

# Main Interior Building's LEED for Existing Building Pilot

Gay Bindocci, National Business Center



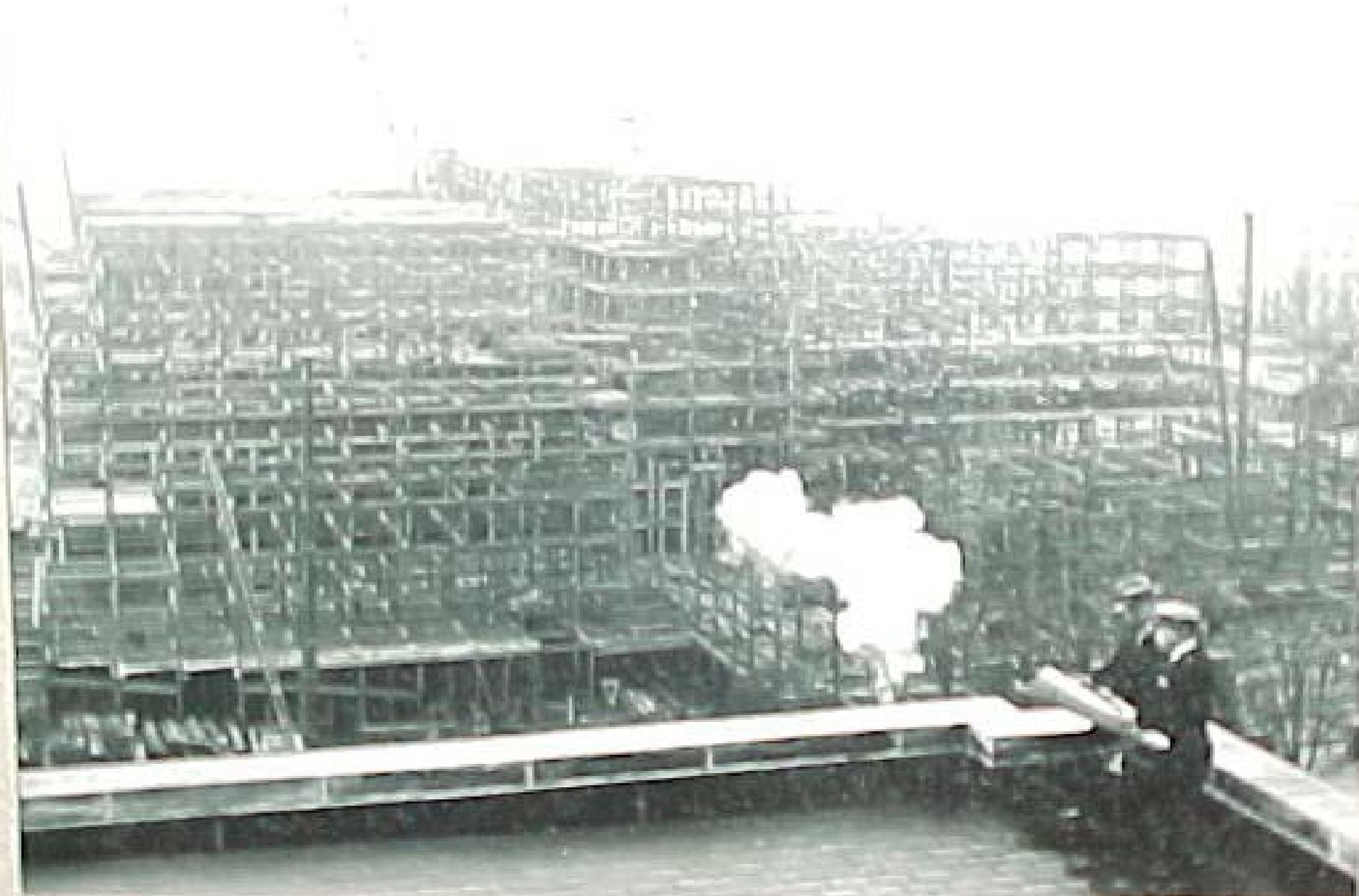
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## Main Interior Building Modernization Project

- History, Scope of MIB Modernization
- Structure of LEED EB
- Pilot Successes & Challenges

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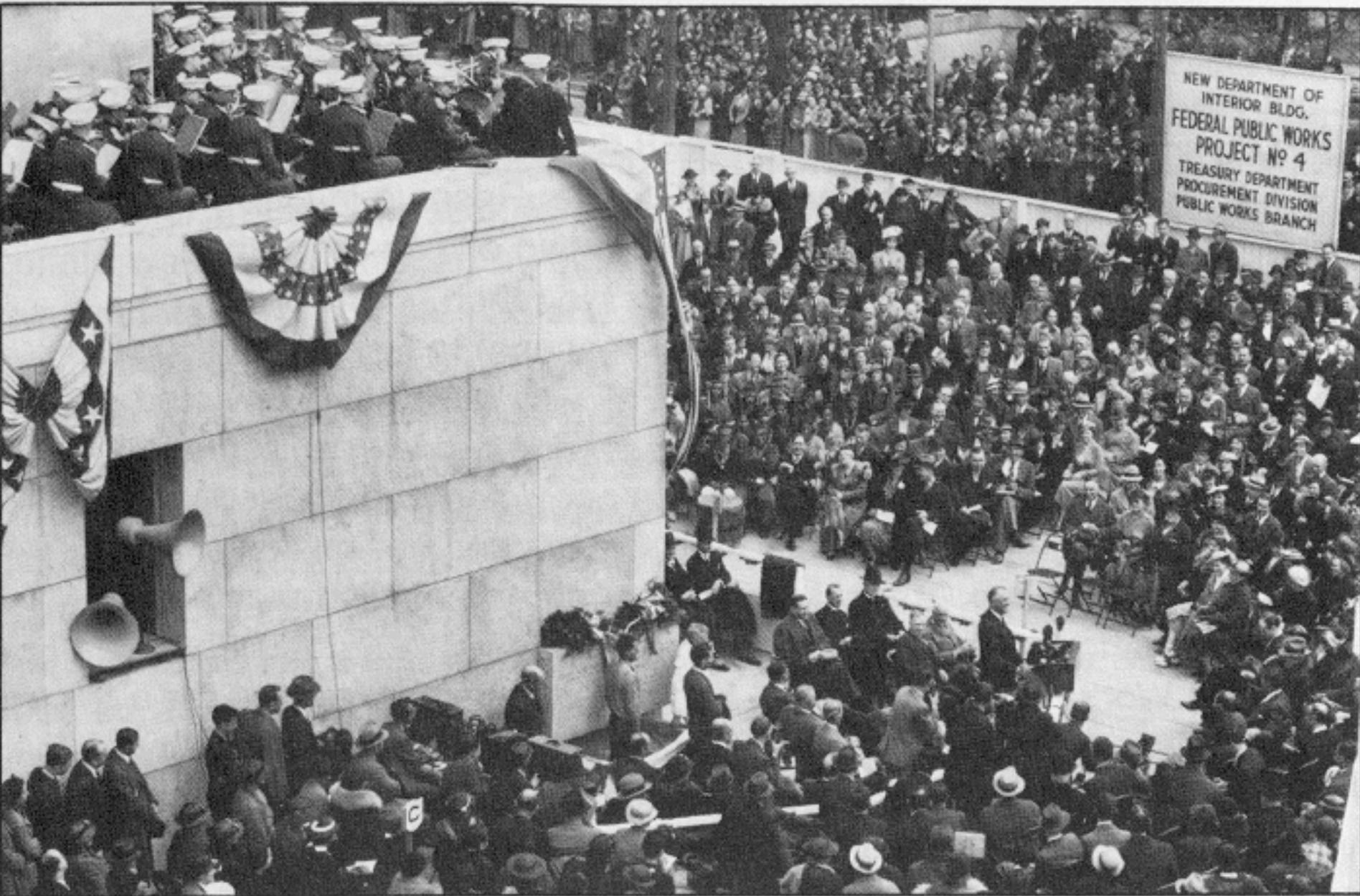


Construction began in April 1935 – Completed in December 1936



Houses over 1.3 million square feet on just over 5 acres of land –  
\$12.7 million was allotted for the project

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**President Franklin D. Roosevelt speaking at  
dedication of present Interior Building, April 16, 1936**



Secretary Ickes placing the corner stone with President Roosevelt

◆ Constructed as one of the most functional and innovative government buildings of its time

- 1<sup>st</sup> Federal Building with Central Air Conditioning and Escalators
- Windows & sink closets in almost every office
- Movable Steel Partitions
- Acoustic Plaster Ceilings

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**Main Lobby**



Amenities which add to the ambience of the facility...

**Auditorium**

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## Secretary's Conference Room

Lobbies, corridors and historic spaces will be returned to the original historic fabric

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**Cafeteria with Courtyard**

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## Indian Arts and Craft Shop

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## Main Interior Building Modernization Project

# Project Scope

- Upgrade and Improve the Main Interior Building's infrastructure to conform to current health and safety standards
- HVAC systems, plumbing, electrical distribution and wiring will be replaced to provide adequate capacity for projected requirements.
- Fire protection and alarm systems will be upgraded or replaced as needed.
- Historically significant spaces and features (i.e. Secretary's Office, Auditorium, Library, Lobbies, Corridors) will be preserved and restored.

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## Main Interior Building Modernization Project

# Health & Safety

- **HVAC will comply with current ASHRAE standards**
- Asbestos containing material and Lead paint will be abated where disturbed. If not disturbed, it will remain as is.
- 2<sup>nd</sup> set of egress stairs installed at end of every wing
- Fire Alarm and Public address system installed
- Building will be fully sprinklered
- Penetrations through floor slabs will be fire stopped
- Emergency Generator will provide back up power

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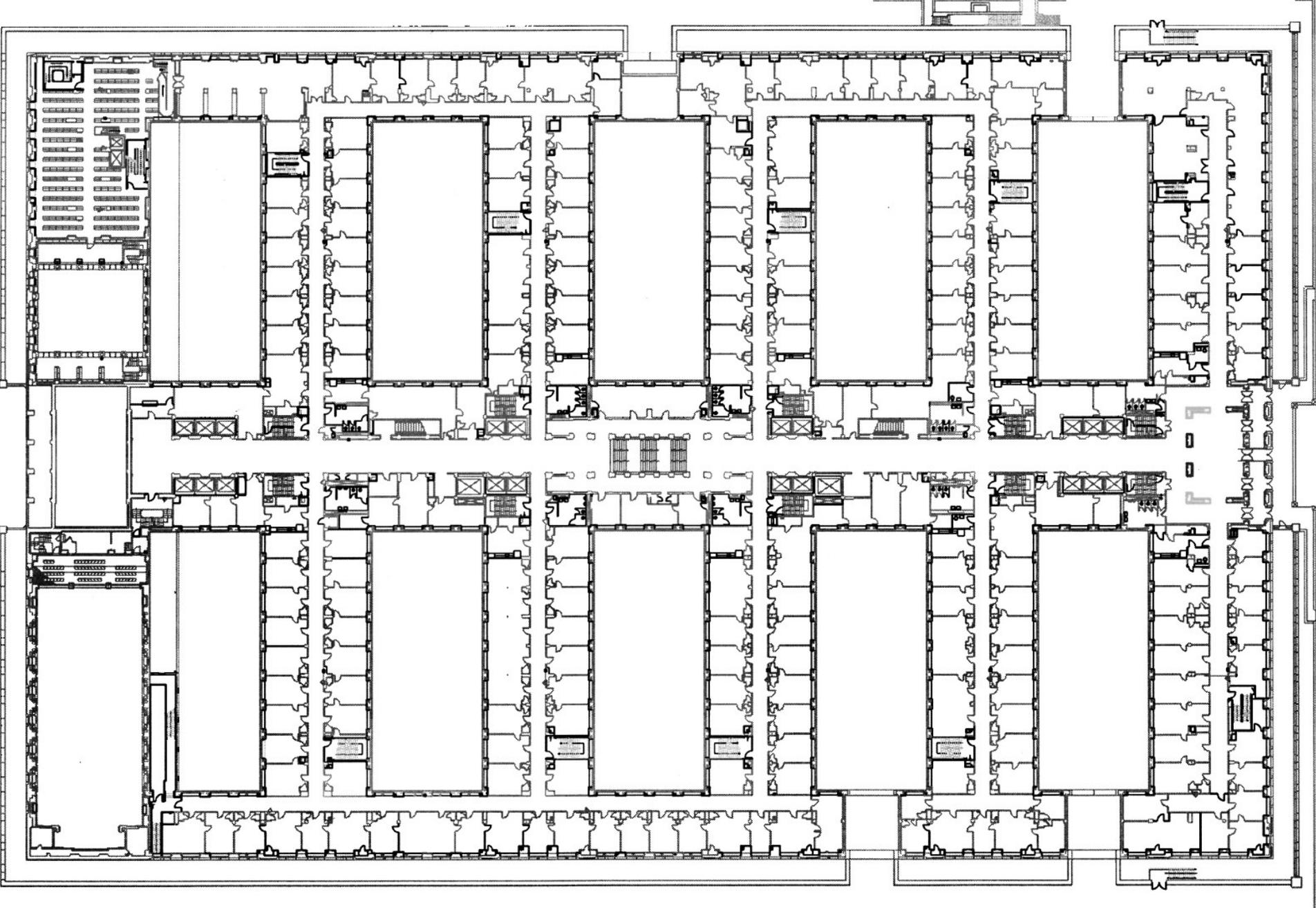


## Main Interior Building Modernization Project

### Technology

- Fiber Optic cable will be installed
- Goal - Every desktop will be equipped with Fiber Optic at end of project
- Cable Tray at desk height including electric, telecom and data
- Central location for SPP room
- Occupant will have capability of controlling individual fan coil units

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**Main Interior Building Floor Plan – Second Floor**



## Main Interior Building Modernization Project

### Project Phases

	<u>Start</u>	<u>Finish</u>
Phase 1 (Wing 6)	11/4/02	05/01/04
Phase 2 (Wing 5)	05/01/04	11/01/05
Phase 3 (Wing 4)	11/01/05	05/01/07
Phase 4 (Wing 3)	05/01/07	11/01/08
Phase 5 (Wing 2)	11/01/08	05/01/10
Phase 6 (Wing 1)	05/01/10	11/01/11

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## Main Interior Building Modernization Project

### Project Cost by Phase

Phase 1	\$29.2 Million
Phase 2	\$23.0 Million
Phase 3	\$31.3 Million
Phase 4	\$24.5 Million
Phase 5	\$33.6 Million
Phase 6	\$26.3 Million
<b>Total Project -</b>	<b>\$167.9 Million</b>

#### Note:

Costs are estimated to increase to approximately \$200,000,000 for the whole project due to inflation and the one year project delay as result of September 11,2001

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## Main Interior Building Modernization Project

### Project Timeline

- August 6, 2001 - GSA awarded the project to Grunley Construction
- September 11, 2001 - Events delayed move of NPS out of the building for approximately one year
- Throughout 2002 - Work proceeded in Central Plant, Mechanical Floor, Garage, Basement and other unoccupied areas
- August 2002 - Nation Park Service moved approximately 320 people to 1201 Eye Street
- Sept – Oct 2002 - Interim build out of vacated NPS offices within MIB
- October 2002 - Internal move of 19 Divisions to Interim spaces
- November 4, 2002 - Entire 6<sup>th</sup> wing vacated and turned over to GSA
- Currently - Construction underway within the 6<sup>th</sup> wing

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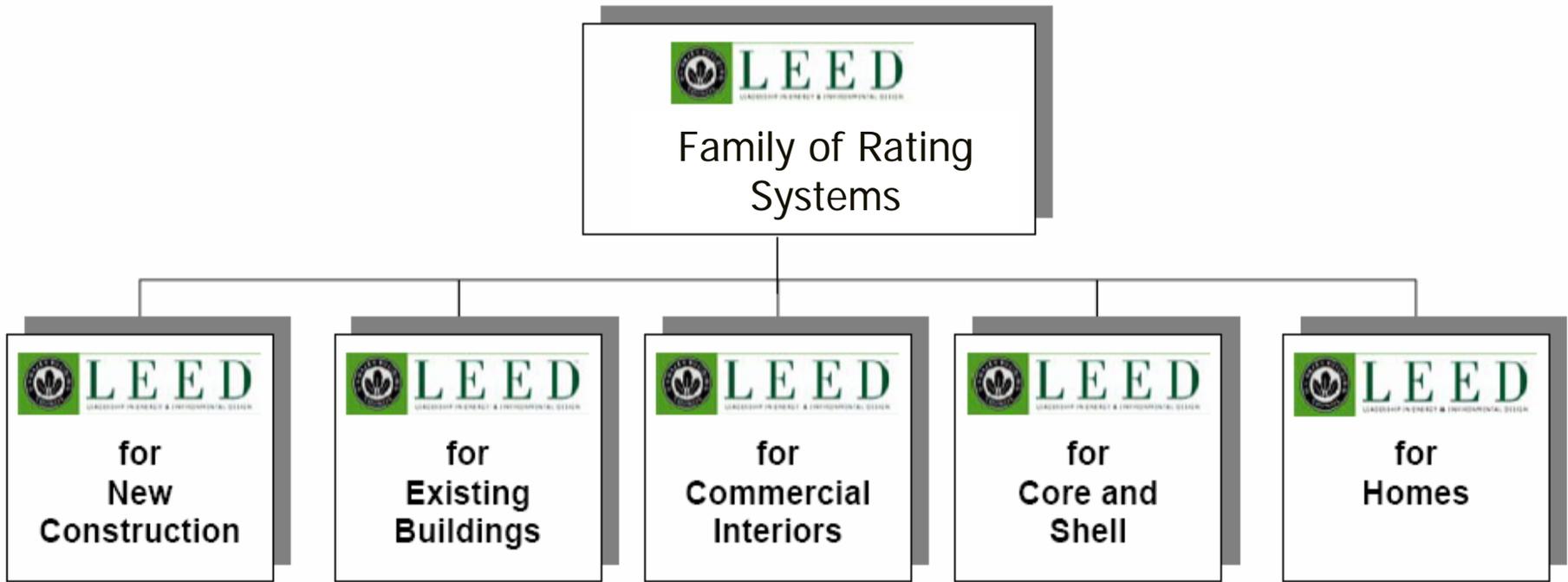


## Main Interior Building Modernization Project

# U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) for *Existing Buildings*



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Also ... LEED for Organizations and Neighborhoods

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## Main Interior Building Modernization Project

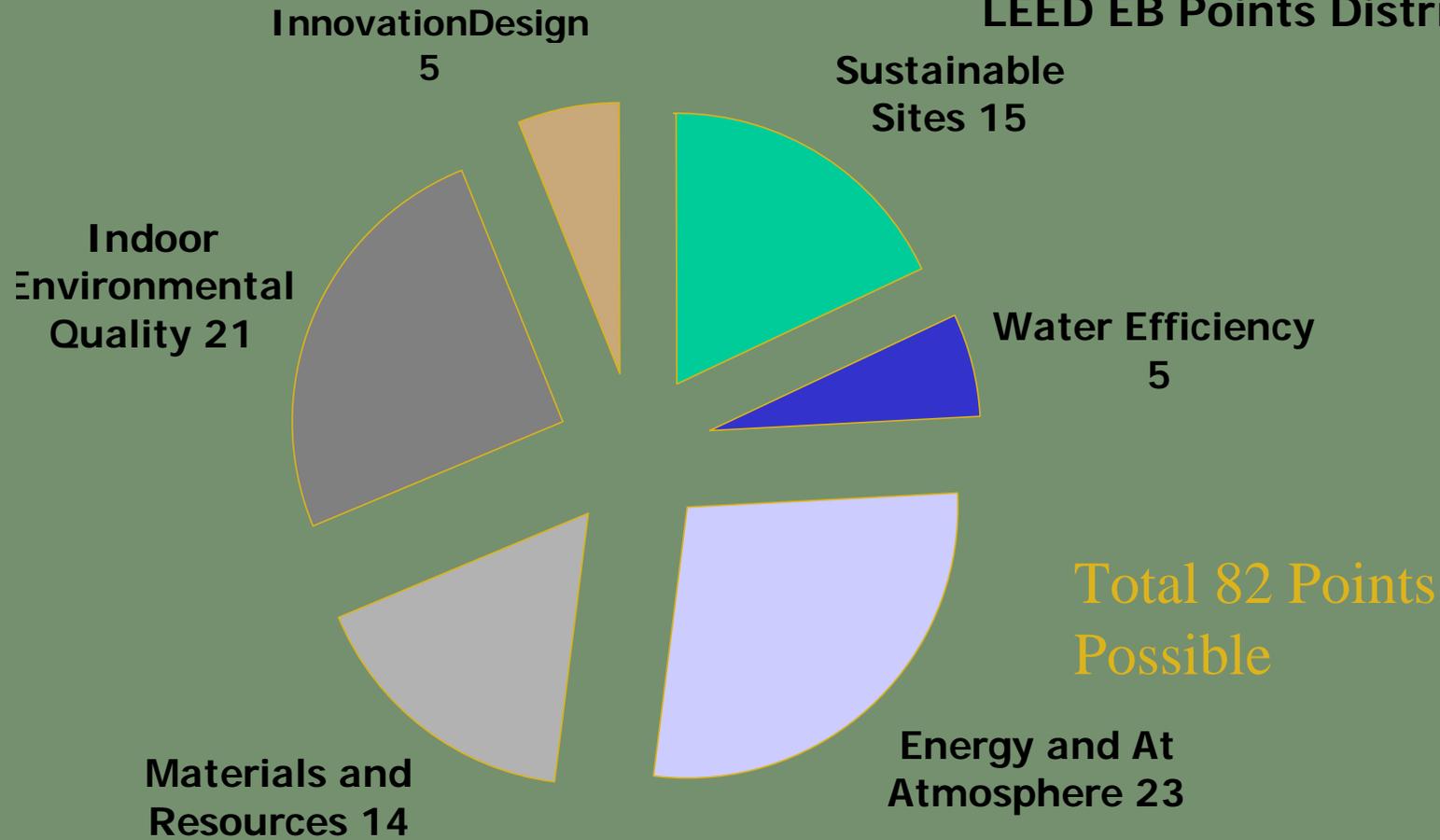
- Existing Buildings compose 1/3 of US energy demand
- Occupants salaries = 85% of building operation costs
- Renovation of buildings included in LEED EB
- How could DOI make use of LEED EB to benchmark portfolio of 33,000 buildings?

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# Main Interior Building Modernization Project

## LEED EB Points Distribution



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# Sustainable Sites

- Erosion Control
- Age of Building
- Green Site and Building Exterior Management
- High Density Building and Area
- Alternative transportation
- Reduced Site Disturbance
- Stormwater Management
- Reduce Heat Islands
- Light Pollution Reduction

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Wing 2 West: Location of Green  
Roof Pilot – approximately 5,000 sf

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# Water Use and Water Efficiency

- Minimum Water Efficiency
- Discharge Water Compliance
- Water Efficient Landscaping
- Water Use Reduction

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# Energy and Atmosphere

- Prerequisites:
  - Existing Building Commissioning
  - Minimum Energy Performance
  - CFC Reduction in HVAC and R Equipment
- Optimize Energy Performance
- Ozone Protection
- On-site/Off-site Renewable Energy
- Building Operation and Maintenance
- Performance Measurements
- Documenting Sustainable Building Costs

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New efficient pendant lighting  
NEW efficient and save HVAC system

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# Materials and Resource

- **Prerequisites**
  - Waste Stream Audit
  - Storage & Collection of Recyclables
  - Reduced mercury in light bulbs
- Source Reduction & Waste Management
- Construction Waste Management
- Optimized Use of Alternative Materials
- Optimized Use of IAQ Compliant Products
- Sustainable Cleaning Products
- Occupant Recycling

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- MIB's 70 year old cardboard baler
- NISH contract recycling staff
- MIB Waste Diversion for FY01 – 51%
- Recycling storage in new kitchenettes

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Construction Waste Diversion – 70% for Phase 1

Recovered as comingled stream – due to limited staging area

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**Demolition**  
**- Office**  
**- Hallway**



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Biobased Products Display in MIB Cafeteria and Recycled Content JWOD Paper for Sale in Office Eagle Store

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# Indoor Environmental Quality

- **Prerequisites**
  - Minimum IAQ Performance
  - Environmental Tobacco Smoke
  - Asbestos Removal or Encapsulation
  - PCB Removal
- Increased Ventilation
- Increased Ventilation Effectiveness
- Construction IAQ Management
- Documenting Productivity Impacts
- Green Housekeeping
- Controllability of Systems
- Thermal Comfort
- Daylighting and Views
- Contemporary IAQ Practice

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# Temporary Air Handling System

- Negative Pressure
- Heating



**Daily Briefing**[Printer Friendly  
version](#)

November 4, 2002

**Interior Department headquarters reopens  
after asbestos scare**

By Amelia Gruber

[agruber@govexec.com](mailto:agruber@govexec.com)

The Interior Department headquarters reopened Monday morning after officials determined that the elevated asbestos levels that caused a shutdown of the building on Friday were confined to the cafeteria and an adjoining office supply store.

On Friday, more than 2,000 Interior Department employees were forced to evacuate the building, located at 18th and C Streets NW in Washington, after routine air quality tests unearthed elevated asbestos levels in a mechanical room connected to the cafeteria and the Office Eagle Store through a vent. Workers are removing asbestos from pipes and electrical systems close to the mechanical room as part of a 10-month renovation project.

**Related Stories**

- [Rocky Flats nuclear cleanup effort finally on track](#) (08/14/02)
- [New York agencies regroup after loss of offices](#) (09/12/01)

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# Innovation and Design Process– Possible 5 Points

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## Innovation & Design Process 5 Possib

X			
X			
		X	
		X	

- Credit 1.1 **Innovation in Design:** Ridesharing and walk/public transit incentives
- Credit 1.2 **Innovation in Design:** Occupant education program
- Credit 1.3 **Innovation in Design**
- Credit 1.4 **Innovation in Design**
- Credit 2 **LEED™ EB Accredited Professional**

5	11	9	10	18
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## Credit Classification Summary

**tainable Total:** 35  
**tainable + Minor Effort Total:** 46  
**tainable + Min.+ Maj. Total:** 55  
**ximum Possible Total:** 65

**Certified:** 31 – 36  
**Silver:** 39 – 46  
**Gold:** 47 – 61  
**Platinum:** 62 – 71

**MIB Could Go Gold...**