

Technology & General Services Department

Building Stakeholder Engagement in Sustainability

October 2014



Steve Sakach, Chief of Facilities Operations

The IMF is an international financial institution. It is a specialized agency in the United Nations system but has its own charter, governing structure, and finances.

188 Member Countries

HQ Facilities located in Washington, DC

Mission: monitor the world's economies, lend to members in economic difficulty, and provide technical assistance

Advises governments on their policy – does not generally advocate trans-national policy

Our Campus

~ 2 Million gross sqft

40yrs old

**Undergoing major occupied
renovation**

LEED Gold EB: O+M (2009)

LEED Gold NC (2018??)



~ 950,000 gross sqft

~10 yrs old

LEED Gold EB: O+M 2009

LEED Platinum EB: O+M 2013

The Concordia – The IMF's extended stay facility

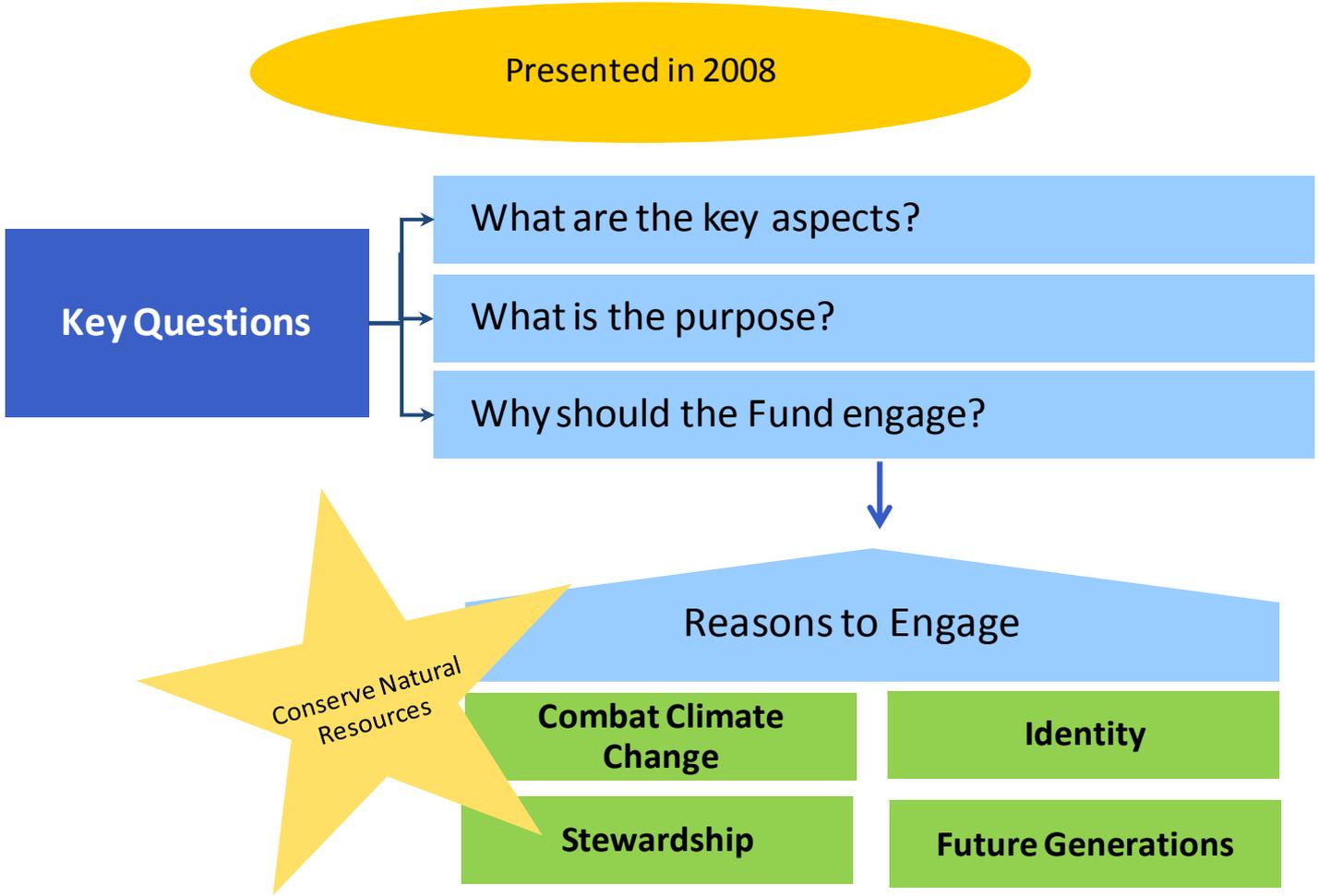


95,000 gross sqft

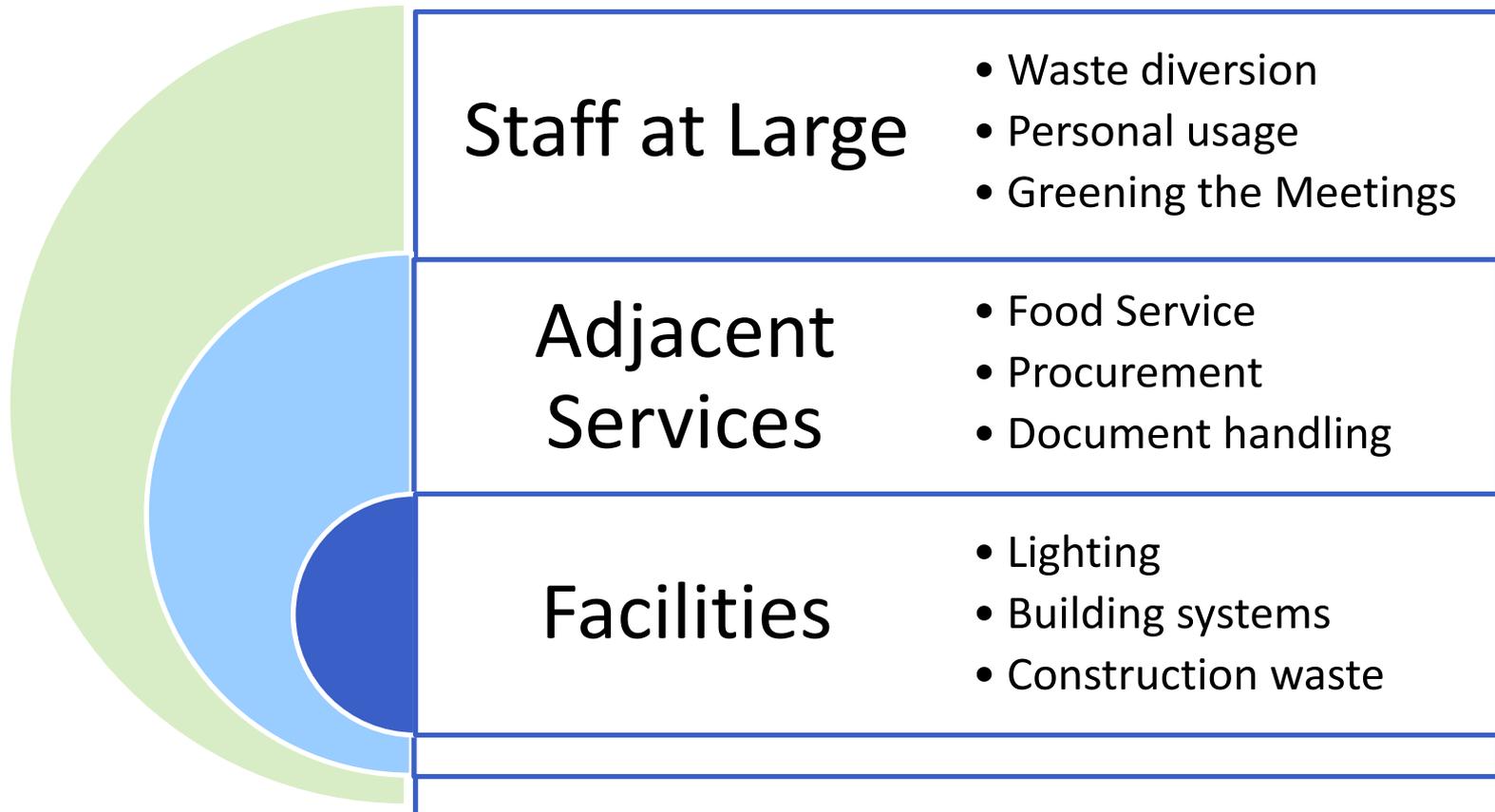
Originally built in 1968

LEED Gold NC 2014

Sustainability is a grassroots effort. In 2008, Facilities asked itself key questions about environmental sustainability. These questions are still valid.



We proceeded to mount a Facilities-centric “insurgency”

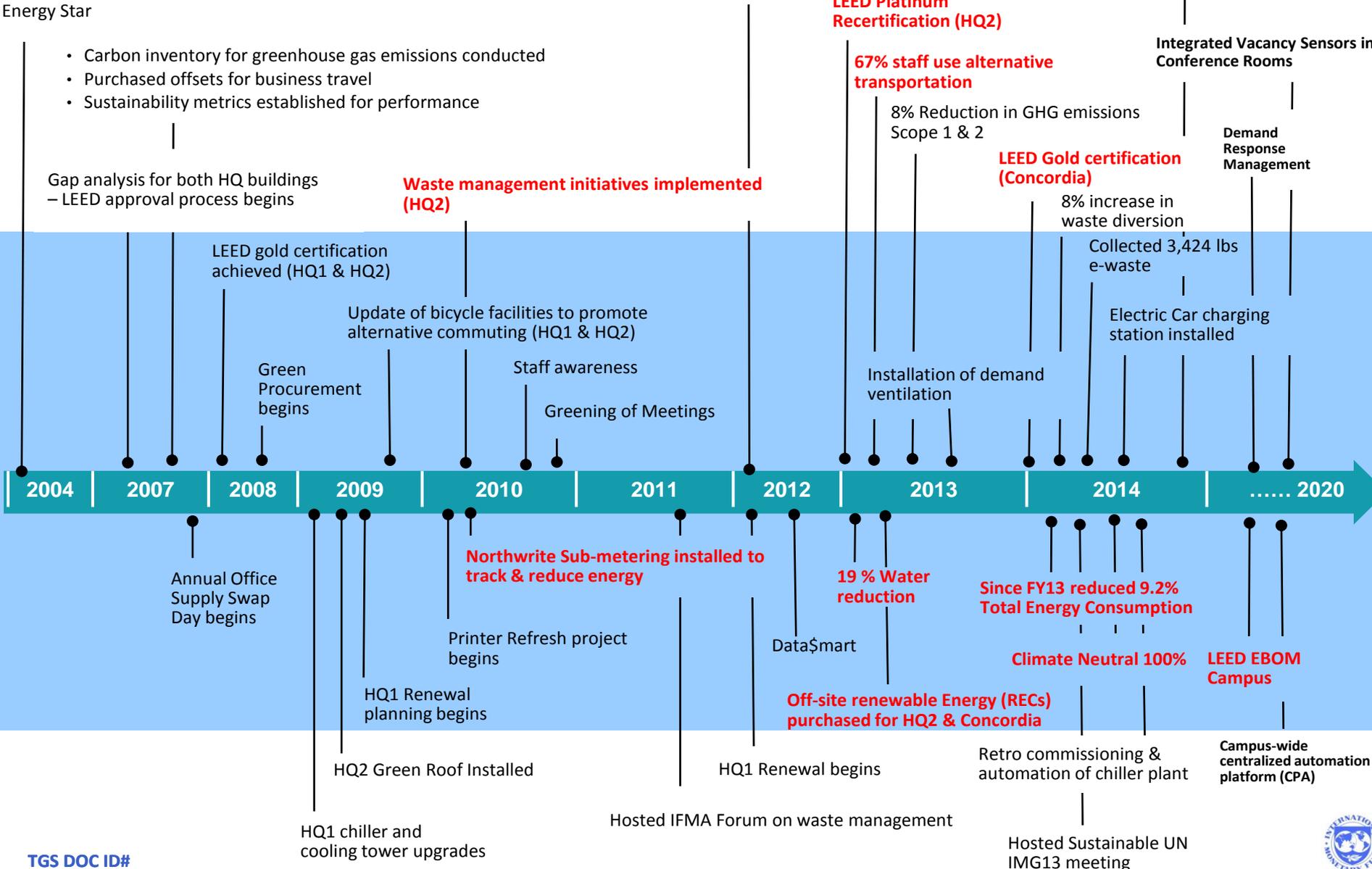


Our Sustainability Journey (so far...)



Journey%20To%20Sustainability-HD.mp4

Since 2004, the IMF has been actively engaged in Environmental Sustainability



Sustainability for the IMF is a core value. Our span of influence and control rests in how we operate and maintain our facility.

Create healthy buildings for all occupants

Manage and assess the impact of IMF's operations and facilities

Protect and enhance the local and global environment

Set quantitative goals for environmental performance

Monitor our environmental progress

Green buildings aren't actually sustainable unless they sustain the staff that provides our core services

Over the past year, Facilities has worked diligently to reduce our environmental impact on natural resources through smarter operations

Combined Data for both HQ Facilities FY13-FY14	
Energy	<ul style="list-style-type: none">• Reduced Energy consumption by 5%
Water	<ul style="list-style-type: none">• Reduced 2%• Saved 686,721 gallons
Waste	<ul style="list-style-type: none">• Diverted ~ 600 tons of waste in FY14 alone



ROI through improved operation & maintenance



Large equipment purchases



The Fund also promotes environmental and social responsibility in other ways

Green Roof



- Reduced stormwater by 31%
- Reduces heat island effect
- Insulates and protects building
- Promotes biodiversity

Waste Management



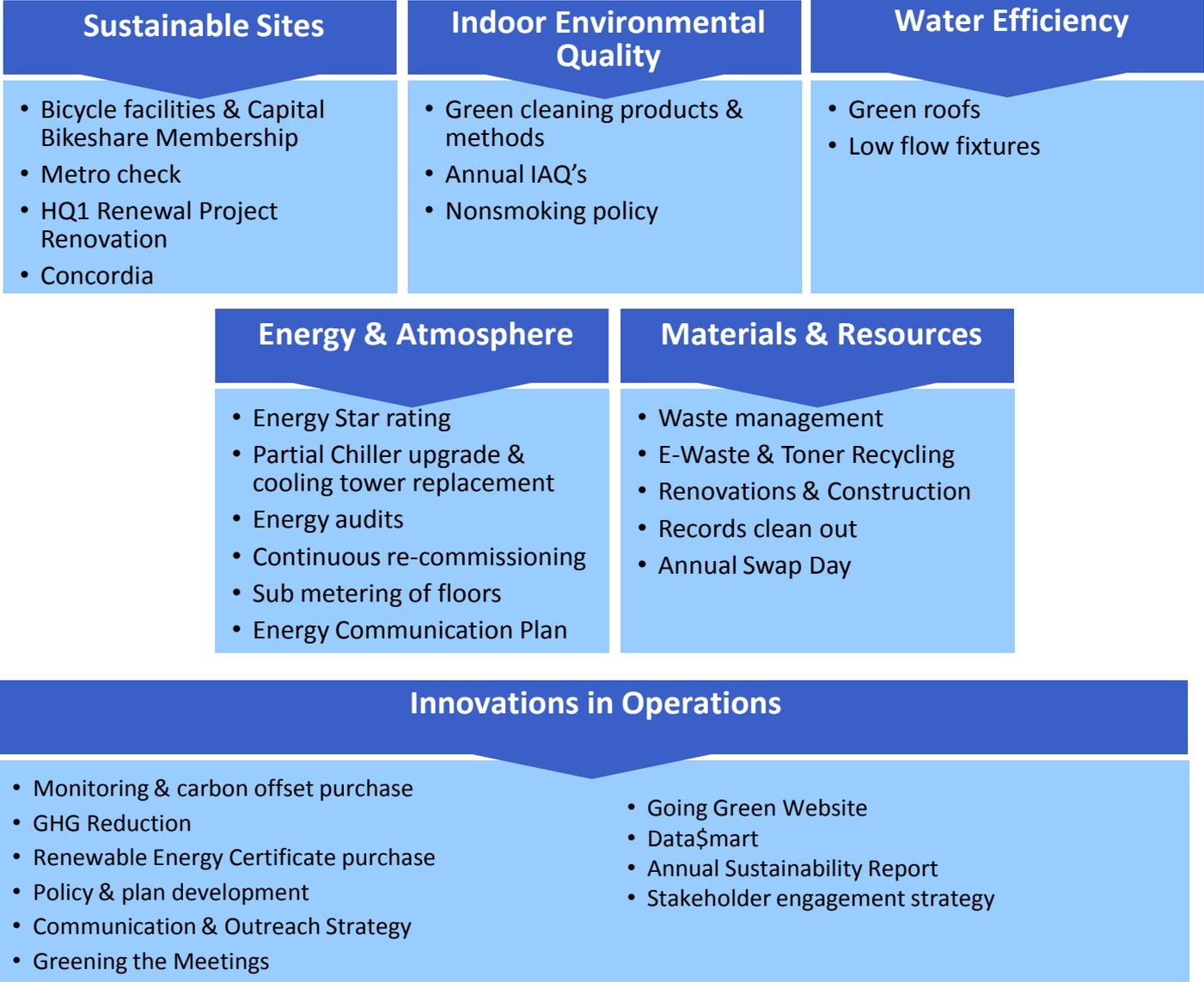
- HQ wide composting/recycling program
- Continuous improvement & engagement

Alternative Commuting



- More than 65% of staff use alternative transportation to commute to work (metro, commuter bus, Slug Lines, bike, walk)

The USGBC LEED rating system was and continues to guide the Fund's sustainability program framework



Case Study: Waste stream diversion

In 2009, HQ1 and HQ2 became LEED certified; HQ1 achieved 1 point for LEED Materials & Resources Credit 7.1 for ongoing consumables, while HQ2 did not.

LEED

2009 Recycling Rates:

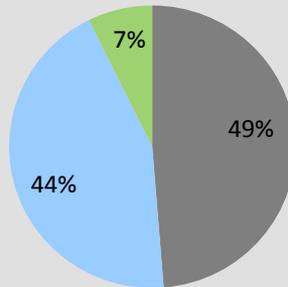
- HQ1 - 57%
- HQ2 - 24%

50% must be diverted from landfill to receive LEED Credit

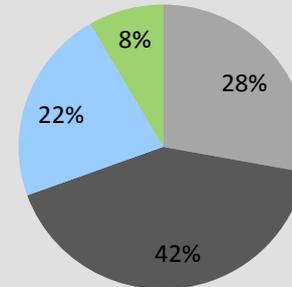
Average Data Prior to Scale-up (2011)

- HQ2 Landfill
- FF Landfill *
- Recycle**
- Compost

HQ1



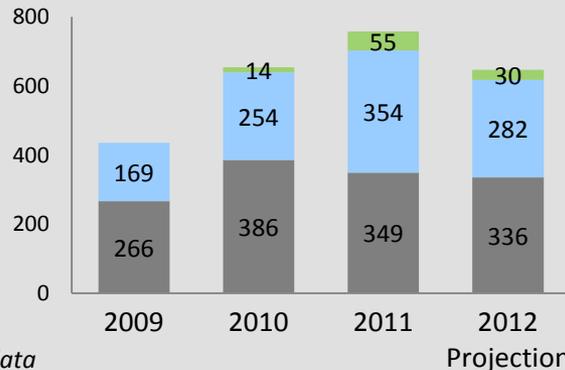
HQ2



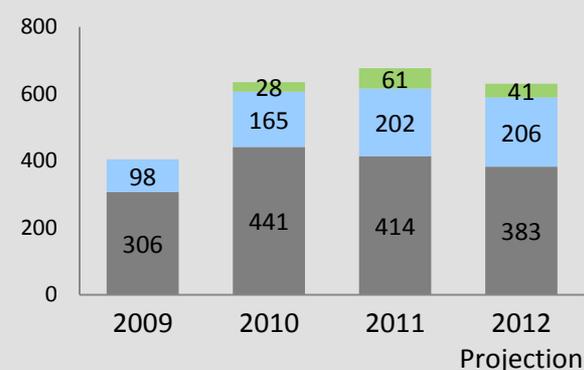
Overall Waste Volume in tons (2009-2012)

- Landfill
- Recycle**
- Compost

HQ1



HQ2



Projections based on Jan-Apr 2012 data

* Data for restaurant tenant is estimated at 60% of landfill waste. Further investigation is underway.

**Recycling includes glass, plastics, aluminum, paper, cardboard and confidential shredding.



The Fund's long term strategic objectives was to reduce waste going to landfill from all building operations; we anticipated the following outputs by implementing a recycling and composting program.

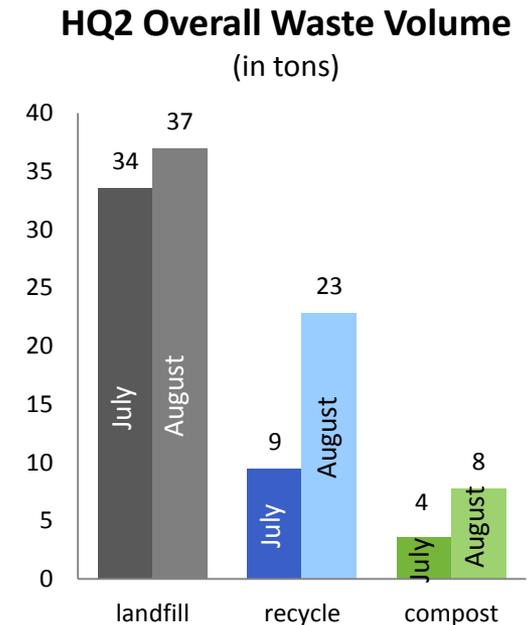
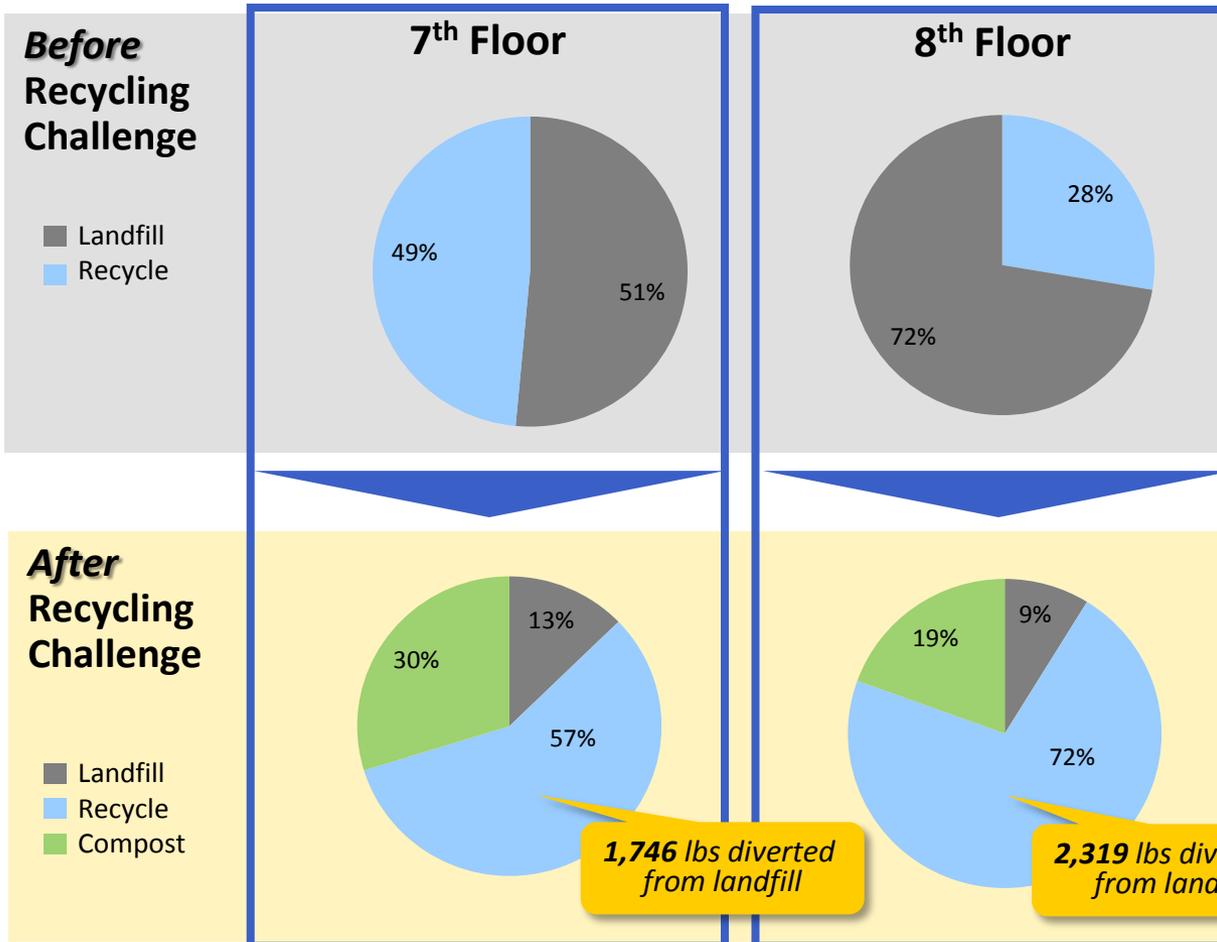
Implement an efficient recycling program without increasing cost and potentially reducing

Achieve LEED credit for 2012 HQ2 recertification

Build awareness for HQ1 staff who cycle through HQ2 during HQ1 Renewal process

Develop a scalable and transferable program for post-HQ1 Renewal

In August 2011, a pilot study was conducted on two floors of HQ2 aimed at increasing staff awareness about separation methods and reducing the volume of landfill waste; results showed a significant improvement in recycling and composting at the desk side.

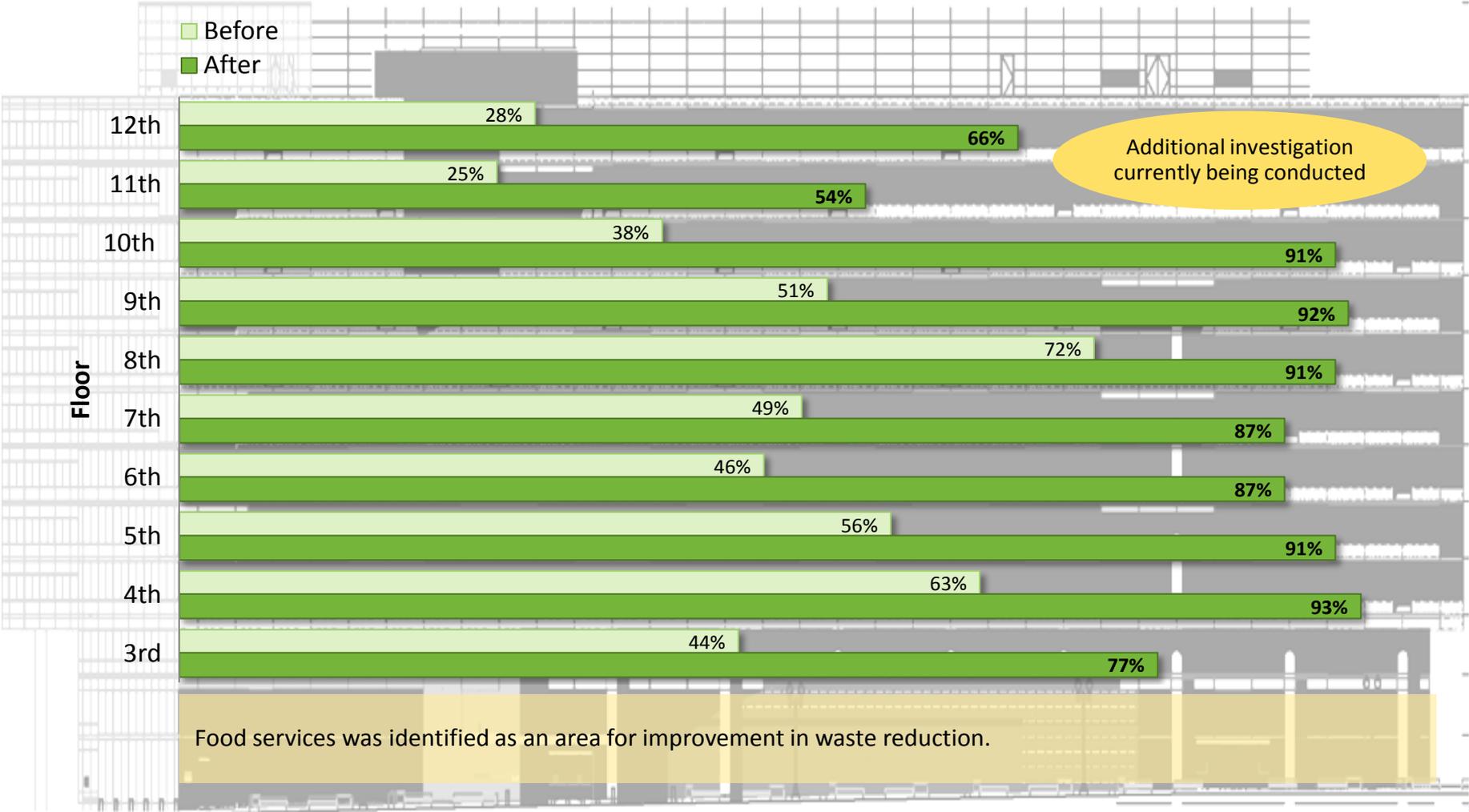


Snapshot of HQ2 during the pilot study: all waste streams increased, especially recycling.

The successful desk side method from the pilot initiated a systematic rollout in HQ2, which increased the desk side recycling rate by an average of 87%.

Recycling & Composting Rates in HQ2

(before and after desk side recycling program)



Eight weeks of continuous LEAN or Six Sigma training assisted in our food operations to identify further improvements.

When a problem is understood, it's easy to improve

Observe the problem to determine the 5 Whys

Map out the process to evaluate tasks, sequences, and relationships

Collect Data and use the Pareto Principle: 80% of problem is due to 20% causes

Experiment with countermeasures

Brainstorm for potential solutions without judgment

Plan – Do – Check - Act

Through waste audits and continuous review revealed that food operations required attention, which were addressed by implementing several low cost counter measures.

Issues

Disconnect in color coded recycling bin system

Language barriers

Space limitations

Disposable products

Counter Measures

Implemented LEAN techniques

Introduced new labels and signage

Standardized color coding of bins

Results

Sorting accuracy improved significantly by kitchen staff



Through the pilot and building wide rollout of the recycling program, several factors were identified that contributed to the success of the program

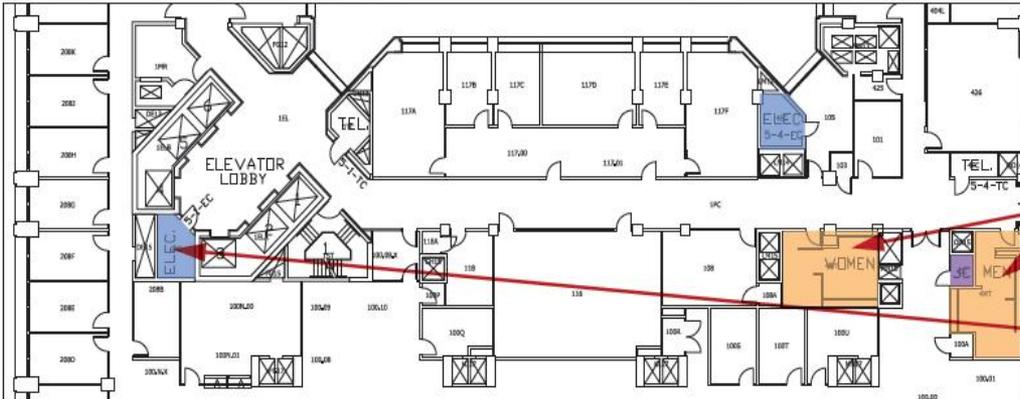
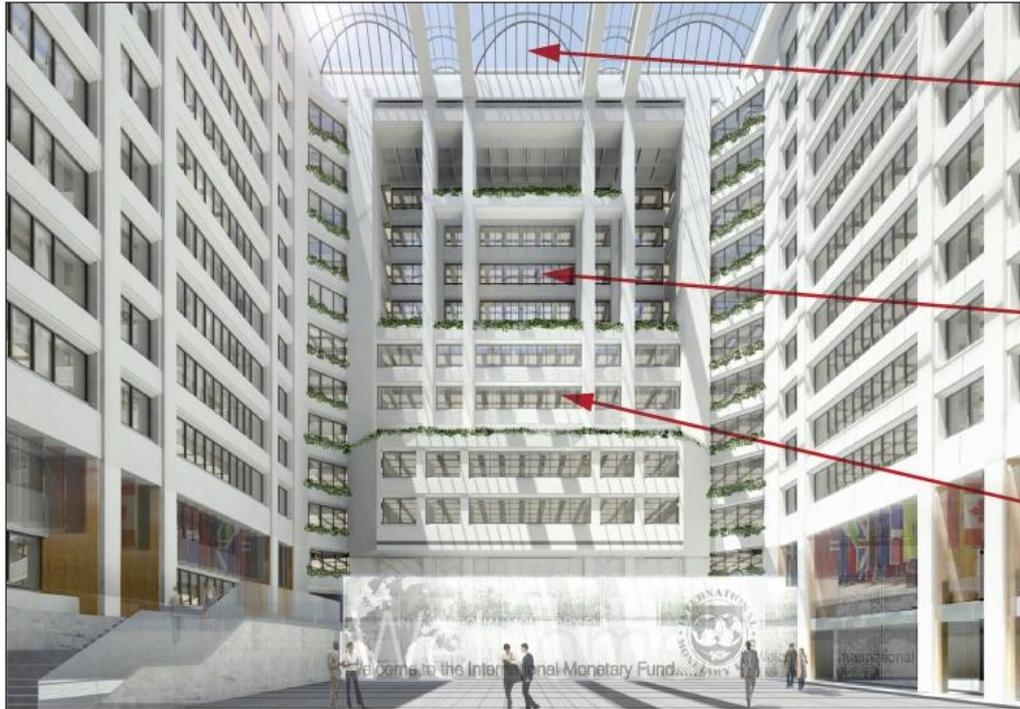
✓ Sizes and colors are important to communicate a message

✓ Opportunities are found in unexpected places

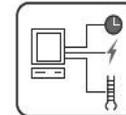
✓ Human behavior is always a factor

**Where are we headed
next?**

HQ1 Renewal Project: 47% Reduction in Energy



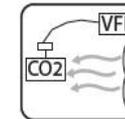
Daylight



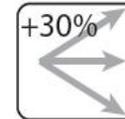
Smart Building Management Systems



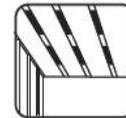
Occupancy Controls



Outdoor Air Monitoring



Increased Outdoor Air



Daylight Linked Lighting Control



Commissioning



Reduced Ozone Depletion Potential



Environmentally Responsible:
• Recycled Content
• Regional Materials
• Low-Emitting Materials
• Responsible Refrigerants



Certified Wood

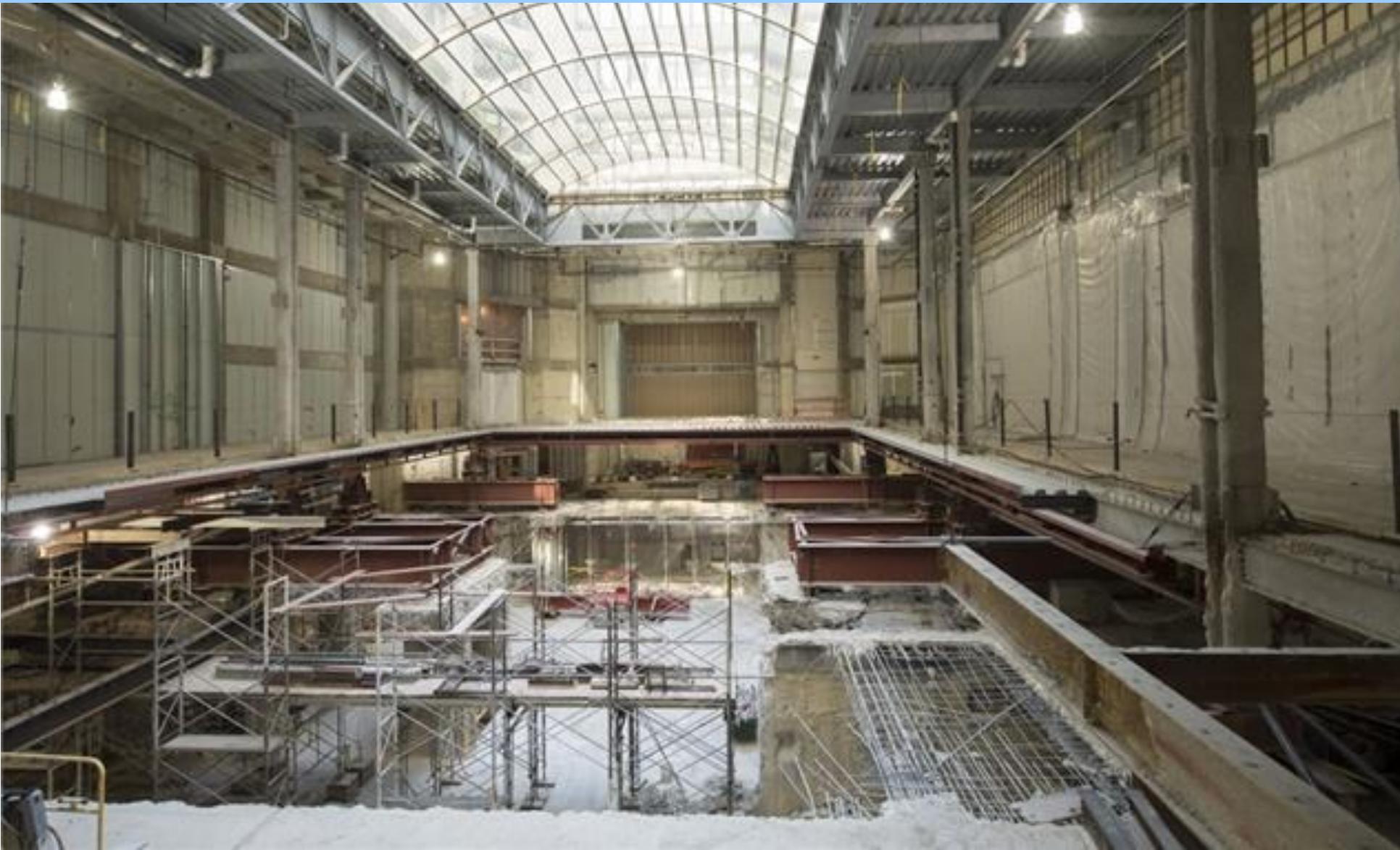


Water Efficient Fixtures



Asbestos Remediation

HQ1: From Design to Construction



Providing staff with the tools to measure their contributions



Rough%20Cut%201-Vimeo-HD.mp4

Currently, the Fund's Sustainability approach focuses mainly on using LEED as a framework. The Fund is moving from a facility centric program to a broader, more holistic environmental sustainability approach.

2020 Vision

Climate Neutral for all greenhouse gas emissions

LEED Platinum campus

Long term natural resource reduction targets

Wellness and wellbeing in the workplace

Transparency and engagement

Questions?

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