natural systems utilities





Microsoft Campus

Silicon Valley, California











BLACK | GREY | RAIN | STORM | DESIGN | BUILD | OPERATE

Working with best-in-class partners we were able to fulfill Microsoft's desires to create its smartest and greenest office yet by developing a world class water management system for their Silicon Valley campus. Through innovation, collaboration and expertise we were able to create a one of a kind solution to fit their vision.

Challenge

As an environmentally concerned organization, Microsoft was seeking a strategic partner to help them create a world-class water system and surpass anything seen before in Silicon Valley. With Silicon Valley's innovation spirit in mind, they had the goal of becoming the first tech campus to achieve net zero water certification. The challenge was to create a sustainable solution for the 2000+ employees, 15 acre campus and 643,000 square feet of office space.

POTABLE WATER CONSTRAINTS	SEWAGE TREATMENT CONSTRAINTS
□ REGULATORY MANDATES	COMBINED SEWER OVERFLOW (CSO)

Highlights

- Water will be collected, filtered and stored for reuse throughout the year.
- Rainwater will be harvested and used for campus landscape.
- Treated wastewater from campus kitchens and bathrooms will be reused for irrigation and toilets on campus.
- Stormwater will be retained on the living roof and collected from paved areas.

The Solution

To achieve Microsoft's ambitious goals, Natural Systems Utilities design team had to think outside the box and create a custom solution that fulfilled the clients water needs and met its sustainability desires.

Working with partners we were able to reimagine water and implemented a water reuse system (hybrid wetland/ membrane bioreactor) that integrated with the rain water and stormwater systems seamlessly.

The system is capable treating 50,000 gallons per day to serve Microsoft, Xbox, PowerPoint, Outlook. com and other campus employees.







Cooling Tower









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Achievements

Beyond drinking fountains and sinks, not a drop of water for more than 2,000 employees, 15 acres of landscape, and 643,000 square feet of built space will come from municipal sources.









"Many buildings start with a design concept and work backwards to mitigate harm to the local ecosystem and natural resources. Our design started with a different goal in mind – could we design a building that was actually beneficial and restorative to the local ecosystem? We think we've achieved just that."

Darren Lombardi, design and construction manager, Microsoft Silicon Valley