
IDEM

June 12, 2019

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Agenda

- Roche Sustainability Directives
 - Impact on Design Elements
- Strategic Site Investments
- Landscape Sustainability Strategy

Sustainability Roche Directives

K6 and K18

Roche K6 & K18 Directives - commitment to Sustainable Development

§ K6: Substances Affecting the Ozone Layer and Climate

- Ø Roche's responsibility and intention to avoid any actual or potential unacceptable risk arising from the use of substances which deplete the ozone layer and or affect the climate
- Ø Policy with respect to the use, handling and disposal and gradual elimination of these compounds within a reasonable period of time
- Ø Gradual phasing out of Halogenated hydrocarbons – goal is to replace all such substances that deplete the ozone layer or contribute to the global warming effect

§ K18: Energy Conservation

- Ø Supports efficient, appropriate and cost-effective energy use
- Ø Optimization of building energy performance – building envelope & components (HVAC systems, pumps, electrical motors, lighting, etc), U values, transparency, reflectance surfaces
- Ø Passenger vehicles (fuel efficient)

Application of Sustainability Directives

Design elements

- § Campus chilled water system
- § Daylighting in occupied spaces yet limits on amount of glazing
- § LED lighting
- § U value requirements for exterior skin
- § Occupancy sensors
- § Passive and active sun shading elements
- § Solar panels for hot water heating
- § Car charging stations
- § Purchase renewable energy from IPL

Site Transformation

Strategic Site Investments



Laboratory Building

New building consolidates labs from multiple buildings

Opened: September 2015

- Consolidates six labs across five buildings
- Approximately 60,000 square feet on two floors
- LED lighting, occupancy sensors, chilled beams, passive sun shading



Parking Garage

Consolidates surface parking lots on north side of campus

Opened: January 2016

- 1,500 vehicles
- Staff and visitor parking
- Electric car charging
- LED Lighting, occupancy sensors, reflective surfaces



Forum

New employee amenities building exceeds expectations

Opened: May 2016

Visitor welcome center and central employee gathering space

- Centralized café, employee fitness & wellness centers, conference & meeting spaces
- Exterior motorized sun shading, chilled beams, LED lighting, occupancy sensors
- Solar Hot Water System: 80 solar thermal hot water panels, mounted on roof at 23 degree tilt
- Advanced kitchen heat recovery and perimeter radiant heat
- Clerestory windows to maximize daylight into center of building



Office Building

New commercial office building now open

Opened: September 2016

- New Alternative Workplace environment office space
- Consolidates Roche Diagnostic's North American commercial operations from five buildings to one
- Sustainable design measures to consume less energy per square foot than previous space.
- LED lighting, occupancy sensors, chilled beams, passive sun shading, daylight harvesting on perimeter of floor plates



Learning & Development Center

State-of-the-art customer training center

Opened March 2017

90,000 sf education center that trains 1,500 customers and host approximately 400 healthcare professionals annually

- 50% larger than current facility, sustainable design measures to consume less energy per square foot
- Exterior motorized sun shading, chilled beams, LED lighting, occupancy sensors
- Daylight roof monitors to maximize natural light into the center of the building



Chiller Building

New chiller building for warehousing refrigeration/freezers

Opened: 2014

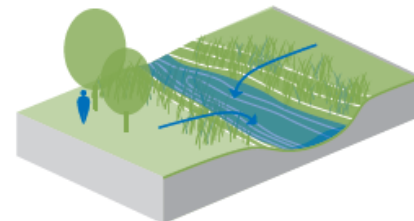
- Warehouse refrigeration
- Warehouse freezers



Landscaping Strategy

Embracing Our Indiana Landscape

- Green infrastructure and storm water Best Management Practices apply to all buildings and open space projects



Promote infiltration and cultivate more lush and varied plant palette

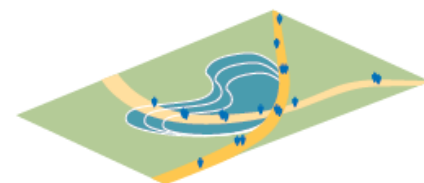
Reduction of impervious surfaces



Bioretention



Vegetated swales and filter strips



Integrate pedestrian circulation with movement of runoff/rainfall

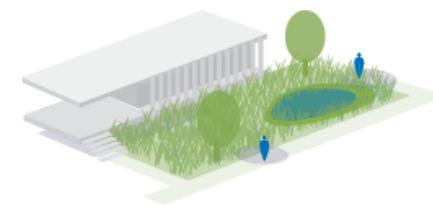
Constructed wetlands



**Native Re-Vegetation
Soil Restoration**



Vegetated roofs



Design water features in relation to the architecture, to create meaningful active spaces

Landscaping Strategy Applied



Native Vegetation:

Indigenous plants are crucial to restoring local ecosystems, increasing biodiversity, and providing ideal habitat for wildlife.



Army Corps of Engineers Waterway (Heath Ditch)

Water stewardship for a sensitive landscape:

Ensure water consumption is reduced and managed sustainably and responsibly.

Landscaping Strategy Applied



Benefits of choosing native plants:

- *Reduces the need to use chemical fertilizers, pesticides, and other toxic lawn maintenance treatments.*
- *Creates more opportunities for local insects, pollinators, and birds to thrive in the landscape.*
- *Saves more water, as less irrigation is needed.*
- *Strengthens the character of the site by integrating it with the surrounding landscape.*



Native prairie plantings and no-mow grasses



Rain Gardens and bio-swales

Summary

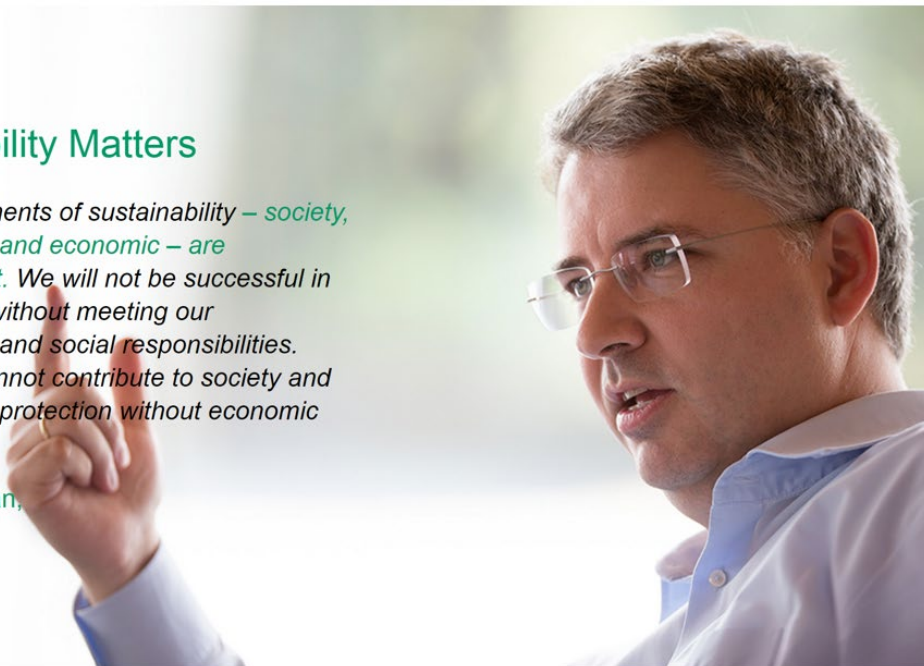
Sustainability Matters

Roche commitment to Sustainability embedded in the corporate culture.

Sustainability Matters

The three elements of sustainability – society, environmental and economic – are interdependent. We will not be successful in the long term without meeting our environmental and social responsibilities. Equally, we cannot contribute to society and environmental protection without economic success.

Severin Schwann,
Roche CEO



Benefits of Investment:

- § Sustainable buildings and landscape support an attractive place to work to retain talent
- § Work productivity – natural light and its effects
- § Consume less energy
- § Utilities cost savings
- § Sustainable leader in industry

Doing now what patients need next