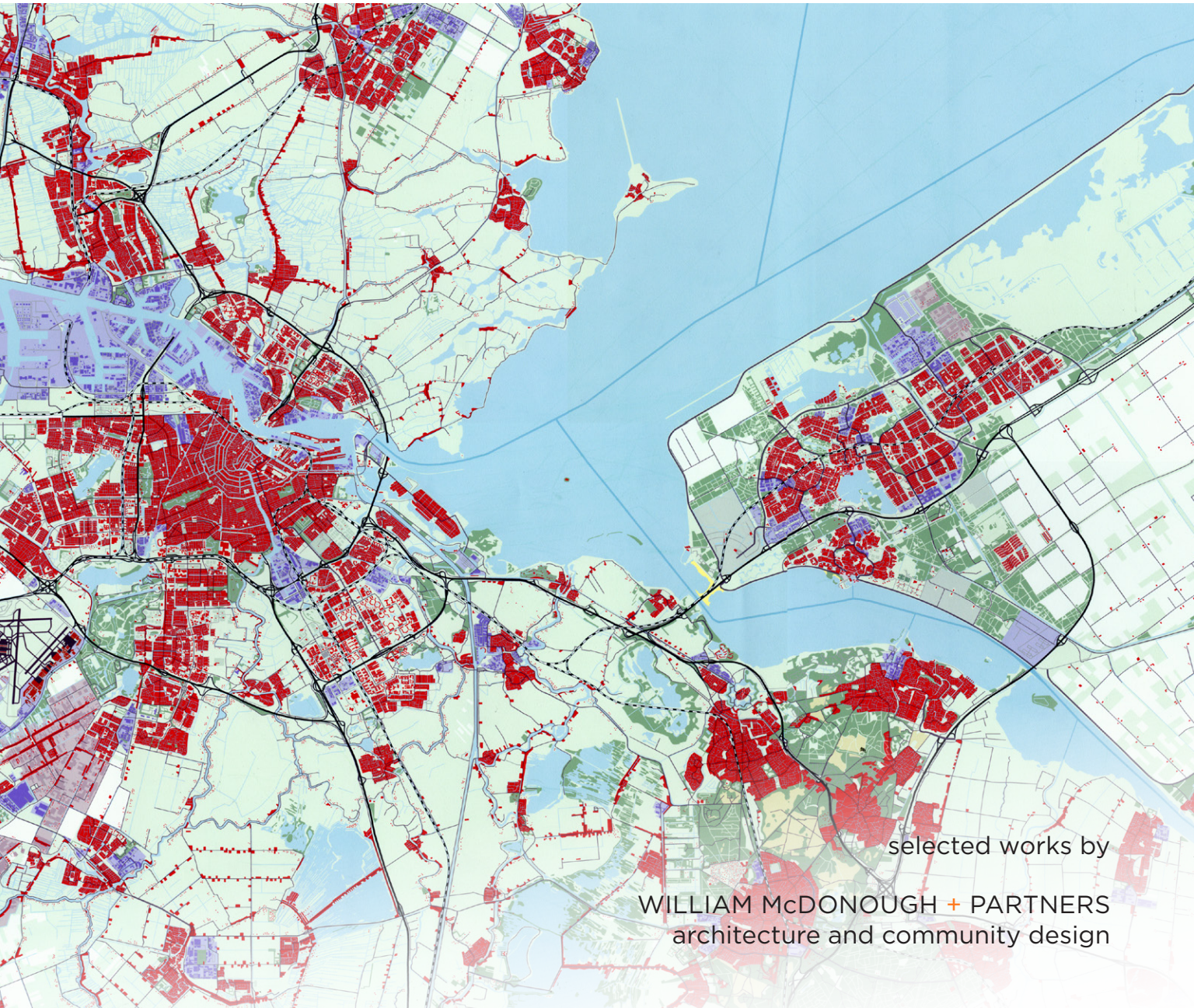
TOWARD A CRADLE TO CRADLE® FUTURE

BEYOND SUSTAINABILITY—DESIGN FOR ABUNDANCE



selected works by

WILLIAM McDONOUGH + PARTNERS
architecture and community design

Our goal is a delightfully diverse, safe, healthy, and just world, with clean air, water, soil and power – economically, equitably, ecologically and elegantly enjoyed.[1]

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FIRM INTRODUCTION

William McDonough + Partners (WM+P) executes a diverse international array of projects from our studio in Charlottesville, Virginia. Our Cradle to Cradle® – inspired buildings and communities embody enduring standards of design quality and economic, ecological and social responsibility. We practice a positive, principled approach to design that draws inspiration from living systems and processes. At its heart, this unique approach celebrates the abundance of nature.

Founded by William McDonough in New York in 1981, the practice was relocated to Charlottesville, Virginia in 1994, when McDonough became Dean of the School of Architecture at the University of Virginia. The firm's partners collaborate closely with McDonough to bring his design concepts into reality. In the process, we have created pioneering architecture and community designs that consider the long-term consequences of design.

Among the practice's diverse achievements are several recognized landmarks of the sustainability movement: the Herman Miller "GreenHouse" Factory and Offices; Gap, Inc.'s Corporate Campus (now home to YouTube); the Adam Joseph Lewis Center for Environmental Studies at Oberlin College; the Ford Rouge Revitalization and Sustainability Base: NASA's first space station on earth.

< YOUTUBE HEADQUARTERS (current)
GAP CORPORATE CAMPUS (former)
San Bruno, California | Completed 1997

OUR DESIGN APPROACH

William McDonough + Partners (WM+P) is a collaborative, principles-driven design firm that sees the unique characteristics of each place and project as a source of inspiration and innovation. The foundational principles we bring to each project derive from our vision of the future: Our goal is a delightfully diverse, safe, healthy and just world, with clean air, water, soil and power – economically, equitably, ecologically and elegantly enjoyed.

To achieve our vision of making the world better now and for future generations, we need a different approach to design. While each project will respond to its unique culture, site, budget and schedule, a few simple approaches remain constant.

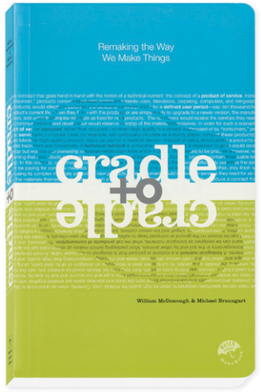
Begin by designing for a beneficial human footprint. Our ambition is to design for 'more good' by being positive and inspirational (e.g. use renewable energy) rather than only minimizing damage (e.g. produce less carbon).

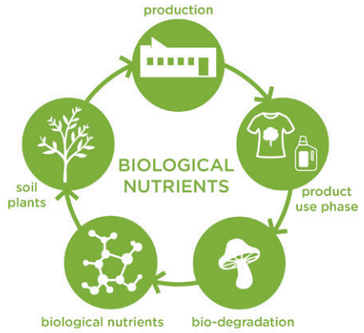
Use principles, goals, strategies and metrics (in that order) to guide action. This structure produces effective results, encourages innovation throughout project teams and ensures project alignment with corporate values.

Write nature's story. Interpret the corporate vision and create a campus design concept through the lens of Cradle to Cradle® thinking. This will connect the client to its unique place in the world, and help unify the project team, generate new ideas and stimulate communication with the surrounding community.

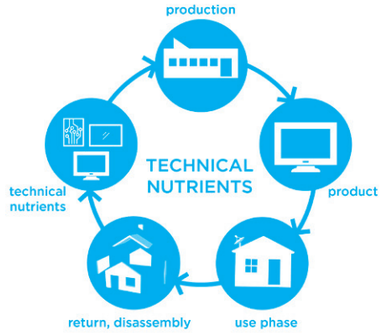
Anticipate the future. Look for emerging technologies and changing demands. Design flexible spaces that can easily adapt as technologies become feasible and needs evolve.

Create a framework for innovation. Encourage improved processes, technologies and infrastructures; support experimentation and the exchange of knowledge. Document the design process and share lessons learned. Improve upon what others have done before.





BIOLOGICAL CYCLE
products for consumption



TECHNICAL CYCLE
products as a service

In their 2002 book *Cradle to Cradle: Remaking the Way We Make Things*, architect William McDonough and chemist Dr. Michael Braungart presented an integration of design and science that provides enduring benefits for society from safe materials, water and energy in circular economies and eliminates the concept of waste. The book put forward a design framework characterized by three principles derived from nature which inform our designs at all scales:

Everything is a resource for something else. In nature, the "waste" of one system is food for another. Buildings can be designed to be disassembled and safely returned to the soil **(biological nutrients)**, or re-utilized as high-quality materials for new products and buildings **(technical nutrients)**. Conventional building systems and infrastructure (for example, wastewater treatment) can be redesigned to become nutrient management systems that capture previously discarded resources for safe and productive reuse.

Use clean and renewable energy. Living things thrive on the energy of current solar income. Similarly, human constructs can utilize clean and renewable energy in many forms—such as wind, geothermal, gravitational energy—thereby capitalizing on these abundant resources while supporting human and environmental health.

Celebrate diversity. Around the world, geology, hydrology, photosynthesis and nutrient cycling, adapted to locale, yield an astonishing diversity of natural and cultural life. Designs that respond to the unique challenges and opportunities offered by each place fit elegantly and effectively into their own niches.

Rather than seeking to minimize the harm we inflict, *Cradle to Cradle* reframes design as a positive, regenerative force—one that creates footprints to delight in, not lament.

BUILDING LIKE A TREE

Inspired by Cradle to Cradle Design™ and The Five Goods™

Using the intellectual and practical filters of Cradle to Cradle Design, buildings are viewed as an aggregation of nutrient metabolisms, energy and water flows, and cultural and ecological biodiversity. The Cradle to Cradle Design Framework for the built environment include what we call **The Five Goods™:**

Material Health

GOOD MATERIALS

Safe, healthy, biological and technical nutrients

Prefer products which can be characterized as “biological nutrients” (those that can safely biodegrade and improve soil health) or “technical nutrients” (those that can be fully recycled, safely returning to high-valued uses in new products).

Circular Economy

GOOD ECONOMY

Circular, sharing and shared

Construction practices can facilitate easy building disassembly and material reuse. Develop long-term relationships with product manufacturers, such as product leasing arrangements, to ensure companies take responsibility for materials in the short and long term, and that they return nutrients to the biosphere or technosphere as appropriate.

Renewable Energy

GOOD ENERGY

Clean and renewable

Living things thrive on the energy of current solar income. Similarly, human constructs can utilize renewable energy in many forms—such as solar, wind, geothermal and gravitational energy—thereby capitalizing on these abundant resources while supporting human and environmental health.

A TREE...

generates **OXYGEN**
fixes **NITROGEN**
creates **HEALTHY SOILS**
cleans **WATER**
creates **MICROCLIMATES**
allows for **ADAPTATION**
is **BEAUTIFUL**
is **SELF-REPLICATING**
is **PHOTOSYNTHETIC**

Water Stewardship

GOOD WATER

Clean and available

The interplay between industrial and natural systems creates a new model for the regeneration of air, water, soil, and habitat. An integrated system of green roofs, vegetated swales and pervious paving caputres, cleanses and releases clean water.

Social Fairness

GOOD LIVES

Safe, creative and dignified

Promote individual human dignity with safe working conditions. Promote fairness, so groups of laborers or suppliers aren’t exploited with dangerously low wages or prices along the entire value chain.

THE OVERALL GOAL IS TO DESIGN AND MODEL NATURALLY INTELLIGENT STRUCTURES.

We must model positive futures and define an accessible and replicable model of how buildings can address the global challenges of sustainability and generate immediate and long-term ecological benefits by fostering intelligent resource use.

WM+P begins with companies' values to design projects which embrace Design for the Circular Economy™, integrate Cradle to Cradle Certified™ materials, use renewable energy and celebrate diversity to encourage environmental health and abundance.

Take a look at WM+P's Planning + Community Design projects incorporating **Cradle to Cradle Design™** and **The Five Goods™**

AGRO FOOD PARK

Vision and Master Plan

Aarhus, Denmark
Master Plan competition 2015

Client Agro Food Park, Realdania

Area 2020 Phase -92,200 M2
2030 Phase -200,00 M2

Program Vision and Master Plan development plan, Innovation Strategy

Team

3XN/GXN, Architect Team Leader; William McDonough + Partners, Collaborating Architect; BVCA Architects and Urland, Planning

Together with 3XN/GXN architects in Copenhagen, William McDonough + Partners was selected to create a vision and development plan for the Agro Food Park in Skejby, located in the northern part of Aarhus, Denmark. The team presented their proposal for how to develop an urban environment that promotes innovation, knowledge sharing and interaction between companies in the Agro Food Park, which is the centre for food and agricultural innovation.

World leading Cluster

Agro Food Park has the ambition to become a world leading cluster for food and agriculture innovation. But what can create the physical basis for an ecosystem of knowledge exchange?

People, knowledge and ideas

First and foremost, it is important to emphasize that a physical master plan can only be the basis for this development. The physical environment should be populated by people and ideas that provides the physical framework meaning and content.

"A carbon positive city demonstration at The Agro Food Park can be the embodiment of this new century—its clean water, air, soils and energy serving as a continuous source of economic and ecological innovation and regeneration , redefining how we act now for a positive future"

- William McDonough, FAIA, Int. FRIBA

AGRO FOOD PARK

The Strip, The Plazas, The Lawn
We have in our approach focused on developing and strengthening Agro Food Park's identity through three primary spatial and landscape concepts which we have called "The Strip", "The Plazas" and "The Lawn". These three concepts relates to the key elements for the future cluster, namely the urban and the agro culture.

The Strip is a street and campus course with open facades and shared amenities. It is here the companies and knowledge institutions of Agro Food Park display their identity and products. The main street is built in a density that create life and activity, kept in a human scale.

The Plazas are a number of plazas that have urban density and experiential qualities and gives local character to the surrounding buildings.

The Lawn is the central open green area in the masterplan. It functions as the showroom for experimentation and innovation within agriculture and food production.

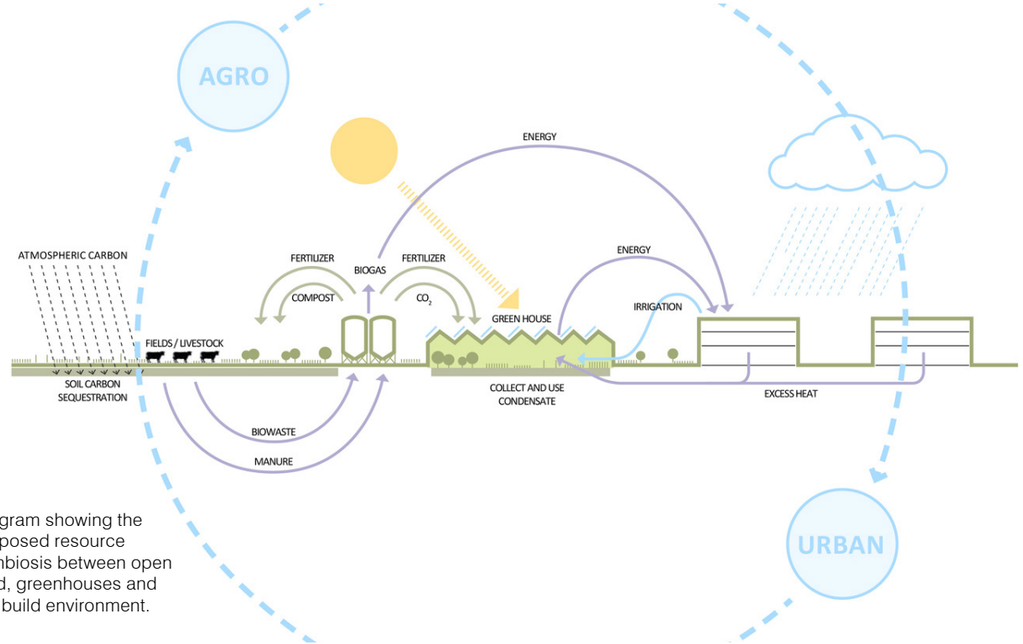


Diagram showing the proposed resource symbiosis between open land, greenhouses and the build environment.

Agro Food Park Masterplan.
Images Courtesy of TEAM GXN ©

ALKIMOS CONCEPT MASTER PLAN

Perth, Australia
Master Plan Competition

Client Satterley Property Group

Program Coastal community concept plan, includes a regional centre, neighborhood villages and a substantial coastal harbour.

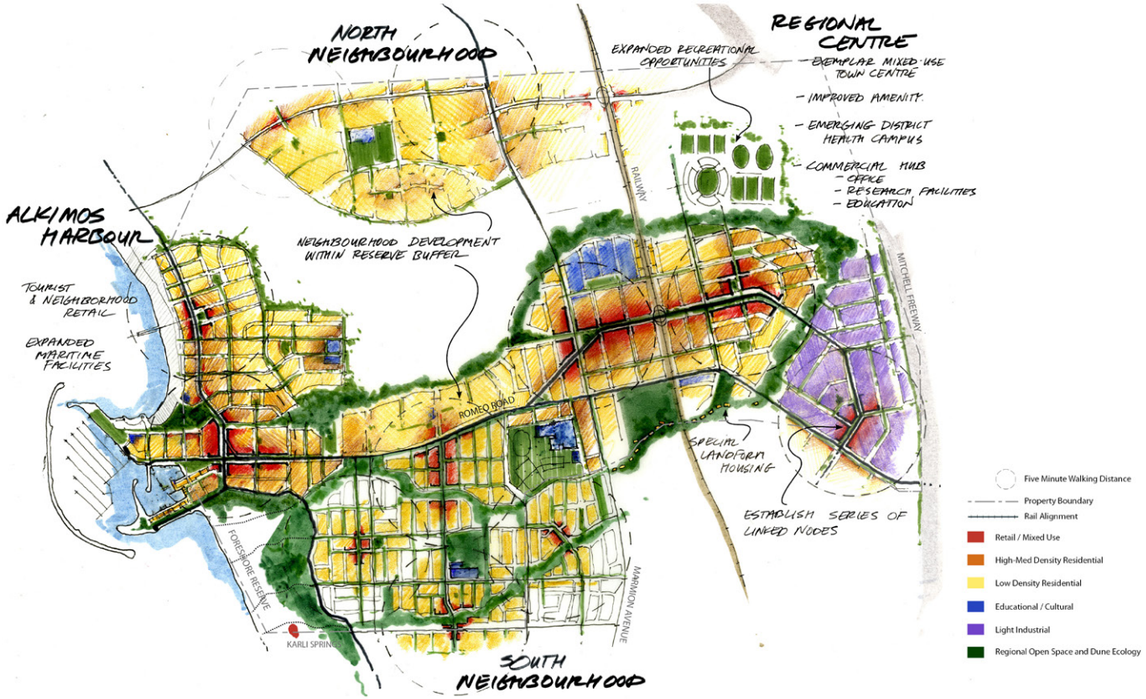
Area 700 hectares

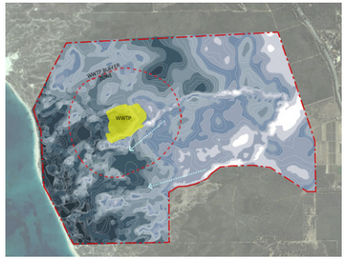
Team William McDonough + Partners, Master Planning; Active Sustainability, Consulting; Lincoln Scott, Systems Engineering; JCY, Urban Design; Simon Youngelson, Vernacular Architecture; Chappell Lambert Everett, Town Planning; TPG, Town Planning; Parsons Brinkerhoff, Transit; Macroplan, Economic Analysis

JCY Architects & Urban Designers

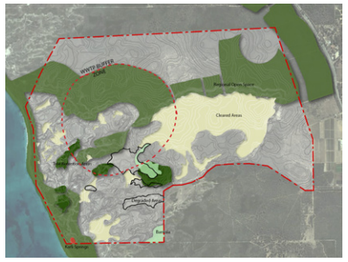
The Alkimos Concept Master Plan was created as part of a competitive bid to develop a new community on the western coast of Australia. The vision that land authority established for Alkimos is “a master-planned community of global significance that is moving toward carbon-neutral living.”

WM+P led a distinguished international team to create master planning framework for evolutionary development that defines a path toward carbon neutrality, phasing in land uses with sustainable energy, water and waste strategies as they become technologically and financially viable. This long-term decision-making framework promotes non-emotive, practical and cost-effective strategies to ensure well-integrated site systems and infrastructure over time. Inspired by the regenerative design agenda of Cradle to Cradle Design™ Framework, the design team collaboration led to regenerative planning approaches at all scales of the community, from enhancing regional ecological connectivity and on-site biodiversity to supporting community health and well-being.





Site Hydrology



Landscape

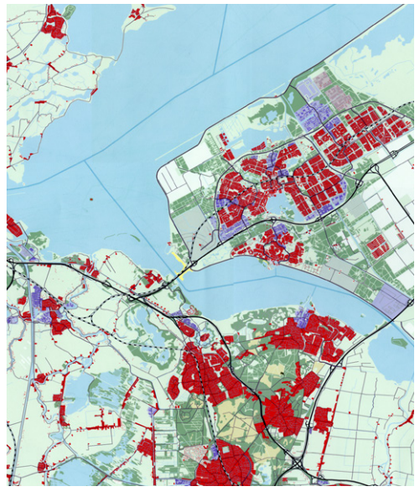
Dune Ecology

THE ALMERE PRINCIPLES

Almere, The Netherlands

Client Municipality Almere, The Netherlands

Area 96 square miles



Almere will become the fifth largest city in the Netherlands with 350,000 people living and working in a polder, land that was very recently reclaimed from the sea. This will require doubling Almere's current population between now and 2030—an unprecedented rate of growth, with a resulting population exceeding what was originally intended when the polder was planned and built thirty years ago.

To guide this development, WM+P and the Municipality of Almere collaborated to develop a powerful and inspirational declaration of intent for an ecological, economic and socially sustainable city that reflects the history and character of the people of Almere.

THE ALMERE PRINCIPLES:

Cultivate diversity To enrich the city we acknowledge diversity as a defining characteristic of robust ecological, social and economical systems. By appraising and stimulating diversity in all areas, we can ensure Almere will continue to grow and thrive as a city rich in variety.

Connect place and context To connect the city we will strengthen and enhance her identity. Based on its own strength and on mutual benefit, the city will maintain active relationships with its surrounding communities at large.

Combine city and nature To give meaning to the city we will consciously aim to bring about unique and lasting combinations of the urban and natural fabric, and raise awareness of human interconnectedness with nature.

Anticipate change To honour the evolution of the city we will incorporate generous flexibility and adaptability in our plans and programs, in order to facilitate unpredictable opportunities for future generations.

Continue innovation To advance the city we will encourage improved processes, technologies and infrastructures, and we will support experimentation and the exchange of knowledge.

Design healthy systems To sustain the city we will utilize Cradle to Cradle® solutions, recognizing the interdependence, at all scales, of ecological, social and economic health.

Empower people to make the city Acknowledging citizens to be the driving force in creating, keeping and sustaining the city, we facilitate their possibilities for them to pursue their unique potential, with spirit and dignity.

ALTASEA
Master Plan

Port of Los Angeles, San Pedro, CA
Master Plan Completed

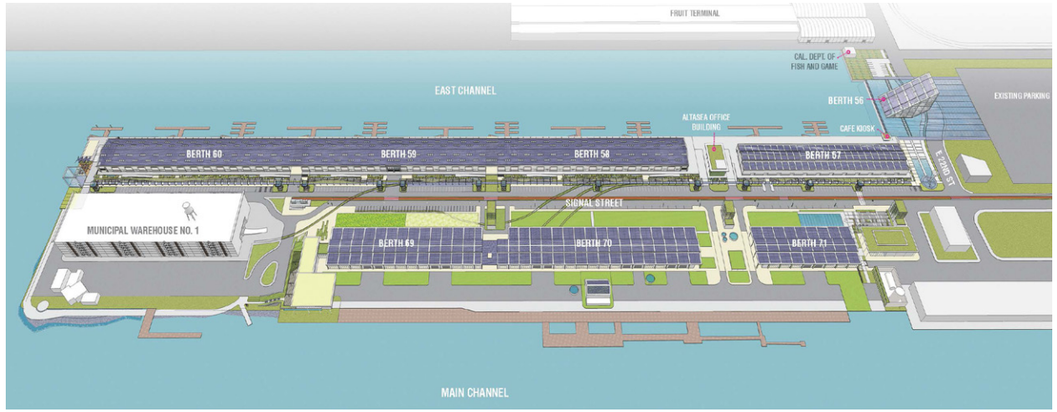
Client AltaSea, Port of Los Angeles
Area 28 Acres

Team

William McDonough + Partners, Master Planners / Design Architect; Rana Creek, Landscape Architects; Page & Turnbull, Historic Preservation; TTG, Seawater System; Holmes Culley, Structural; WSP, Energy

William McDonough + Partners' collaboration with Port of Los Angeles officials, philanthropic leaders, marine scientists, students and community members, resulted in a bold vision to transform City Dock No. 1, a 100-year-old pier at the Los Angeles Harbor in San Pedro, into a world-class urban marine research and innovation center.

The concept for the facility features circulating sea-water labs, offices, classrooms, lecture halls, support facilities, an interpretive center, and an opportunity to develop the world's largest seawater wave tank for studying tsunamis and rogue waves.



"AltaSea will position the City of Los Angeles as the premier location for addressing ocean-related environmental issues that are not only important to Southern California, but to the world," said Former Mayor Antonio Villaraigosa. "This public-private partnership will create jobs, draw new industries to the City, provide tremendous educational opportunities, and enhance the overall quality of life in Los Angeles."

CONCEPT FOR ROOFTOP FARMING

Master Plan

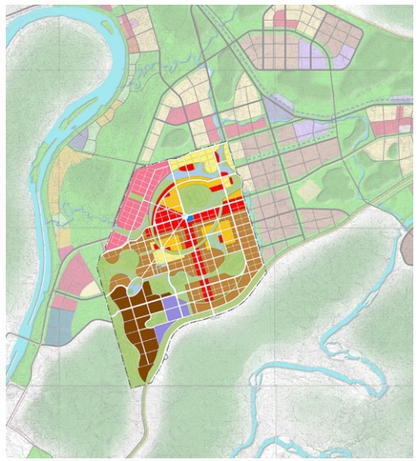
Liuzhou, Guangxi
People's Republic of China
Master Plan Completed 2005

Client Liuzhou Municipal People's Government and Administrative Commission of Liuzhou New & High Tech Industrial Developoment Zone

Area 5,436 acres (22 square kilometers)

Awards
ASLA Professional Awards, 2007

Team
William McDonough + Partners, Design Leader; JFNew, Project Partners; China Housing Industry Associate, Project Partners; The China-US Center for Sustainable Design, Project Partners



This concept master plan aspires to indicate, through its design strategies, a future that is positive and hopeful in all aspects. Striving to maximize social engagement, the plan creates an urban structure that promotes walking and healthy activities in its multitude of parks, paths and trails.

The development will also preserve existing stream and wetland communities, returning clean, healthy water to the ecosystem at equal rates and in the same patterns of the undeveloped site through the use of integrated strategies. The overall goal is to make Liuzhou's water cleaner, to make its air fresher, and to make its people happier. Befitting its designation as a demonstration project, the plan demonstrates what is possible in Liuzhou, in China, and in communities around the globe. The project serves as a challenge to seek excellence in placemaking that will enable Liuzhou's children to live and work in concert with a world full of potential and opportunity.

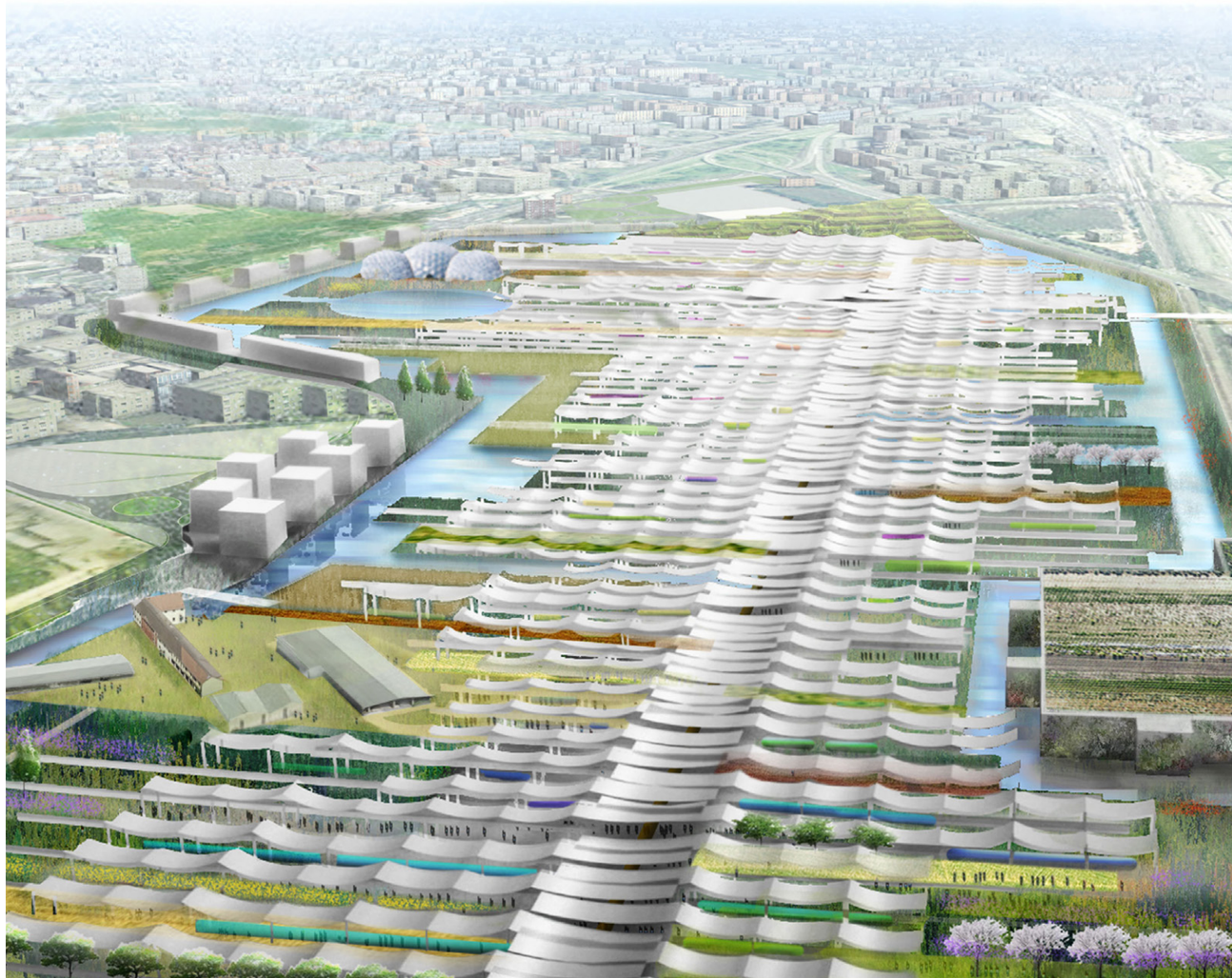
EXPO 2015
Master Plan

Milan, Italy
Project 2010-2015

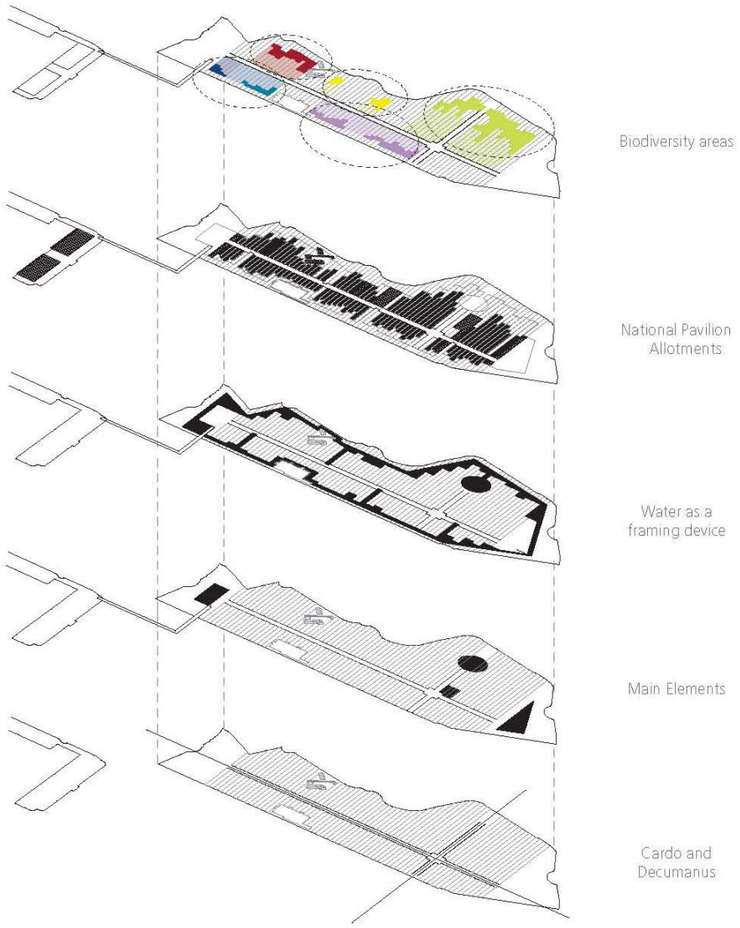
Client EXPO 2015

Team
Feeding the Planet, Energy for Life - the Conceptual Master Plan and Planning Office Herzog & de Meuron, Jacques Herzog London School of Economics, Ricky Burdett Stefano Boeri Architetti, Stefano Boeri William McDonough + Partners, William McDonough

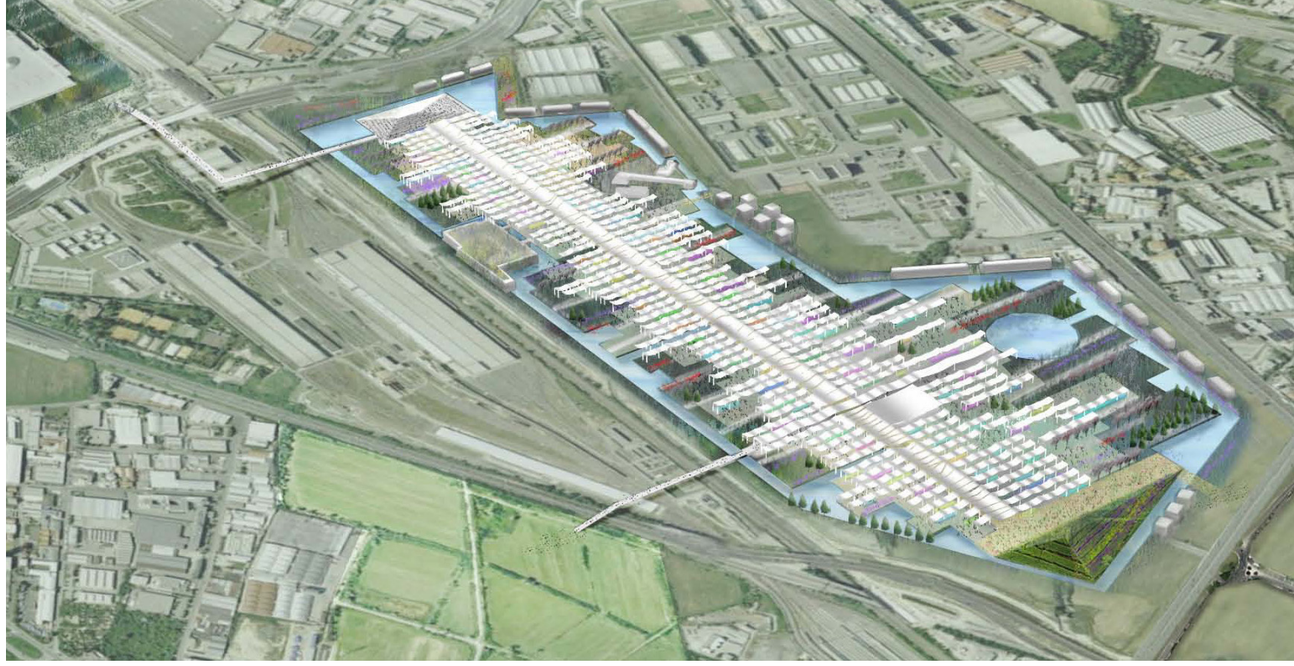
William McDonough was a member of the EXPO 2015 Master Plan advisory committee and the firm participated in the development of the plan for this world expo held in Milan, Italy in 2015. With the theme of “Feeding the Planet, Energy for Life,” the team developed a compelling concept allotting the site into strips of land which are connected by a central boulevard. Plots incorporated demonstrations related to food growth, production and preparation. Pavilions were proposed to be demountable and constructed from safe materials designed to return either to biological or technical metabolisms.



EXPO 2015



COMPOSITE SITE ORGANISATION CONCEPTS



FULLER THEOLOGICAL SEMINARY

Long-Range Master Plan

Pasadena, California
Planning began July 2003

Client Fuller Theological Seminary

Area 12 acres

Program Long-range development plan

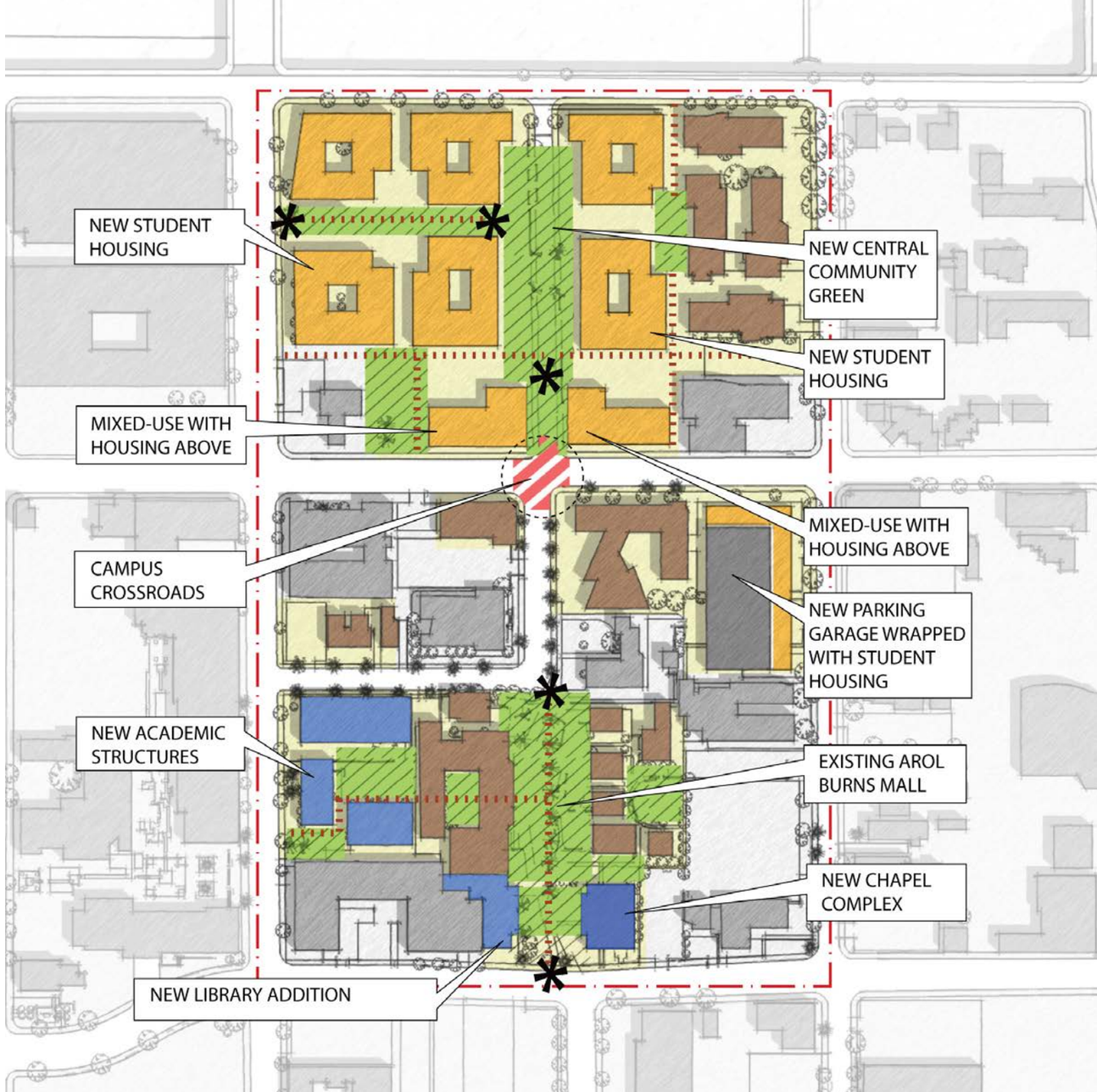
Team
William McDonough + Partners, Master Planning; EPT Design, Landscape Architecture; Linscott, Law & Greenspan, Transportation

William McDonough + Partners shepherded the master plan through what has historically been a challenging public review process, successfully addressing zoning, historic preservation, and traffic concerns to receive unanimous approval from the City Council.

After decades of unplanned growth, Fuller Theological Seminary wanted a comprehensive long-range plan for academic facilities and family student housing that would reflect its international stature, accommodate growth, and fit within its Pasadena context. WM+P developed a master plan that gave new definition and identity to the campus, creating clear academic and residential cores and new gateways defined by prominent building sites.

The City's Planning Administrator and staff cited the master plan submission as setting a new standard of excellence.

An expansion of the library and a new Center for Worship and the Arts, core components of the plan, have been designed and the library was completed in 2009.



GRÜNEWALD MIXED USE DISTRICT

Co-Creation According to a Cradle to Cradle® Approach

Kirchberg, Luxembourg
Schematic Design In Progress

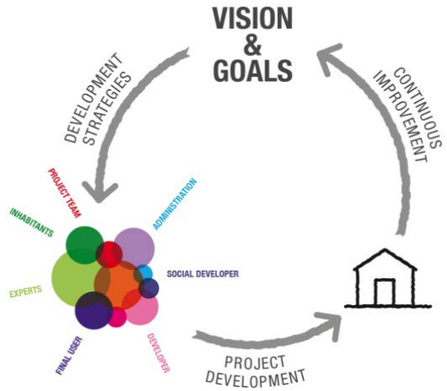
Client: Fonds Kirchberg

Area 17,280 square meters

Program Hotel (short term stay) 7,953m2, Apartment/Hotel (long term stay) 1,500m2,

Office 2,520m2, Housing 4,485m2, Kiosk/Café / Restaurant, Plaza – 2,700 m2,Underground Parking/Services – 17,280 m2

Team
William McDonough + Partners, Master Planning, Design Architect; Impact Lab - Giny Laroche, Advisor, Postive IMPAKT - Jeannot Schroeder, Project Manager; Zachariasse |Consulting, CE - Financial Advisor, EB Hotel Tourismus Consulting & Management, Hotel Consulting



Through a positively defined co-creation process, William McDonough + Partners collaborated with the Kirchberg Fund (Fonds Kirchberg) to develop a tender process framework that created a set of Visions and Principles which will unite the Grünewald, Kiem District and the Kennedy Süd-Zone in Luxembourg City.

WM+P's thought leadership role in design for the Circular Economy and Cradle to Cradle Design™ thinking has led to the creation of the governing principles and development framework for the Kirchberg Plateau.

As the Master Plan and Design Architect for the Grünewald District site, WM+P also drew on Cradle to Cradle Design for inspiration. The mixed-use district which will include a hotel (short-term stay), apartment/hotel (long-term stay), housing, offices and urban public spaces. Designed for resiliency and flexibility, the master plan increases connectivity to the existing city, landscape and surrounding neighborhoods, creating a central space for various communities and uses.

Aiming to become an embodiment and extension of Kirchberg's values, the master plan promotes concrete steps toward 100% renewable energy, enhanced biodiversity, positive water balance, material health, human and environmental well-being, and component demountability and recyclability. The Grünewald District will be an inspiration for the future of cities and agro-business as well as a model for circular design and thinking.

GRÜNEWALD MIXED USE DISTRICT

The Grünewald: Mixed Use District is designed to demonstrate the positive design framework described in Cradle to Cradle: Remaking the Way We Make Things, with a focus on the reuse of resources implicit in the circular economy.

BUILDING LIKE A TREE: DESIGN POSITIVE™ framework

ENERGY POSITIVE

Living things thrive on the energy of current solar income. Similarly, human constructs can utilize renewable energy in many forms—such as solar, wind, geothermal and gravitational energy—thereby capitalizing on these abundant resources while supporting human and environmental health.

ECONOMY POSITIVE

Construction practices can facilitate easy building disassembly and material reuse. Develop long-term relationships with product manufacturers, such as product leasing arrangements, to ensure companies take responsibility for materials in the short and long term, and that they return nutrients to the biosphere or technosphere as appropriate.

WATER POSITIVE

The interplay between industrial and natural systems creates a new model for the regeneration of air, water, soil, and habitat. An integrated system of green roofs, vegetated swales and pervious paving captures, cleanses and releases clean water.

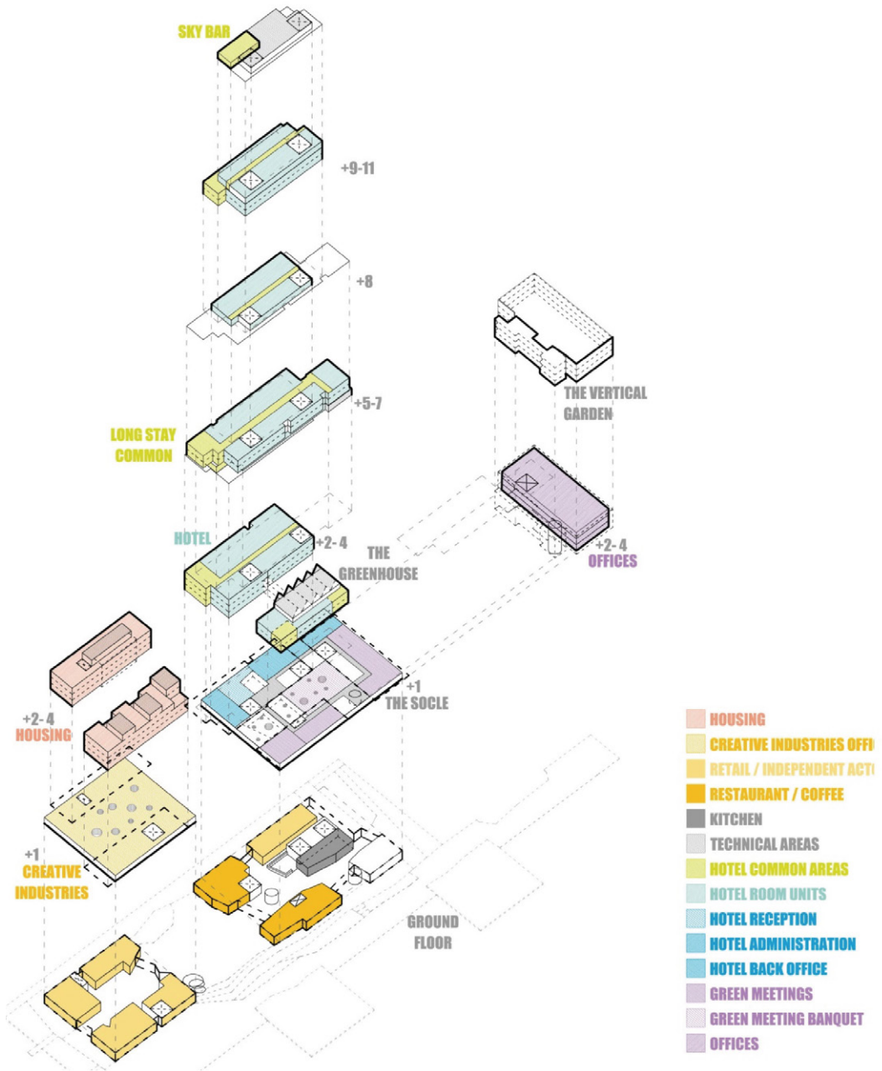
PEOPLE POSITIVE

Promote individual human dignity with safe working conditions. Promote fairness, so groups of laborers or suppliers aren't exploited with dangerously low wages or prices along the entire value chain.

MATERIAL POSITIVE

Prefer products which can be characterized as "biological nutrients" (those that can safely biodegrade and improve soil health) or "technical nutrients" (those that can be fully recycled, safely returning to high-valued uses in new products).

GRÜNEWALD MIXED USE DISTRICT



HALI'IMAILE CRADLE TO CRADLE FRAMEWORK

Maui, Hawaii
Entitlement process ongoing

Client Maui Land & Pineapple and A&B Properties

Program Sustainable design planning framework

Area 526 acres

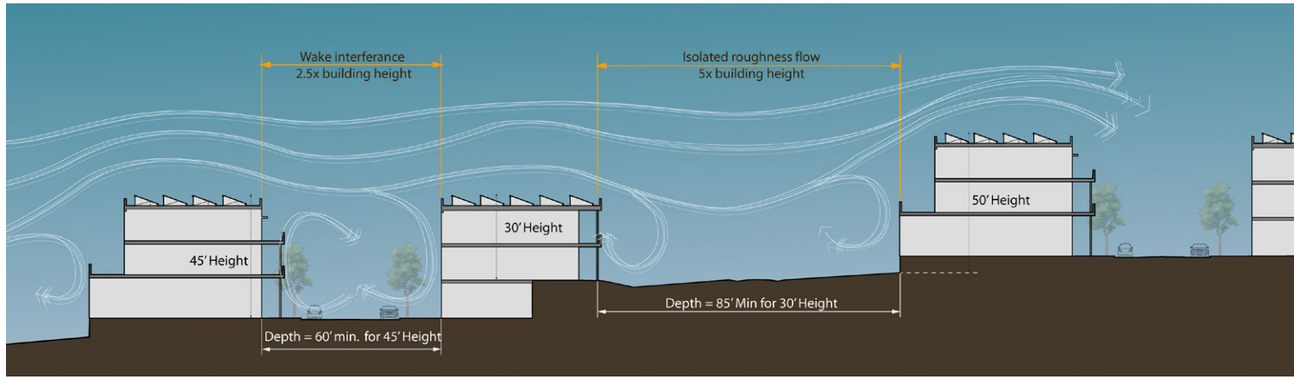
Awards Featured in the National Building Museum's 'Green Community' exhibit, 2008-2009

Team
William McDonough + Partners and WSP Environmental, Ltd.

Hali'imaile, a new community in Maui's upcountry, is a model for sustainable development, one in which site systems are key informants of community structure, pattern and design at the earliest stages of the planning process. This ambitious effort by Maui Land & Pineapple and A&B Properties addresses pressing issues of affordability and limited community resources in the development of workforce housing.

Responding to the client's commitment to the Hawaiian culture and its workforce, and their corporate values of contributing to a more environmentally sustaining future for the island, WM+P created a planning structure to integrate sustainable design and new urbanist design principles. A "base case" was created projecting water and energy use under conventional development standards to understand the extent of user demand for each system and then to measure the benefits derived from modeling an "optimized case" of sustainable strategies. By translating architectural and engineering strategies into a language addressing community planning, the framework has created a land planning approach from a new perspective—focused at the interface and integration of spatial planning, site systems, and built form. This system-based approach, modeled for the upcountry of Maui, represents early steps toward new and innovative solutions that can apply to the planning of more environmentally sustaining communities worldwide.

Neighborhood Block Orientation for Passive Energy Strategies



IJBURG "SUSTAINABILITY DASHBOARD" & PRINCIPLES

City of Amsterdam, The Netherlands
Under development

Client Project Bureau IJburg

Program Assessment of sustainability performance through C2C filter

Population 45,000 at completion of IJburg 1

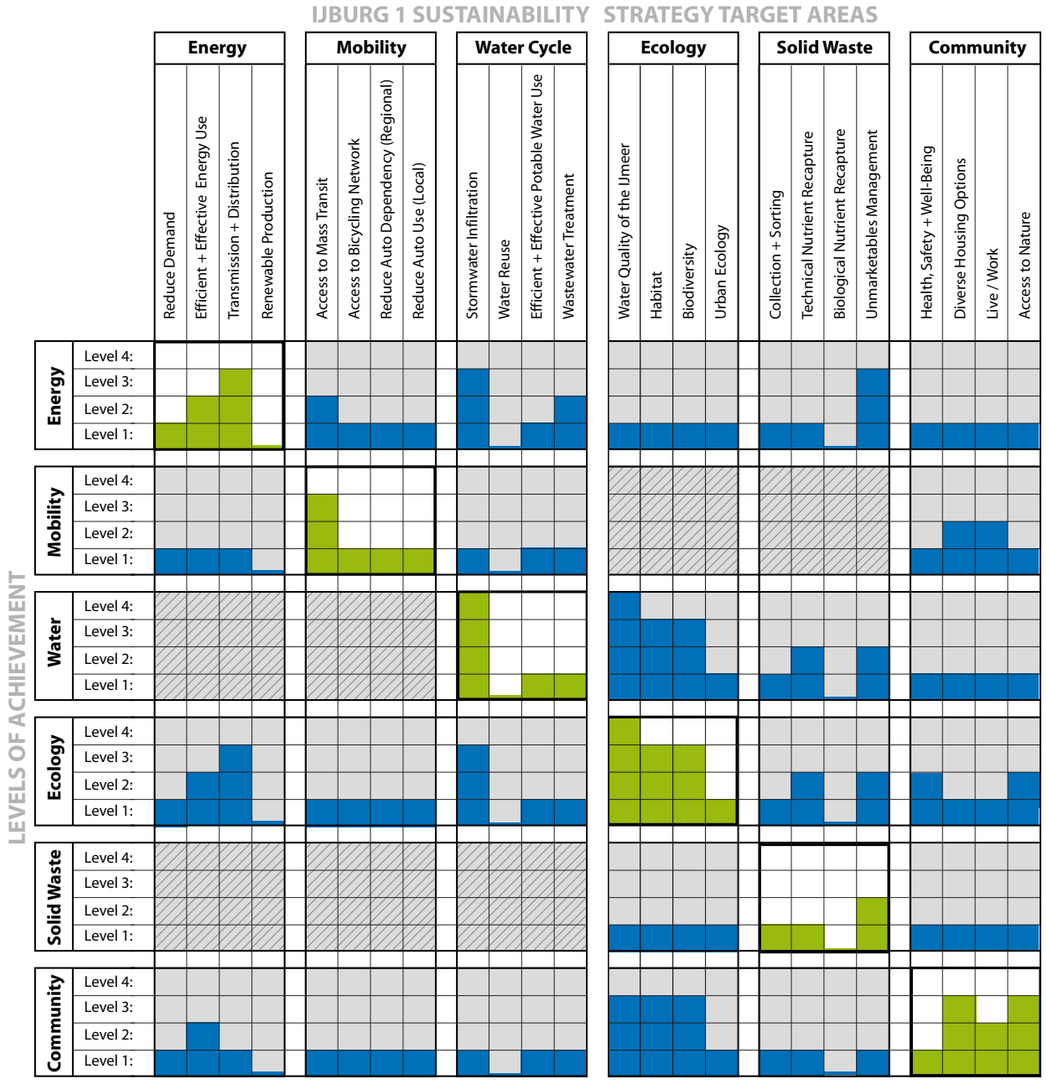
Area 40 hectares

The City of Amsterdam engaged WM+P to evaluate the level of sustainable design achieved at IJburg 1, the iconic urban community developed on a man-made island east of Amsterdam's historic center.

Goals for the assessment were to identify both the accomplishments and areas for improvement and then to develop sustainable design principles for next phase of development of IJburg 2. A key aspect of the assignment was to develop mechanisms to communicate the findings internally and to the public in a clear and effective manner.

WM+P led the inventory and assessment of the sustainable design strategies implemented during the development of IJburg I, created the dashboard that captures the assessment and authored the IJburg Sustainable Principles. Levels of environmental performance were assessed by applying today's standards of sustainability—even though planning began years before sustainable design expectations were well-established. Six major categories of sustainable strategies—energy, mobility, water cycle, ecology, solid waste and community—establish the dashboard framework.

The Project Bureau IJburg has embraced the Sustainability Dashboard and the Principles and is now utilizing these tools as they prepare plans for the development of IJburg 2.



ISLAND EARTH PROJECT

Imagine Catalina Strategic Plan

Catalina Island, California
2012

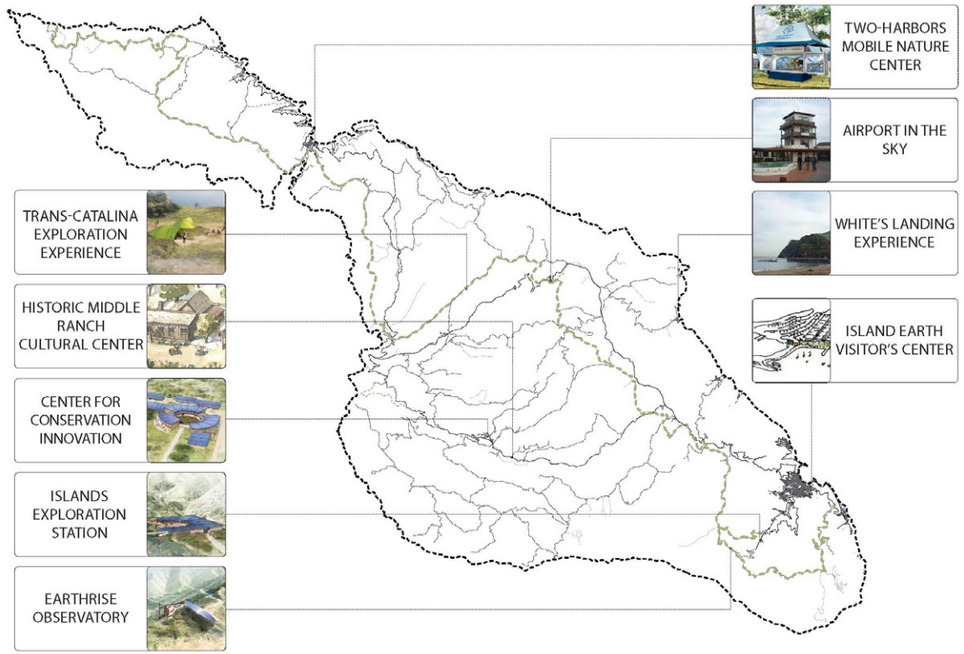
Client Catalina Island Conservancy

Area 113,000 square feet

Program Botanic Gardens, Visitors Center, Camping Experience, Laboratories, Residences

Team William McDonough + Partners, Conceptual Design Team Leader and Planner

Commissioned by the Catalina Island Conservancy to develop the Strategic Master Plan for the long-term stewardship of Catalina Island's expansive rugged interior and to develop an overall unifying vision for the Conservancy's existing and future support and public facilities, WM+P led a multi-disciplinary team that provided expertise in Cradle to Cradle Design™ thinking, landscape and urban design, economics, infrastructure systems, transportation and regulatory issues.



ISLAND ECO-RESORT

Master Plan

St. John, US Virgin Islands
Project 2015 - 2016

Client confidential

Area 20 acre site - Program Area +/- 75,000 sf

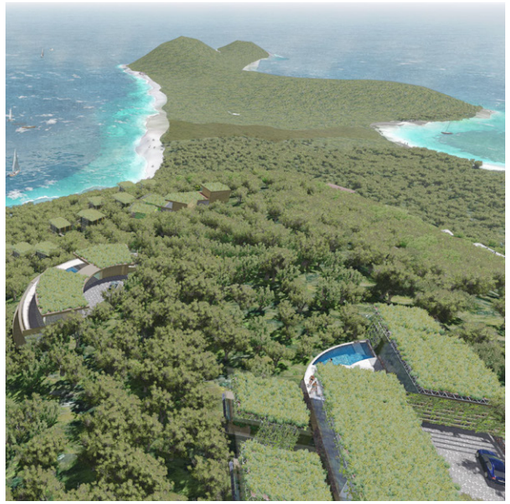
Program 50 Unit Eco-Resort

Using the Cradle to Cradle Design™ framework, William McDonough + Partners created a vision plan for a model of ecologically and socially beneficial Eco-tourism.

The conceptual project program included a range of guest lodging, resort facilities and individual private residential home sites.

ISLAND ECO-RESORT

The arrival pavilion is the first of many productive buildings that the guests will experience. The Wonderframe™ gabled form of the pavilion exhibits two photosynthetic surfaces, a vegetated north entry with a photovoltaic array to the south. The resort is a series of luxurious and elegant units that clean the air and water, sequester carbon, produce oxygen, create micro climates, capture the energy from the sun and more. Building products are intended be sourced locally wherever possible.



KLAVERTJE 4 “GREENPORT”

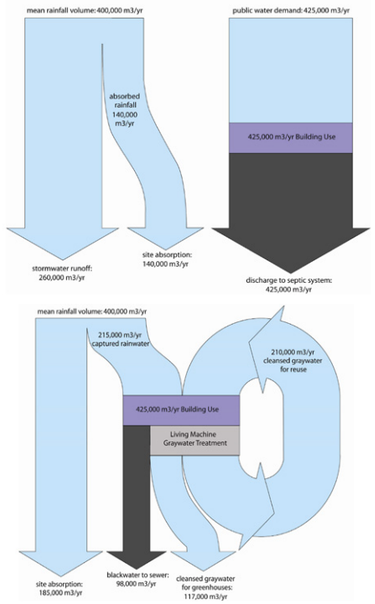
Cradle to Cradle Framework

Province of Limburg, The Netherlands
Master Plan Completed 2008

Client Province of Limburg, The Netherlands

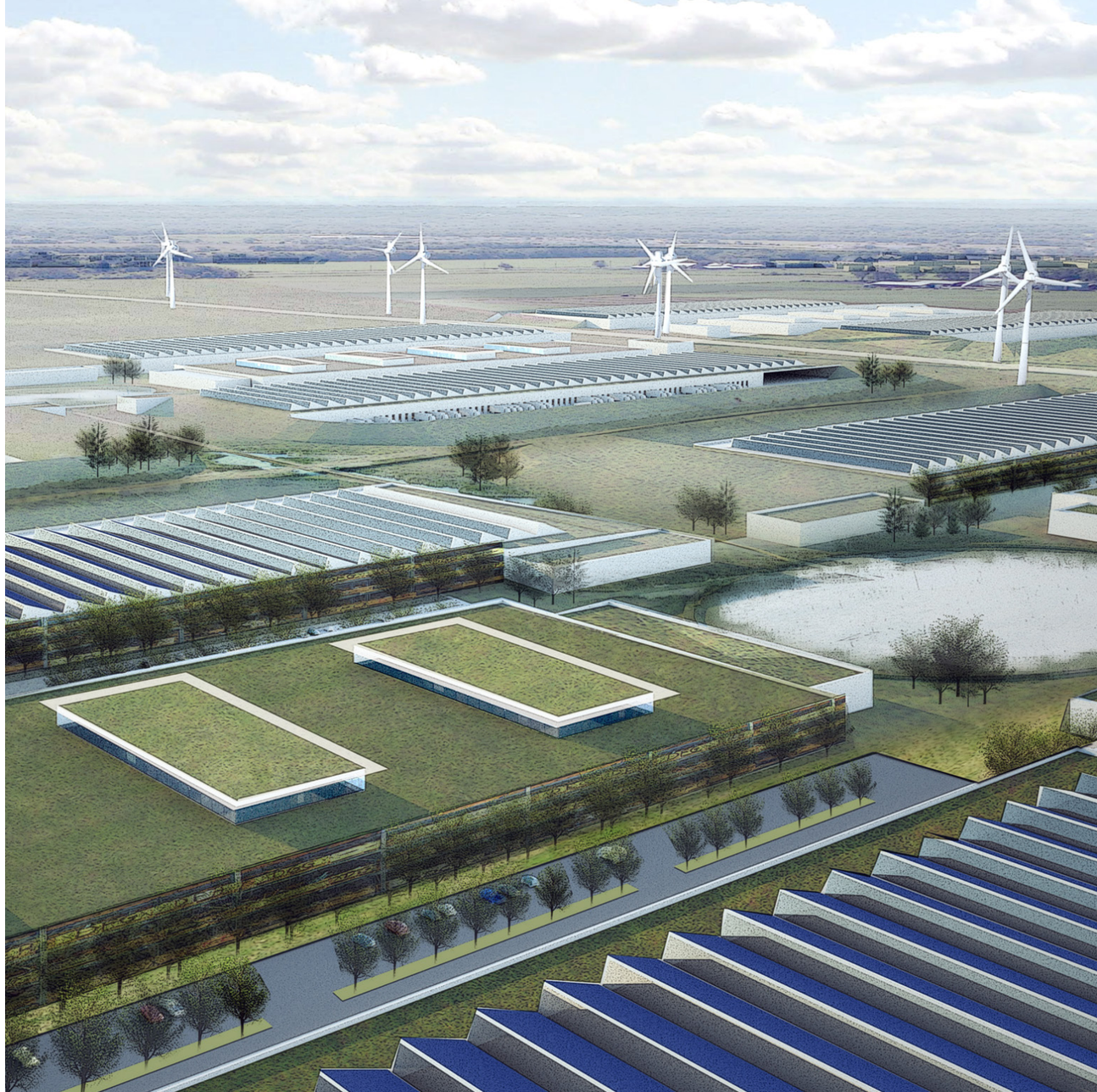
Area 1,285 acres

Team
William McDonough + Partners, Design Architect;
WSP Environmental, Environmental and Energy Consultant



WM+P created a planning structure based on cradle to cradle principles that would inform the master plan for the new Klavertje 4 “Greenport,” site of regional flower auctions and fresh food processing and logistics.

The long-term development framework sets a high standard for the next thirty years while still providing optimizations that could be implemented today, using current technologies. In collaboration with WSP Environmental, a “base case” for energy and water use was created and a series of optimizations outlined to improve performance and reduce demand. The framework provided guidance on how to take advantage of passive strategies (building orientation, daylighting and envelope design), incorporate active strategies (geothermal systems, adiabatic cooling and natural ventilation), and quantified the best renewable strategy to meet the reduced demand. Flows for baseline water use were estimated and then optimized to maximize reuse and minimize reliance on potable water, with the end goal of relying only on water that fell as rainfall on the site. Strategies for cleansing, reusing and infiltrating water were also included as part of the planning framework to ensure the development would support the natural water cycle. The framework then developed program mixtures, spatial ramifications, and optimized construction envelopes that met the cradle to cradle goals and provided models to be expanded upon in the development of the site master plan.



NORTH INNISFIL CONCEPT PLAN

Sustainable Village Community

North Innisfil, Simcoe County
Ontario, Canada
Conceptual Planning

Client Minto Communities, Minto Group Inc.

Area 406 hectares

Program Conceptual plan for a sustainable village community offering diverse housing types, mixed-use village cetners, employment and live/work opportunities, retail, community facilities, schools and quality open spaces.

Team
William McDonough + Partners, Master Planner;
Arup, Hydrology Systems and Energy Analysis

The plan creates a model of sustainable community development at a time when Simcoe County faces great environmental challenges. The plan incorporates the best of emerging urban planning approaches, employing an integrated and systems-based conceptualization process to consider innovative approaches to energy, storm water, waste, and transit from the earliest stages of our work.

Village Centers are surrounded by neighborhood clusters and linked with pedestrian-friendly roads. The open space systems provides public amenity while also providing storm water and waste water treatment. The community is organized to facilitate passive-energy strategies and will utilize renewable energy sources. By preserving the site's natural features and protecting regional hydrology, the plan respects the intent of current legislation; committing itself to improving the health of surrounding ecosystems through the protection and rehabilitation of water recharge areas, forested and vegetated buffers along fish habitats and wetland corridors. These considerations will serve to improve the health of the watershed ecosystem and provide new opportunities for conservation and recreation. The plan also contemplates new and effective environmentally conscious methods of wastewater treatment, stormwater management, and energy management.

PARK 20|20

Cradle to Cradle Design™ Development

Hoofddorp, The Netherlands
9 Completed, 1 in Design Development

William McDonough + Partners is the lead architect and master planner for Park 20|20, the first full-service Cradle to Cradle Design™–inspired working environment in The Netherlands.

Located within a man-made cultural landscape of a Dutch polder (land reclaimed from the sea), the firm was engaged by Delta Development Group in 2007 to create a new model of sustainable development that implements the Cradle to Cradle philosophy holistically and at all scales—from the city down to the molecule.

Client Delta Development Group

Area 114,000 sq. meters (Phase 1: 24,500 sm)

Awards
2010 ASLA Honor Award

2012 SHARE (Sustainable Haarlemmermeer Real Estate) Award

Team
William McDonough + Partners, Master Planning; Nelson Byrd Woltz, Landscape Architect

A NOW
Completed 2017

B Fox Vakanties
Completed 2012

C SHARE
Completed 2020

D Tower
In Development

E Bosch Siemens Inspiration House
Completed 2012

F FIFPro Headquarters
Completed 2013

G Bluewater
Completed 2014

H Biological Nutrient Pavilion
Completed 2012

I Plantronics Headquarters
Completed 2016

J Technical Nutrient Pavilion
Completed 2012

"We have looked at the best architects all over the world for the most innovative development in The Netherlands—a place known for sustainable thinking, business performance and economics—and there is no one better than William McDonough + Partners. Our clients, like Bosch Siemens, agree. This is the best architect imaginable for their business."

– Dr. Coert Zachariasse, CEO, Delta Development Group

WHAT MAKES PARK 20|20 DIFFERENT?

William McDonough + Partners' master plan is the paramount example of applying the Cradle to Cradle Design™ Framework and circular economy thinking to a community-scale development.

The plan is based on a few key principles that set it apart from a typical office park:

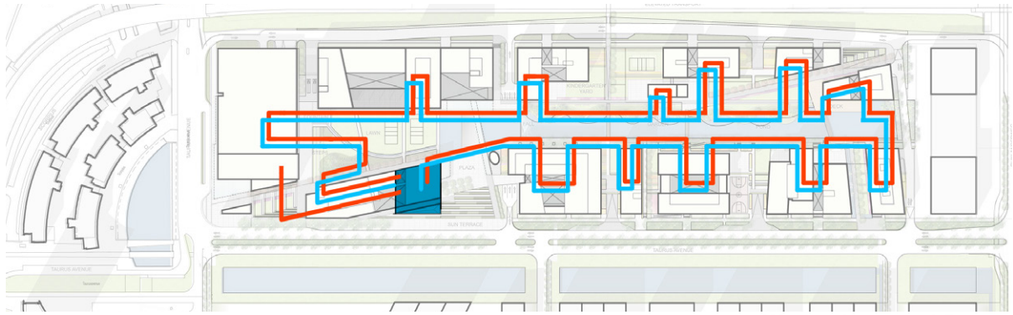
The buildings are constructed as "material banks" and are designed for disassembly or reconfiguration if market demand changes.

Financial leases with material suppliers lower upfront construction costs, which allow those suppliers to retain ownership of materials used in construction.

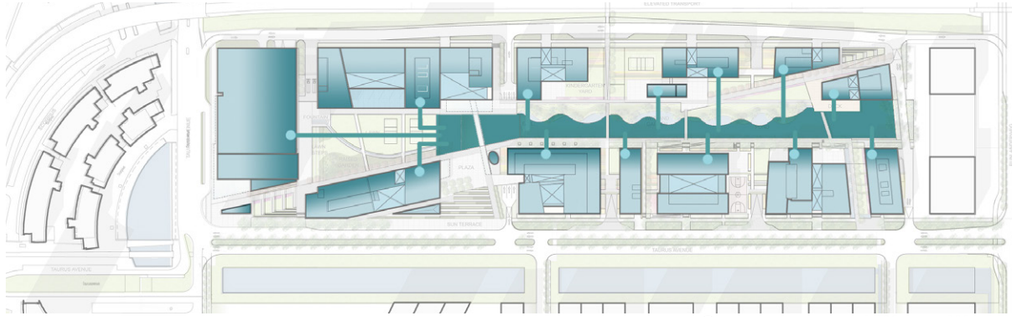
The buildings are designed with flexibility in mind, anticipating the needs of future tenants. Connections between floors can easily be changed and staircases repositioned, avoiding energy-intensive demolition processes to alter buildings' purposes.

Park 20|20 is the largest installation of Cradle to Cradle Certified™ materials worldwide. An integrated supply chain has resulted in reduced construction costs of 19% while improving quality at the same time, according to Cradle to Cradle® and BREEAM-NL Standards. By focusing on procuring the highest quality that budgets allow, rather than the cheapest price for meeting the technical specifications, Park 20|20 embodies innovation.

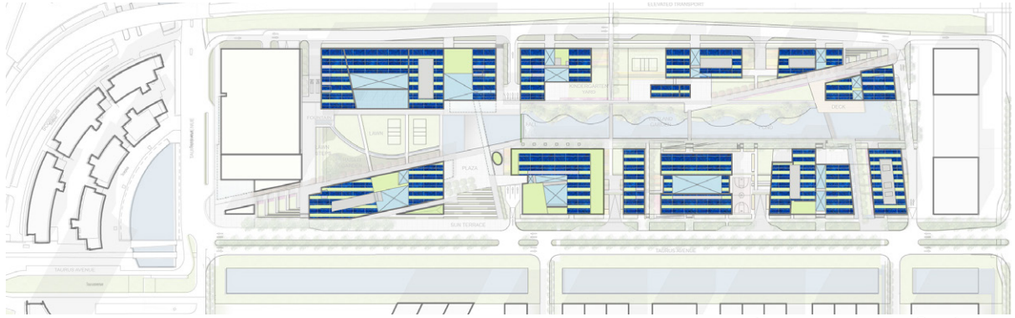
Structures are designed as integrated systems. While each building is unique, they are all designed to be supportive of William McDonough's concept of "a building like a tree." They generate energy, sequester water and through a central "nervous system" running through the entire community, the buildings "feed and nourish" each other as needed.



Waste, Heat and Power



Stormwater and Waste Water



Photosynthetic Surfaces

PARK 20|20

Integrated Systems

William McDonough + Partners' award-winning master plan creates a community of shared systems that serve as one big, live organism. While each building is unique, they are all designed to be supportive of William McDonough's concept of "a building like a tree." They generate energy, sequester water and through a central "nervous system" running through the entire community, the buildings "feed and nourish" each other as needed.

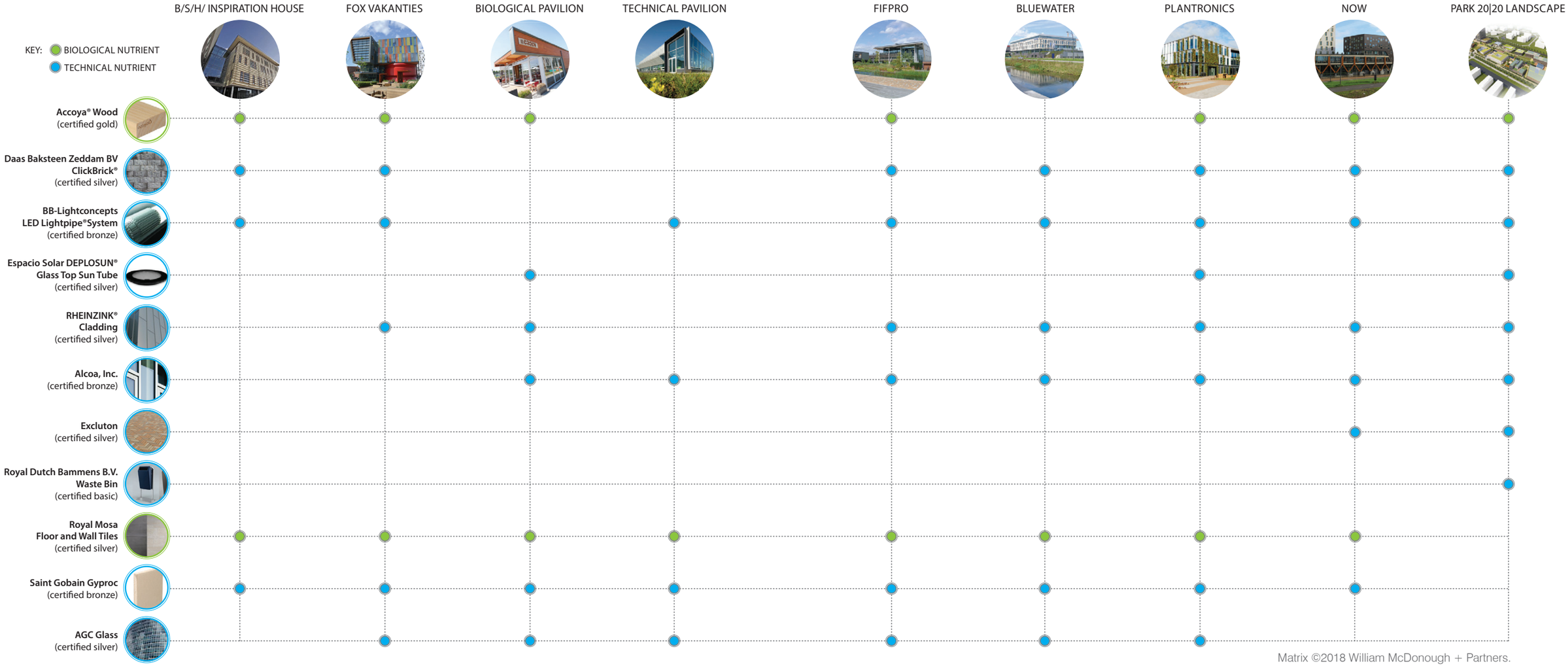
Waste, Heat and Power
Office wastewater and restaurant green wastes are treated in a solar aquatic waste-treatment system within a centralized facility on site. Biogas from the wastewater treatment powers the turbines for electricity. Heat generated in the process produces hot water for the hotel.

Stormwater and Wastewater
Wastewater is collected through a district loop for on-site treatment in the central facility. After purification, greywater is reused for toilet flushing. Green roofs absorb rainfall. Runoff and overflow are directed to on-site storage.

Photosynthetic Surfaces
Building roofs include photovoltaic (PV) arrays and green roofs—sustainable strategies that are also synergistic. With a cooler surface temperature, green roofs boost the efficiency of PVs while PVs provide shade to the landscape for increased biodiversity.

PARK 20|20

Cradle to Cradle Certified™ Products



Matrix ©2018 William McDonough + Partners.

PLAYA CARRILLO RESORT COMMUNITY

Master Plan

Playa Carrillo, Costa Rica

Client Madison Partners & Novita Capital

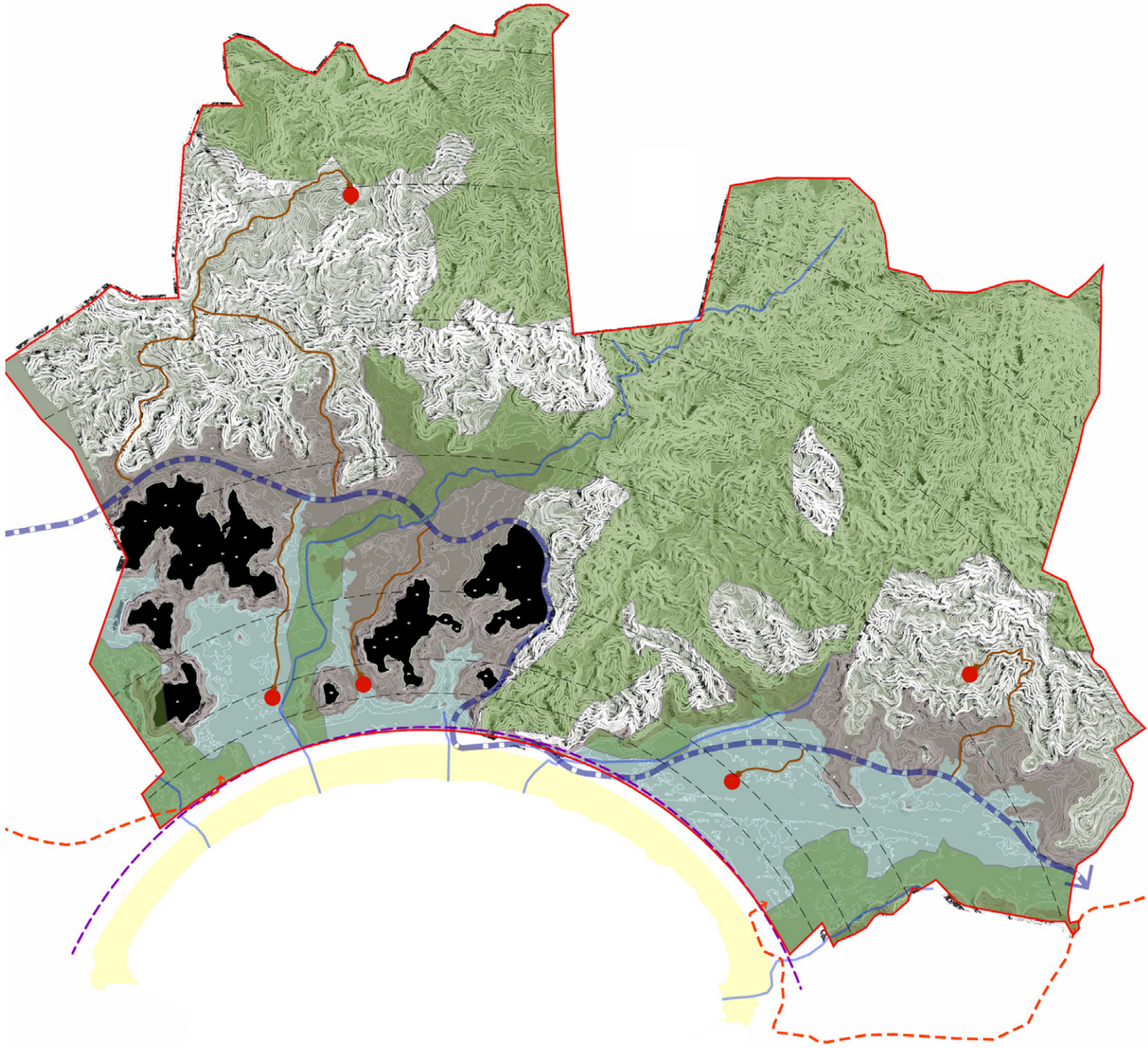
Program Capacity study of boutique hotels, five-star resorts, and private residences

Area 1500 acres

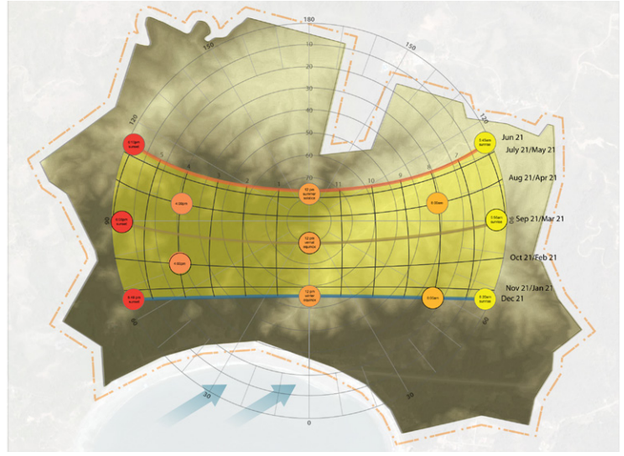
Team
Siteworks, Landscape Architect; WSP Energy, Energy Consultant; JF New, Hydrology Consultant

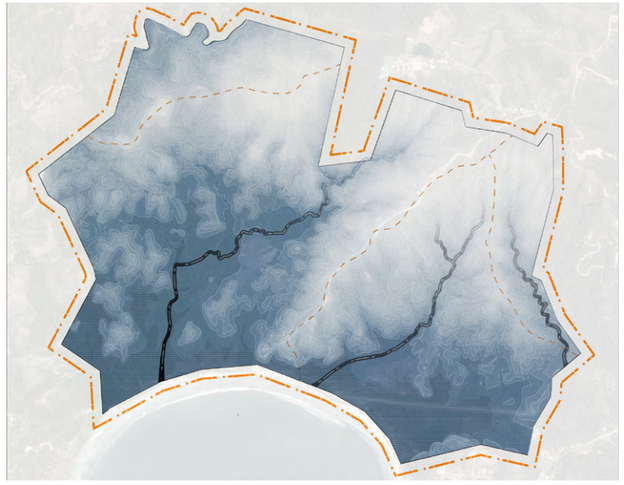
William McDonough + Partners led initial efforts to master plan the Playa Carrillo Resort Community as a model of sustainable development. A core component of our approach is an assessment of the natural systems of the site — the landform, hydrology, vegetation, climate and energy flows — to inform the pattern of development. This “Essay of Clues” forms the basis for establishing a development program including housing, hotels and resort facilities.

Our planning approach embraces a systems-based conceptualization process by which energy, water, waste and other systems are considered at the earliest stages of planning. This approach is crucial to meeting Costa Rica’s challenge to become the first carbon-neutral country. With over two miles of beach frontage and pristine foothills rising from the Pacific, this community will be planned to use topography and vegetation to frame stunning views throughout the property. The development team is committed to developing the site in an environmentally sensitive and socially responsible manner; creating an experience of luxury while preserving a sense of place and connection to nature.



PLAYA CARRILLO RESORT COMMUNITY





Design Strategies

Integrated energy and water systems including the harvesting and re-use of rainwater

Facilities built of local earth, renewable timber and reclaimed stone

Utilized salt and draught tolerant plants and indigenous materials

Responsible treatment of solid waste and wastewater created by the resort

Providing training and employment by dedicating a percentage of operating profits to community projects

Provide sustainable workforce housing in close proximity to the Carrillo resort

Playa Carrillo Essay of Clues Framework for a Sustainable Resort Community

Establish Essay of Clues and Existing Energy Resource Assessment

Determine land design strategies in response to on-site natural systems and flows

- Vegetation and land form
- Existing water flows
- Potential solar capacity
- Regional climate conditions

Protect Habitat Species and Mature Growth Vegetation

Determine extent of mature growth forest

- Assess wildlife habitat and migration criteria
- Restore habitat corridors and connectivity

Determine Energy Demand Profile

- Minimise on-site energy demand through climate responsive design
- Reduce solar heat gains
- Induce air movement and ventilation
- Energy efficient cooling systems

Supply of power and cooling via renewable technologies

Determine power, lighting and cooling demand

- Quantify potential for solar array, wind, ground source and biomass to supply
- site power

Interface with Water Waste and Transport Strategies

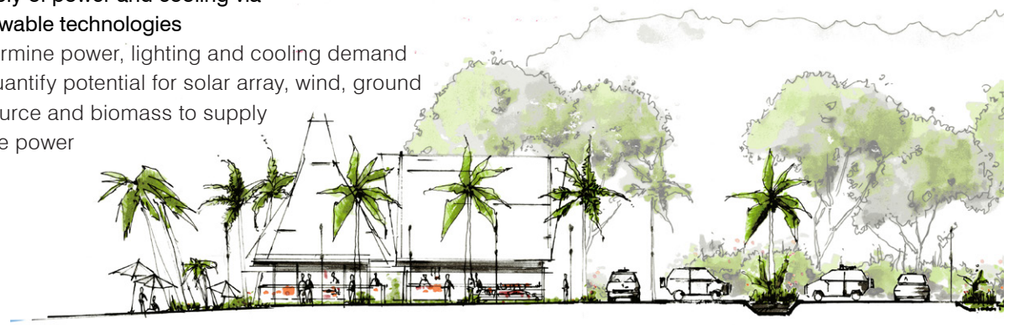
- Waste to power via CHP, waste to hot water and cooking
- Local hydro plant or wave energy
- Sustainable transport and mobility

Accommodate Existing Natural Water Flows

- Restore and protect natural water systems
- Establish a progressive water harvesting and management plan
- Implement natural treatment systems

Integrated Community Design

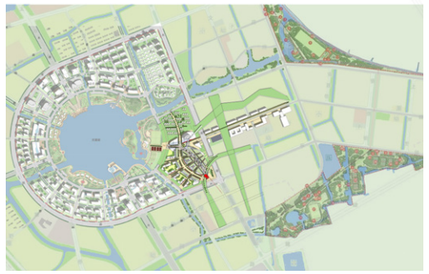
- Minimize soil erosion and site grading
- Employ native landscaping
- Use native materials and local workforce
- Support adjacent communities to strengthen and enhance their identity and economic vitality
- Maintain active and healthy relationships with the surrounding communities



TAICANG INNOVATION PARK
Concept Plan

Suzhou, Jiangsu, China
Preliminary Design Concept

Client withheld
Program Innovation Park
Area 16.745 Ha



The goal for Taciang Innovation Park is a dynamically nurturing, multi-generational, mixed-use, community. This conceptual plan for an urban community is based on values that allow us to ask, with both hope and practicality: How do we love all of the children, of all species, for all time? As we made our drawings we started with this question: Will a 10 year old child feel safe and delighted wandering and wondering here?

NOURISH. Everything is food: Food for Life. Food for Thought. Food for Industry. Food for Children

LEARN. Children's health, enjoyment, education and mentorship are cultivated.

PLAY. Children are safe and free to explore and shape their world with delightful mobility.

EXPLORE. Youth oriented media plays a central role in the exchange of ideas.

PURIFY. Buildings are like trees... providing safe, healthy food, water, oxygen and energy.

LIVE. Buildings are adaptable and anticipate continuous improvement, value and change.

WORK. Real world innovations show global leadership and provide global inspiration.

BENEFIT. Material value is maximized and all materials are managed as biological or technical nutrition with continuous uses.

TREASURE ISLAND FRAMEWORK

Master Plan

San Francisco, California

Client City of San Francisco

Area 403 acres

Awards
California Environmental Protection Agency Governor´s Environmental and Economic Leadership Award, 2008

The City of San Francisco's goal in integrating the former Treasure Island naval base as part of its urban fabric is to create "the most sustainable development in the United States." The Sustainability Dashboard provides a framework to consider proposed strategies against the City's stated goals, and to develop the next generation of performance strategies that ensure the City can meet its ambitious goals.

TREASURE ISLAND VALUES

Community. The concept of community is that of a wonderfully diverse group of people working together to live healthy, fulfilling and dignified lives. By achieving equity in access to facilities, services and environmental quality, Treasure Island will foster human potential and self-reliance.

Thriving ecosystems. The health of the Treasure Island community is interdependent with that of the San Francisco Bay. Ecosystem health relies not only on reestablishing biodiversity and indigenous species within “natural” landscapes but also extending habitat creation to Treasure Island’s permaculture. By embedding these ideas within man-made landscapes, agriculture and architecture, the development will promote a greater understanding of our role within the natural world.

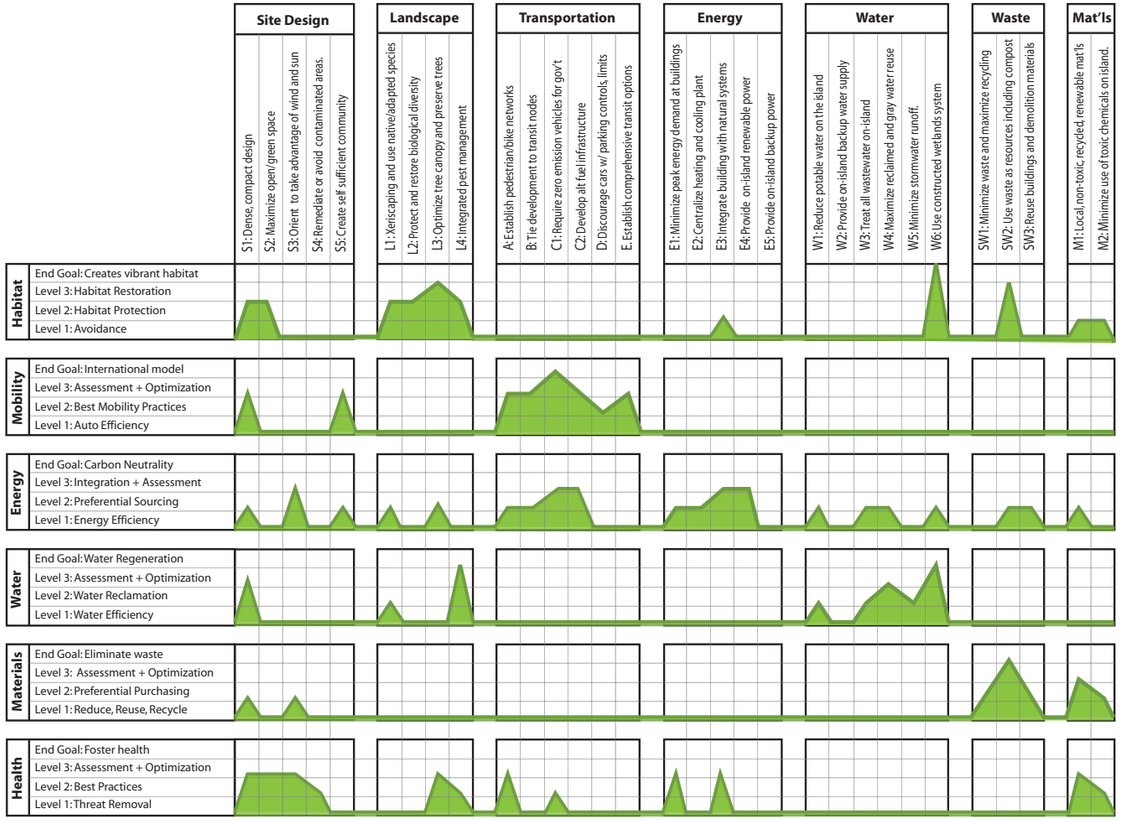
Healthy neighborhoods. Individual and community health is inextricably linked to the built environment. Clean air, water and power will be created by a development that privileges bikeability and walkability, preserves open space, fosters local organic agriculture and strategically locates higher density, mixed-use development adjacent to transit centers.

Global responsibility. As a low-lying island, the Treasure Island community recognizes and embraces its interconnectivity with the global community. Effects on distant communities and ecologies are as important as those experienced by the Treasure Island community and the San Francisco Bay.

Integrated Design and Lasting Beauty. The life of the built environment on Treasure Island will be measured in centuries, not decades. By creating beautiful, intelligent, anticipatory, adaptable and easily maintained designs that ensure continued sustainable outcomes over time, Treasure Island will be an enduring asset for future generations.

Public Participation and Transparency. Sustaining development is built upon a process that is transparent, participatory and fully informed by the social, economic and environmental value of every action. In accordance with the City’s precautionary principle, the best decisions are those that have thoroughly assessed a range of alternatives and selected the alternative that best promotes human and ecological health.

These values guide all action undertaken by the City and the developer toward achieving the current goals for Treasure Island. In addition, the values will help to identify new goals and strategies once current goals are achieved.



Articulating the 100% good goals as a vision for the City of San Francisco.
Treasure Island Sustainability Dashboard, San Francisco, California 2008

UNIVERSITY OF CALIFORNIA, DAVIS

Eco-Effective Design Strategies

Davis, California
Completed 2004

Client University of California, Davis

Area 300 acres

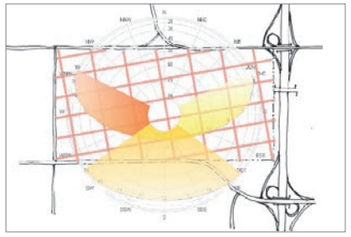
Program Residential building strategies

Awards
ASLA Professional Awards, 2004

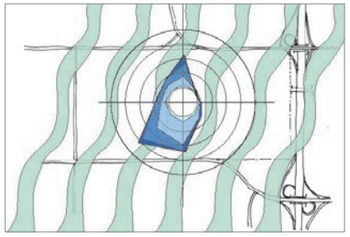
Team
William McDonough + Partners, Master Planner; Moore Iacofano Goltsman, Long-Range Development Planners; Arup, Consulting Engineers

The Eco-Effective Design Strategies were developed as the sustainable design component of the Long Range District Plans (LRDP) for University of California-Davis.

Constitutionally mandated growth in a community unreceptive to growth provided the impetus for new planning paradigms for the campus neighborhoods needed to accommodate 7,000 additional students, faculty, and staff. William McDonough + Partners developed and organized planning and design strategies in the form of a primer on intelligent and sustaining campus expansion with careful exploration of materials and energy flows at the interface between buildings and their surrounding environment. This work represents an early adaptation of green building strategies to the scale of planning to create new patterns of land development.

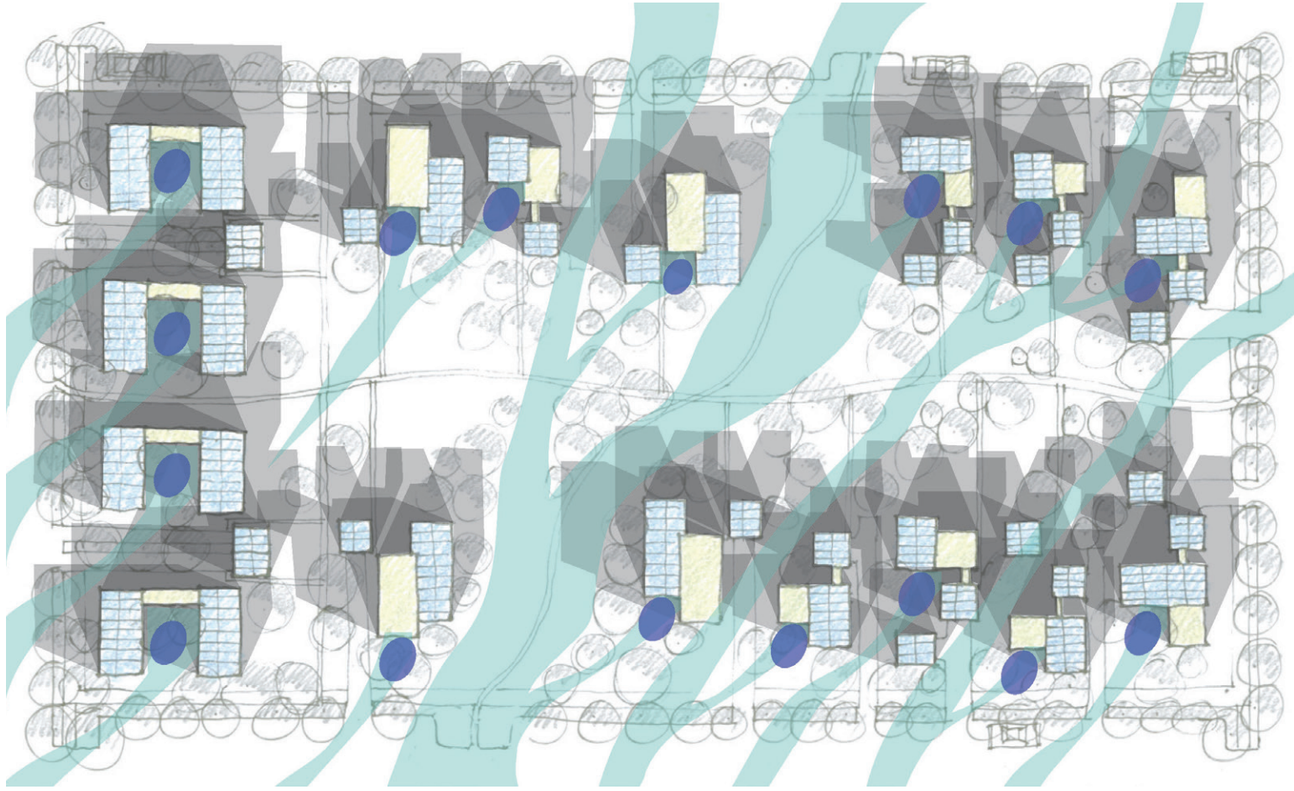


Sun Planning orientation is rotated ten degrees to the east of due south in order to mitigate heat gain from the late afternoon summer sun. This orientation still provides optimal southern exposure for daylighting, winter heat gain and photovoltaics.



Wind Delta breezes—late afternoon winds from the south and southwest flow through the site during the summer months and offer natural cooling opportunities. During the winter months, wind is blocked from the northwest, and dispersed as it blows in from the south.

Water The natural flow of water across the site is toward the north/northeast, away from the creek to the south.



Block Strategies Building placement is optimized by the understanding of natural flows across the property.

UNIVERSITY OF RHODE ISLAND

Sustainable Communities North District Campus Plan

Kingston, Rhode Island
Completed 2002

Client University of Rhode Island

Area 85 acres

Program Sustainable district plan

Team
William McDonough + Partners, Master Planner: Ayers/Saint/Gross, Master Planning Partner

Initially conceived as a district plan focused on locating three buildings, William McDonough + Partners transformed the assignment and guided the creation of both short- and long-term plans for the future growth of the Kingston campus.

The plan expresses the pedagogy of the environmental and health sciences programs through its buildings and landscape. The short-term plan addresses the immediate needs of the district with strategies that demonstrate fiscal responsibility while reducing infrastructure and energy costs. Both plans work to develop a sense of place and an overall identity for the campus and its community and seek to initiate environmental strategies for revegetation, habitat restoration, innovative stormwater retention and recycling, and sources for renewable energy.

The project's success is the fact that the long-term plan—originally targeted for gradual implementation over the next 50 years — has already become the primary guide for URI's ongoing development activities.

VALLEY AT SCHIPHOL TRADE PARK

The Netherlands' National Hub for the Circular Economy

Hoofddorp, the Netherlands

Client Delta Development Group, SADC

Area Schiphol Trade Park -350 hectares, Plot sizes from 500 - 170,000 square meters

Program Five Business Environments: Logistics Zone, Trade Boulevard, A4 Skyline, The Valley, The Campus

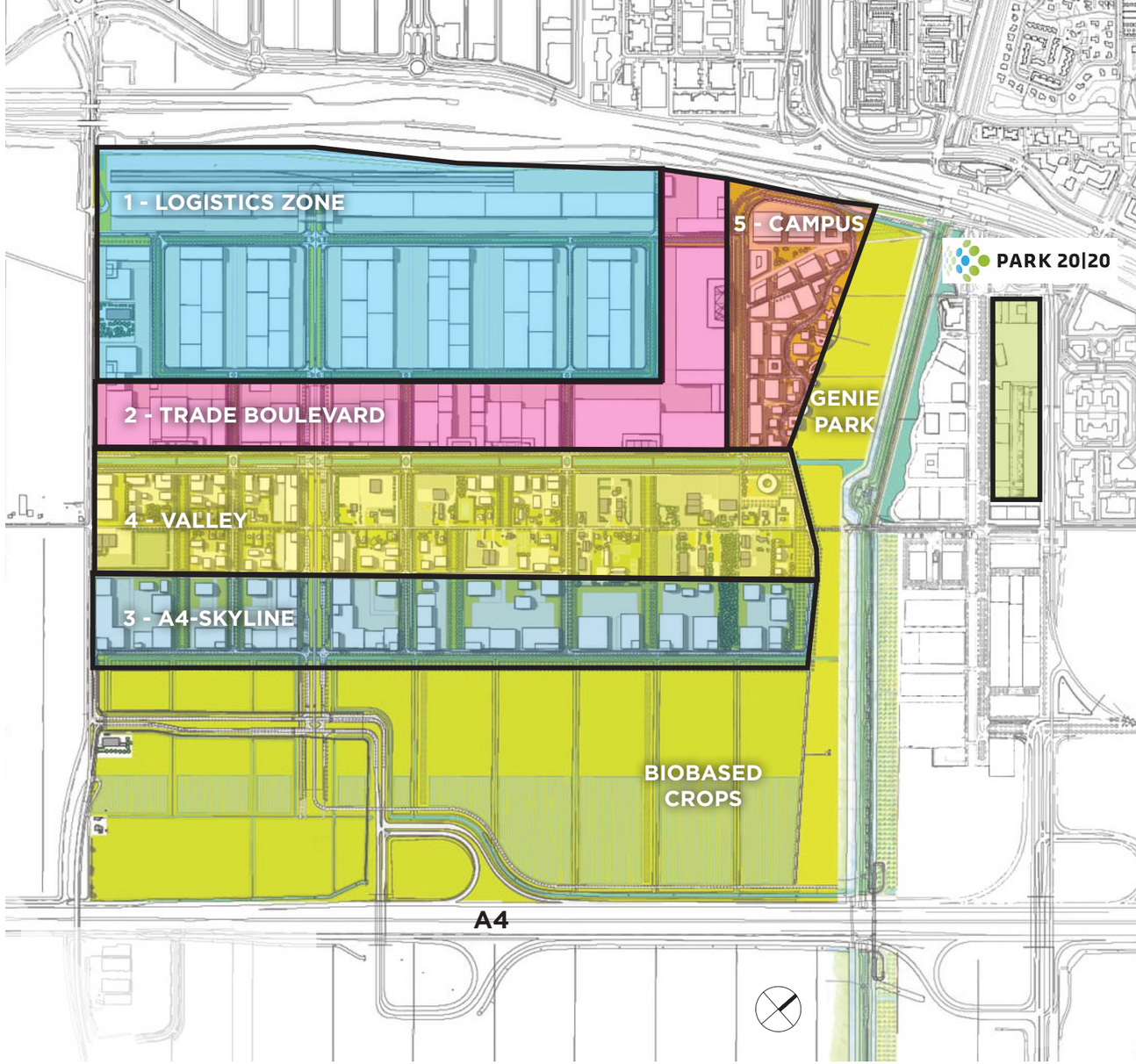
Team William McDonough + Partners, Master Architect; West 8, Landscape Architect

William McDonough + Partners is master architect of Valley at Schiphol Trade Park, the Netherlands' national hot spot for the circular economy. As a demonstration of a practical and profitable transition towards a Circular Economy, Valley aims to become a hub for connecting companies to each other and to their supply chains and clients, owing to its central location with convenient connectivity to multi-modal transport.

"With collaboration in our genes, we in the Netherlands can be front-runners when it comes to being a circular hotspot."

- Prince Carlos de Bourbon de Parme

In contrast to traditional campus concepts, Valley is not centered around a specific market or discipline but instead, offers access to the four pillars that support new business development - Businesses (Market), Academia (Knowledge), Government (Facilitating) and Finance (Enabling). It is the place where the transition towards a Circular Economy will take shape, becoming a positive model for large scale transitions and a blueprint for international adaptation.



VALLEY AT SCHIPHOL TRADE PARK

Phase One

Hoofddorp, The Netherlands

Client Delta Development Group, SADC

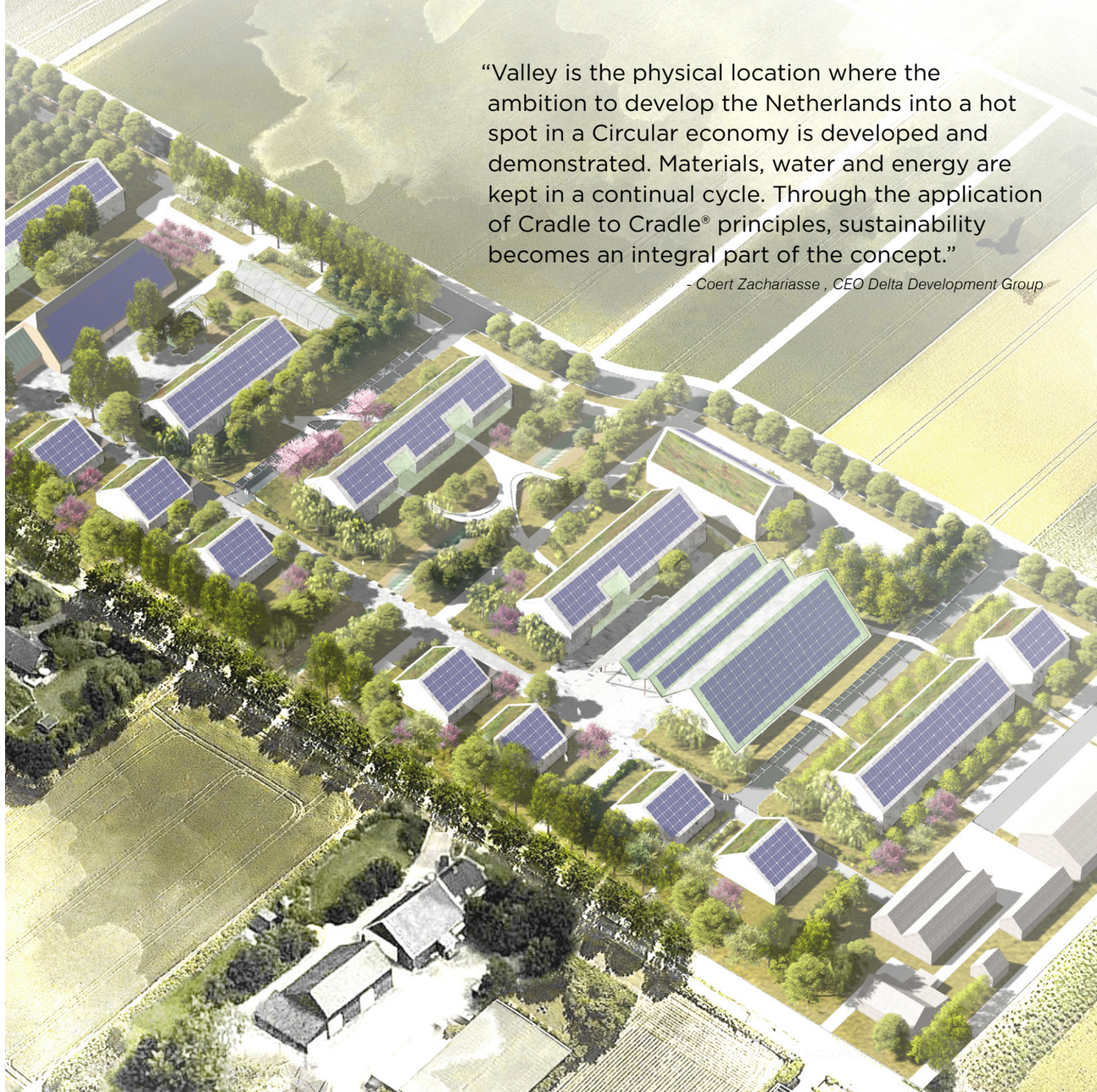
Area 140,000 gross square meters

Program Phase One Innovation Center, offices, showroom, café

Team William McDonough + Partners, Master Architect; West 8, Landscape Architect

With the aim of leading to positive business cases of continuous material loops and endless reuse, William McDonough + Partner's design for Valley is the heart of Schiphol Trade Park and the showcase project where the first demonstration and transition toward a Circular Economy will take shape.

While connecting to the historic roots of the Dutch Polder and cultural landscape, our vision for Valley enables companies to accelerate the development of sustainable profitability through the application of Circular Economy principles in an unparalleled manner and the creation of a truly inspiring work space.



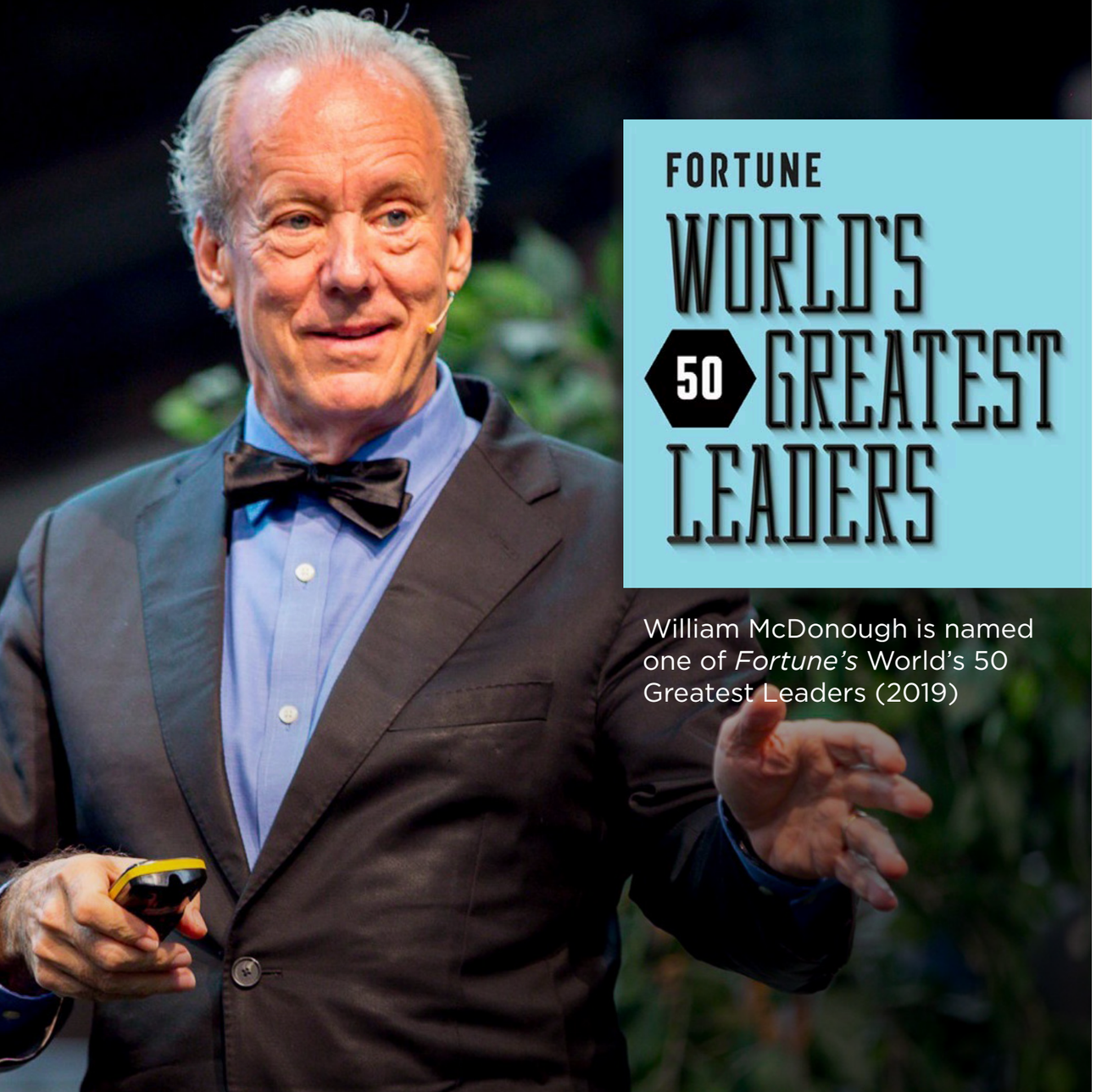
"Valley is the physical location where the ambition to develop the Netherlands into a hot spot in a Circular economy is developed and demonstrated. Materials, water and energy are kept in a continual cycle. Through the application of Cradle to Cradle® principles, sustainability becomes an integral part of the concept."

- Coert Zachariasse , CEO Delta Development Group

“Working closely with Bill McDonough and his team was inspirational and extremely beneficial. The collaborative process yeilded a highly sustainable and beautiful desing—optimized for building performance and representative of our values.”

— Steve Zornetzer, Associate Director, NASA Ames Research Center

Read more about our esteemed architects, planners and designers



William McDonough is named one of *Fortune's* World's 50 Greatest Leaders (2019)

WILLIAM McDONOUGH, FAIA, INT. FRIBA

Architect, Advisor, Author, Speaker

William McDonough has earned the reputation of being "the leading environmental architect of our time." After building the first solar heated house in Ireland (1976), he designed the first "green office" in New York for the Environmental Defense Fund (1985) which set the modern green building movement in motion, inspired the formation of the U.S. Green Building Council and established many of the principles and practices that have come to define sustainable design.

Landmark projects—Herman Miller's "Greenhouse" Factory and Offices; Gap, Inc.'s Corporate Campus (now YouTube's headquarters); and Nike's European Headquarters—were followed by other commissions that have become flagships of 21st century environmental design: Ford's River Rouge, widely celebrated for its 10-acre "living roof"; NASA's Sustainability Base, the "first space station on Earth" and one of the most innovative buildings in the federal portfolio; and Park 20|20 in the Netherlands, a new model of mixed-use, transit-oriented, Cradle to Cradle Design™–inspired urban development.

Time magazine named McDonough "Hero for the Planet," stating that his "utopianism is grounded in a unified philosophy that—in demonstrable and practical ways—is changing the design of the world." In 2019 *Fortune* Magazine named McDonough one of the World's 50 Greatest Leaders for his work in advancing Design for the Circular Economy™. McDonough is co-creator of the Cradle to Cradle Design™ framework and led the founding of the Cradle to Cradle Certified™ Products Program, a global standard for the design of safe, healthy products. He is a business strategist for leading global companies, an advisor to government and international bodies as well as not-for-profits. He was the inaugural Chair of the World Economic Forum's Meta-Council on the Circular Economy (2014-2016), and currently serves on the Forum's Global Future Council on Biodiversity and the Bio-economy.

In recognition of his visionary work, McDonough received the Presidential Award for Sustainable Development (1996), for exemplary leadership and public service; the U.S. EPA Presidential Green Chemistry Challenge Award (2003), for groundbreaking innovations in product development; and the Smithsonian's National Design Award (2004), for outstanding achievement in environmental design. Recently, he was awarded the Fortune Award for Circular Economy Leadership during the 2017 World Economic Forum Annual Meeting in Davos, where he was introduced as "the father of the circular economy."

EDUCATION

Yale University, School of Architecture, Master of Architecture, 1976

Dartmouth College, Bachelor of Arts, Magna cum Laude, Phi Beta Kappa, 1973

World Economic Forum, Award for Circular Economy Leadership, 2017

ASSOCIATIONS

American Institute of Architects, Fellow; Founding Member, Committee on the Environment

American Society of Landscape Architects, Honorary Member

Royal Institute of British Architects, International Fellow

Urban Land Institute, Fellow

U.S. Green Building Council, Charter Member

ACADEMIC

University of Virginia
Dean, School of Architecture and Edward E. Elson Endowed Chair, 1994–1999

Professor of Business Administration & Alumni Research Professor, Darden School of Business, 1999–present

King Abdullah University of Science and Technology (KAUST)
Distinguished Research Professor, 2020–present

Stanford University
Consulting Professor, Civil and Environmental Engineering, 2004–present

Living Archive Subject, Stanford University Libraries, 2012–present

University of Cambridge
Founding member, Sustainability Leadership Council, 2007–present

Yale University
School of Forestry & Environmental Studies Leadership Council, 2002–present

Arizona State University
International Board of Trustees for Sustainability, 2007–present

Instituto de Empresa, Madrid, Spain
Chair, Eco-Intelligent Management Center, 2004–2006

Cornell University
A.D. White Professor-at-Large, 1999–2004

Tongji University, Shanghai
Honorary Professor, 2004

SELECTED HONORS AND AWARDS

World's 50 Greatest Leaders, *Fortune* Magazine, 2019

Award for Circular Economy Leadership, World Economic Forum, 2017

US Green Building Council Leadership Award, 2016

J.N. Darling Conservation Award, National Wildlife Federation, 2014

Rachel Carson Environmental Award, Natural Products Award, 2013

21st Century Visionary Science Leadership Award, U.S. EPA, 2008

Presidential Green Chemistry Award (for work with Shaw Industries/Berkshire Hathaway)
President George W. Bush, 2004

Benjamin Botwinick Prize for Ethical Practice in the Professions, Columbia University Business School, 2003

Hero for the Planet, *Time* Magazine, 1999

United States Presidential Award for Sustainable Development, President Clinton, 1996

National Design Award, The Smithsonian Institution, Cooper-Hewitt Museum, 2004

Hero for the Planet, *Time* Magazine, 1999

CORPORATE LEADERSHIP

Unilever Sustainable Living Plan
Advisory Council, 2018–present

Walmart
External Advisory Council, 2009–2013

SAP CEO Sustainability Advisory Panel
Member, 2011–2012

General Electric
Ecomagination, Board of Advisors, 2008–2009

Dow Jones Sustainability Index
Advisory Board, 2004–present

VantagePoint Capital Partners
Senior Advisor, 2004–present

Cherokee Sustainability Advisory Council
Member, 2004–present

NON-PROFIT LEADERSHIP

Fashion For Good
Co-Founder, 2017

Clinton Global Initiative
Advisor, 2013–2016

Cherokee-McDonough Challenge
Advisor, 2012–present

Cradle to Cradle Products Innovation Institute
Co-Founder, 2009

Healthy Child Healthy World
Advisory Board, 2006–2011

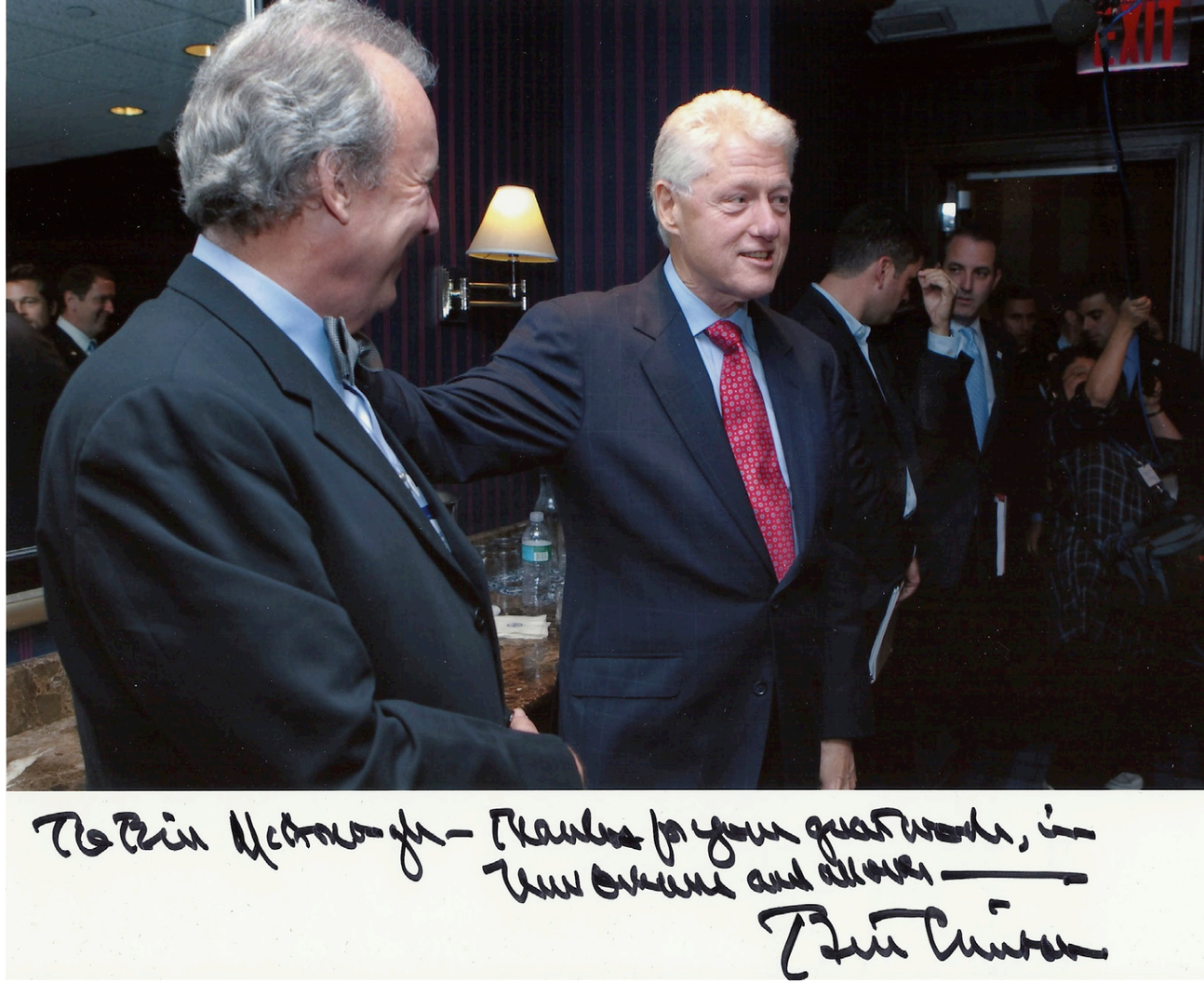
Sustainable Packaging Coalition
Co-Founder, 2005

GreenBlue
Co-Founder, 2002

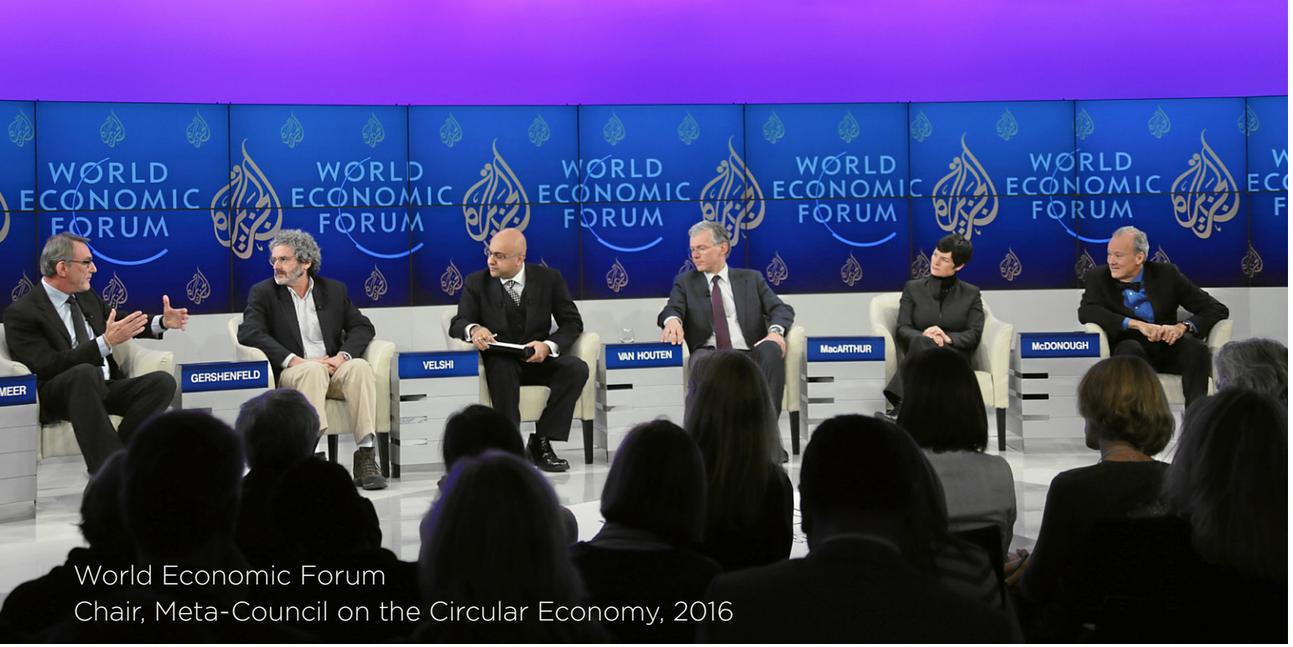
H. John Heinz III Center for Science, Economics, and the Environment
Board of Trustees, 2001–2004

President's Council on Sustainable Development
Special Advisor to President Clinton, 1993–1996

W. Alton Jones Foundation
Board of Trustees, 1992–1996



President Clinton's Council on Sustainable Development



World Economic Forum
Chair, Meta-Council on the Circular Economy, 2016

China-U.S. Center for Sustainable Development
Chair and Member of the Board of Councilors, 1999–2009

INTERNATIONAL LEADERSHIP

World Economic Forum

Member, **Global Future Council on Biodiversity and the Bio-economy**, 2018–present

Member, **Global Future Council on the Future of Environment and Natural Resource Security**, 2016–2017

Chair, **Meta-Council on the Circular Economy**, 2014–2016

Chair, **Global Agenda Council, Future of Sustainable Construction**, 2008–2009

Cultural Leader 2002–2008

Member, **Global Agenda Council on Design**, 2010

United Nations

Sustainable Development Goals
Presenter and Panel Participant, 2014

Conference on the Environment & Development (UNCED: The Earth Summit)
Official Representative for Architecture and City Planning, International Union of Architects and the American Institute of Architects (dual role), Rio de Janeiro, 1992

Official Representative, New York, 1992

China-U.S. Center for Sustainable Development

U.S. Chair Emeritus of the Board of Councilors, 2009–present

U.S. Chair and Member of the Board of Councilors, 1999–2009

China Association of
Circular Economy, 2016

ALASTAIR REILLY, AIA, LEED AP

Design Partner

EDUCATION

University of Virginia, School of Architecture, Master of Architecture, 1990

Syracuse University, Bachelor of Arts, 1987

ACADEMIC

Catholic University of America, School of Architecture, U.S. Department of Energy Solar Decathlon competition - Visiting Critic, 2012

Alastair Reilly brings more than twenty years of architectural and urban planning experience. His focus on research informed design allows him to find innovative sustainable solutions to complex building types. He leads design on WM+P's most innovative sustainable projects, including NASA's Sustainability Base, Google Master planning and workplace strategies, VMware's Corporate Campus, and is involved in a range of design initiatives globally including Park 20|20 in the Netherlands.

Through advanced technology, research and overarching sustainable principles, Alastair brings to bear added financial and ecological value to global projects. He aims to create progressive, eco-effective architecture through a collaborative and multi-disciplinary approach. His experience includes large-scale, high-rise and mixed-use urban developments, campus workplace, hospitality and residential projects. He has also taught sustainable architecture at Catholic University on their entry into the DOE's Solar Decathlon Competition, and advised corporate leaders and business groups including P&G and Google on sustainable strategies. Alastair has extensive project management experience in commercial base building. His background in construction enables him to develop unique design criteria into buildable architecture.

SELECTED PROJECTS

Walmart Home, Corporate Headquarters, Bentonville, Arkansas
Apex Plaza, Apex Clean Energy Headquarters, Charlottesville, Virginia
YouTube Headquarters Expansion, San Bruno, California
HITT Co|Lab, Zero Net Energy, Falls Church, VA
NASA Sustainability Base, AMES Research Center, Moffett Field, CA
Dropbox Headquarters, 333 Brannan, San Francisco, CA
Schiphol Trade Park , The Netherlands
Park 20|20, The Netherlands:
Master Plan, B/S/H/ Inspiration House, FifPro World Headquarters, FOX Vakanties, Bluewater, Plantronics, and the Biological and Technical Pavilions
VMware Corporate Campus, Palo Alto, CA
Google – NASA AMES Research Center Master Plan, Mountain View, CA
Google Corporate Campus, Mountain View, CA
Google Sustainable Design Elements, Mountain View, CA
P&G Manufacturing Facility, Masterplan and Concept design, Utah & China

ASSOCIATIONS

LEED AP Homes, U.S. Green Building Council, Member, 2004–present

SELECTED HONORS AND AWARDS

Young Architects Forum Award, New York Architecture League, (Alastair Reilly), 1994
"Young Architects", Progressive Architecture, 1993

ROGER SCHICKEDANTZ, AIA, LEED AP BD+C

Design Director

EDUCATION

Yale University, School of Architecture, Master of Architecture, 1985

University of North Carolina, Charlotte, Bachelor of Arts, Architecture, 1982

Roger is a Director, project manager and architect at William McDonough + Partners where he has worked for over 20 years. He has led many groundbreaking projects which are well known for their accomplishments in the field of sustainable architecture, including the 2005 LEED Platinum certified Frito Lay Distribution Center and the 10-acre Ford Rouge Truck Plant project, completed in 2003, featuring the world's largest greenroof at the time of completion. Ongoing and recently completed projects include two motorcycle factories and a R&D center in India for Hero MotoCorp, and the new Southside Soapbox factory in Chicago for Method Home. These buildings include a vision for rooftop food production at scale, ranging from experimental hydroponic greenhouses to a commercially viable 75,000 sq. ft. agriculture facility. Through his work at William McDonough + Partners and his frequent speaking engagements, Roger has championed food production as an important component for a regenerative planet. He has worked with the Green Roofs for Healthy Cities organization over many years to develop training courses and exams for the Green Roof Professional certification.

AUTHORED ARTICLES AND PAPERS

"Farming Moves to the Roof", Canadian Property Management, Vol. 30, No. 5, Sep. 2015

Introduction to Rooftop, Brad Temkin; Radius Books, ©2015

"Base Sostenible de la NASA" (NASA Sustainability Base), Habitat Futura, No. 32, Mayo 2011 and in *III Bienal Internacional Arquitectura Sostenible*

"Ecourban, Simbiosis de Metabolismos" (EcoUrban, Symbiosis of Metabolisms), Habitat Futura, No. 1, Abril 2006, and in *Bienal Arquitectura* 2008

SELECTED PROJECTS

Starbucks Roasting Factory, China
Carbon Positive Factory, United States
Georgetown University, Sustainable University of the Future Initiative
Universidad EAN City Campus, Bogotá, Colombia
Hero MotoCorp Neemrana Factory, Jaipur R&D Center, and Gujarat Factory, India
Method Southside Soapbox Factory, Chicago, IL
Feasibility Study for Rooftop Food Production, City of Houston, Texas
Ferrer Research & Development Building, Barcelona, Spain
Karachi School of Business and Leadership, Karachi, Pakistan
City Center DC Sustainability Consulting, Washington, D.C.
National Museum of Science & Industry Collections Center and Master Plan, Wroughton, England
Eco-Template for Distribution Centers, Gazeley Properties Limited, United Kingdom
Frito-Lay Distribution Center, Rochester, NY
Ford Rouge Center Revitalization, Dearborn Truck Plant, Visitor's Center, Airport Hangar, Glass Plant Restoration, and Chairman's Office Renovation, Dearborn, MI
Adam Joseph Lewis Center for Environmental Studies, Oberlin College, Oberlin, OH
Nike European Headquarters, Hilversum, The Netherlands
University of Michigan, School of Natural Resources and Environment, Ann Arbor, MI
Herman Miller "GreenHouse" Factory and Offices, Holland, MI
Howard Heinz Endowments Offices, Pittsburgh, PA

ASSOCIATIONS

LEED® Accredited Professional, U.S. Green Building Council
Member, American Institute of Architects/Registered Architect
Green Roofs for Healthy Cities, Green Roof 201 training course committee
Green Roof Accredited Professional, exam committee

JOSÉ ATIENZA, WELL AP

Design Director

EDUCATION

Princeton University School of Architecture, Master of Architecture, 2000

University of Virginia School of Architecture, Bachelor of Science in Architecture, 1995

ACADEMIC

University of Virginia School of Architecture - Lecturer, 2007 -2012

National Cheng Kung University, Tainan City, Taiwan - Invited Critic, 2018

José's design leadership spans over 18 years of professional experience in the realization of diverse architectural typologies at multiple scales that include award-winning commercial, mixed-use, multi-family and single family custom residential, academic, hospitality, aviation, and urban design projects throughout the U.S. and Europe. His ability to lead teams towards materializing primary concepts into unique and innovative solutions that embody project goals while integrating site, form, and systems has led to many successful collaborations.

Viewing issues of sustainability both as a source of innovative design solutions and as a fundamental measure of quality, José's design work seeks the holistic balance and integration of both constructed and native human, environmental and technical ecologies. With a broad view of design at all scales as signals of human intention, José believes in the importance of a collaborative and multi-disciplinary approach to achieve higher levels of design innovation. During the past 10 years, José has led the design and realization of eight innovative buildings at Park 20|20 in the Netherlands, the first Cradle to Cradle-inspired development.

SELECTED PROJECTS

Grunewald Mixed-Use Project, Kirchberg Plateau, Luxembourg
Together Tower, Hoofddorp, The Netherlands
Plantronics EU Headquarters, Hoofddorp, The Netherlands
CloudForest Mixed-Use Project, Hoofddorp, The Netherlands
The Valley at Schiphol Trade Park, Hoofddorp, The Netherlands
AltaSea, Port of Los Angeles, California
La Vie Resort, St. John USVI
Catalina Island Strategic Masterplan, California
Park 20|20, Hoofddorp, The Netherlands
Isola (Google's Italian Headquarters), Milano, Italy
Greenbridge Mixed-Use, Chapel Hill, North Carolina
Boutique JACOB Campus Master Plan, Montreal, Canada

ASSOCIATIONS

Energy Efficiency Emerging Technologies (E3T) Commercial Building Technical Advisory Group (COMTAG), Washington State University Extension Energy Program, Bonneville Power Administration, Member, 2014

SELECTED HONORS AND AWARDS

Abaco Y Ciudad' Travel Fellowship, Spain Ministry of Culture, 2000
University Fellowship, Princeton University, 1998

JOHN EASTER
Director

EDUCATION
University of Virginia, School of Architecture, Master of Architecture, 1991

University of Virginia, Bachelor of Science in Architecture, 1986

John is a Director at William McDonough + Partners, where he has practiced for over twenty two years. He works closely with William McDonough on the design of commercial, institutional, and residential projects, many of which have earned awards for the firm.

John's project experience covers a wide range of scales throughout the globe, from small single family home prototypes in the United States to factories in India and large community designs in China. John's unique combination of talents has played a crucial role in shaping the firm's transformation of land-planning and development processes. He has led the day to day design of several large-scale commercial projects abroad, including Nike European Headquarters and IBM Corporate Offices in Amsterdam; Ford Amazon Workplace in Camacari, Brazil; and Ecourban 22@ in Barcelona, Spain. The common thread to this body of work has been devotion to McDonough's Hannover Principles and the Cradle to Cradle® Design Framework.

SELECTED HONORS AND AWARDS
Green Roof Award of Excellence, Green Roofs for Healthy Cities, 901 Cherry Offices, 2003
Top Ten Green Projects, AIA Committee on the Environment, Adam Joseph Lewis Center for Environmental Studies, Oberlin College, 2002
Award of Excellence, Washington, DC AIA, Nike European Headquarters, 2001
Award of Excellence, Washington, DC AIA, 901 Cherry Offices, 2000
American Architecture Award, The Chicago Athenaeum, Adam Joseph Lewis Center for Environmental Studies, Oberlin College, 1999
Business Week/Architectural Record Award, 901 Cherry Offices, 1998

SELECTED PROJECTS
YouTube Headquarters, San Bruno, CA
Apex Clean Energy Headquarters, Charlottesville, VA
Hero MotoCorp:
- Garden Factory, Neemrana
- Global Center for Innovation & Technology, Jaipur
- Gujarat Factory

Universidad EAN City Campus, Bogotá, Colombia
Method Southside Soapbox Factory, Chicago, IL
Ferrer Research & Development Building, Barcelona, Spain
BioPol Laboratory Tower, Barcelona, Spain
B/S/H/ Inspiration House at Park 20|20, Hoofddorp, The Netherlands
Park 20|20 Master Plan, Beukenhorst Zuid, The Netherlands
Ecourban 22@ Mixed-Use Development, Barcelona, Spain
American University School of International Service, Washington D.C.
Nike European Headquarters, Hilversum, The Netherlands
PG&E Energy Center, Treasure Island, San Francisco, CA
Fokker Corporate Park Concept Plans for UPC, Amsterdam, The Netherlands
IBM Corporate Offices, Riekerpolder, Amsterdam, The Netherlands
Adam Joseph Lewis Center for Environmental Studies, Oberlin College, OH
Eco-Template Master Plan, Magna Park, Neu Eichenberg, Germany
Eco-Template for Distribution Centers, Gazeley Properties Limited, UK
Hot Springs New Town Concept Plan, Daxing, Beijing, China
Ford Rouge Center Revitalization, Dearborn Truck Plant, Visitor's Center, Glass Plant Restoration, Dearborn, MI
Coffee Creek Center Master Plan, Chesterton, IN

ERIC ROSS, AIA, NCARB

Project Architect

EDUCATION

Savannah College of Art and Design, Master of Architecture

Eric is a registered architect with over 20 years of experience in the building design and construction industry. After four years of service in the Army, he earned both Bachelor's and Master's Degrees in Architecture at the Savannah College of Art and Design. Eric joined William McDonough + Partners in 2013, with a background in hospitality, commercial and high-end residential projects. Since joining WM+P his work has been centered around the integration of Cradle to Cradle thinking at all levels of a given project. The result has been a series of beautiful and compelling case study projects that embody regenerative design and development principles across scale and typology.

For the last seven years his primary areas of research have been focused on the integration of Circular Economy and Cradle to Cradle Design strategies on a project-specific scale. Specifically, he focuses on employing methodologies to extend the life span of buildings and their components through the use of Design for Disassembly and adaptability and the inclusion of Cradle to Cradle Certified™ products at increasing scales. In addition, Eric has had a parallel focus on lowering embodied carbon beyond industry-set benchmarks through the use of Mass Timber for building structures and the development of a design workflow informed by an iterative carbon footprint feedback loop.

SELECTED PROJECTS

YouTube Headquarters Expansion, San Bruno, CA

While the entitlement project was initially designed as a build-to-suit for The Gap Inc, the facilities are now home to YouTube and embrace design for disassembly and next use methodologies. YouTube's Headquarters is currently under construction to expand its campus.

Apex Plaza, Clean Energy Headquarters**,** Charlottesville, VA

The Apex office will be wood structure, optimized in its carbon footprint, and bring the company's more than 200 renewable energy experts into one building designed for collaboration, health, and wellbeing.

HITT Co|Lab, Zero Net Energy, Falls Church, VA

Designed as a flexible and adaptable high-performance building for HITT, a leading national construction company, Co|Lab promotes engagement with clients and team members through hands-on experiences and direct observation.

Carthage Farm, Zero Net Energy, TN

SELECT CLIENT LIST

Annenberg Foundation
American University
Bosch Siemens
Catalina Island Conservancy
Cherokee Investment Partners
China U.S. Center for Sustainable Development
City of Chicago
City of San Francisco
Delta Development Group
Equity Office Properties
Ferrer Grupo
FifPro
Ford Motor Company
Fox Vakanties
Frito-Lay
Gap Inc.
Gazeley Properties UK
GE Ecomagination
General Services Administration (U.S.)
Georgetown University
Google
Heinz Family Foundation
Herman Miller
Hero MotoCorp
Hines
IBM
Johnson Family Foundation
Kilroy Realty Corp.

< Universidad EAN
Bogotá, Colombia
Completed 2020

WILLIAM McDONOUGH + PARTNERS
architecture and community design

www.mcdonoughpartners.com

1 This goal statement was created while writing *The Upcycle: Beyond Sustainability—Designing for Abundance*, William McDonough and Michael Braungart, published in 2013 by North Point Press, a division of Farrar, Straus & Giroux.