
Engaging the Public through Interpretation at Legacy Sites

Visitors Center at Fernald Preserve and Mound Cold War Discovery Center

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U.S. Department of Energy, Office of Legacy Management

WM Symposium, Panel 106

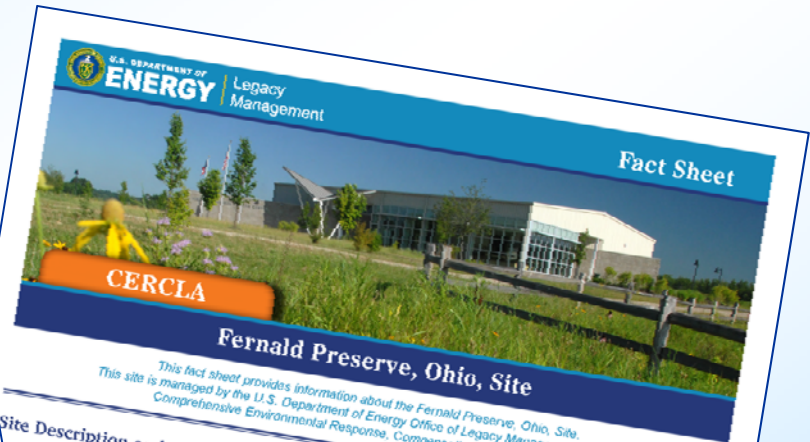
March 8, 2017



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Fernald Preserve History



This fact sheet provides information about the Fernald Preserve, Ohio, Site. This site is managed by the U.S. Department of Energy Office of Legacy Management under the Comprehensive Environmental Response, Compensation, and Liability Act.

Site Description and History

The Fernald Preserve is located on the site of the former Feed Materials Production Center, a uranium processing facility that produced high-purity uranium metal products, the first step in America's nuclear weapons production. The site's production mission began in 1951 and continued until 1989, when production operations ceased. Fernald's mission changed to environmental remediation and comprehensive environmental remediation and geologic monitoring. This cleanup was one of the largest and most costly cleanup operations ever undertaken in the United States.

The site was cleaned to standards established by the U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), Ohio Environmental Protection Agency (EPA), contractors, residents near the site, and members of the surrounding community. A groundwater extraction and treatment system was installed to protect the regional Miami Aquifer beneath the site from contamination. EPA Safe Drinking Water Act



The site has now come full circle. Restoration activities at the site have been restored using native upland forests, a lengthy riparian corridor, acres of grassland, including tallgrass prairie and savanna. The site's varied and unique habitats are accessible on a seven-mile network of trails. Over 240 species of birds have been observed, and over 100 different species have been documented as nesting at the Fernald Preserve. The award-winning Fernald Preserve Visitors Center is the focal point of the site. Completed in August 2008, the Visitors Center began as a warehouse that was redesigned in cooperation with the University of Cincinnati's College of Design, Architecture, Art, and Planning. Exhibits in the Visitors Center depict the diverse history of the Fernald site and tell the story from the time of the



Vision for the Future of Fernald is a Product of the Past



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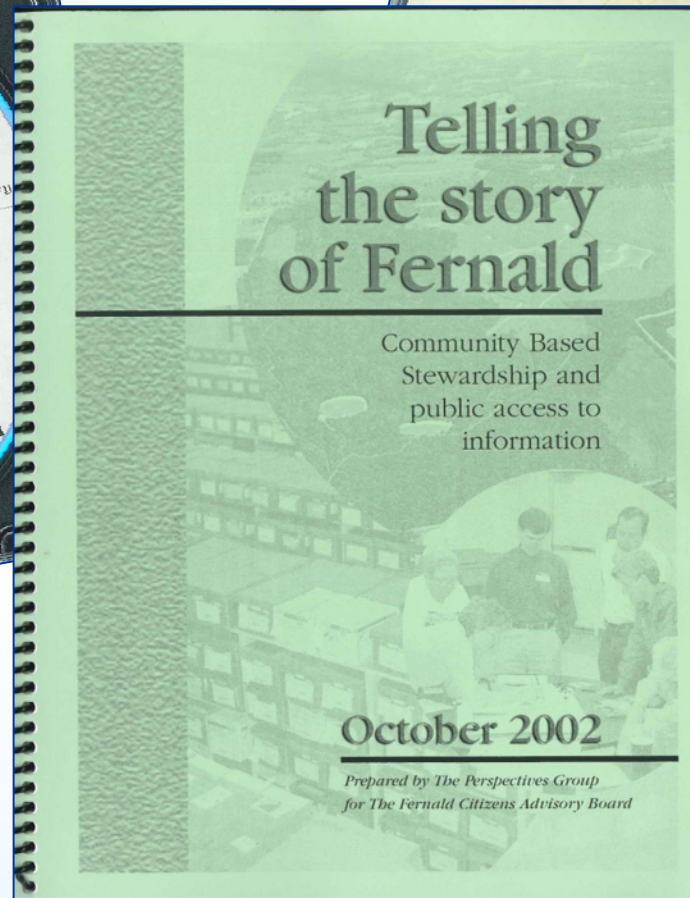
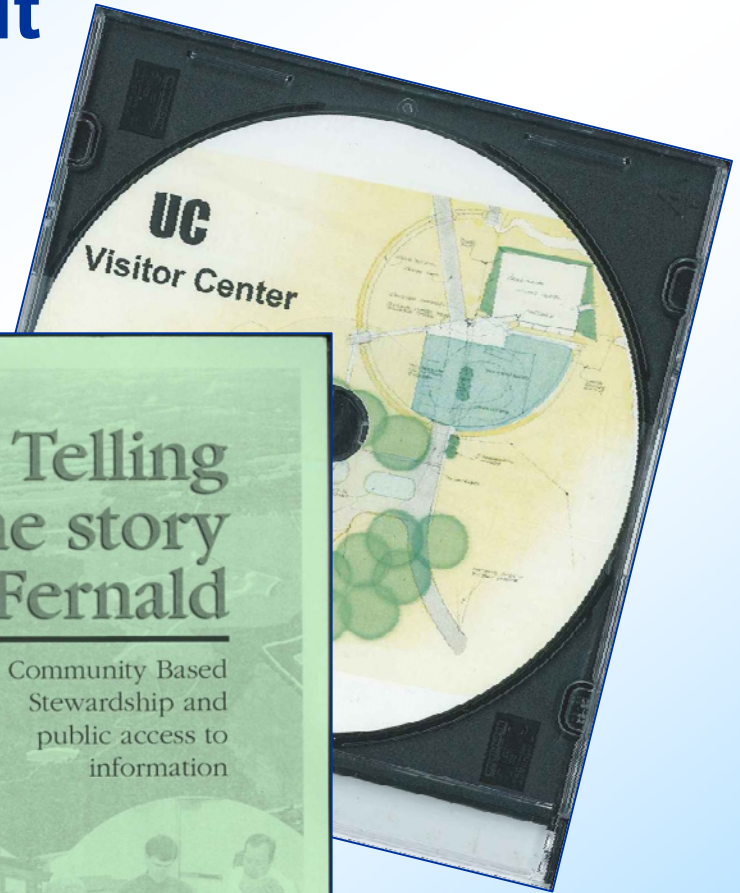
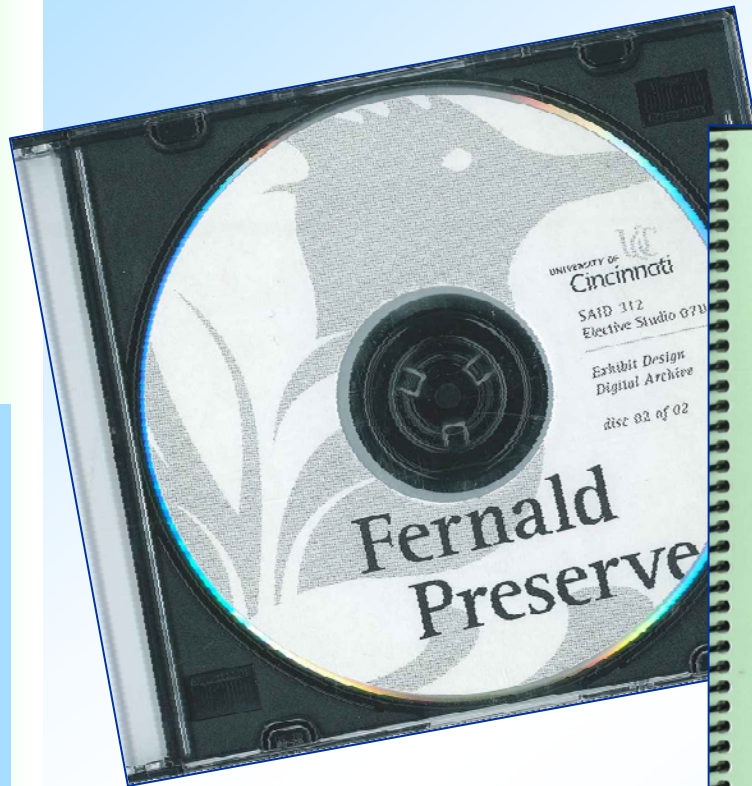
Stakeholder Input is Crucial



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Visitors Center & Exhibit Design & Development



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Exhibits Reveal, Engage, and Preserve History



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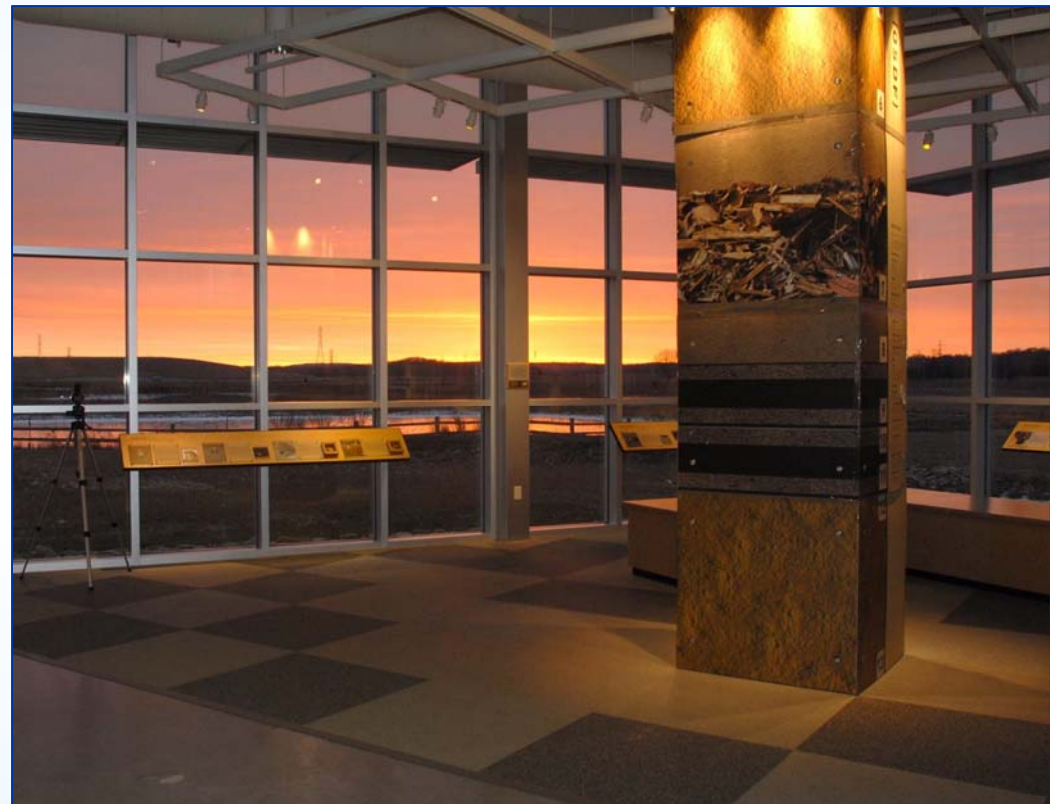
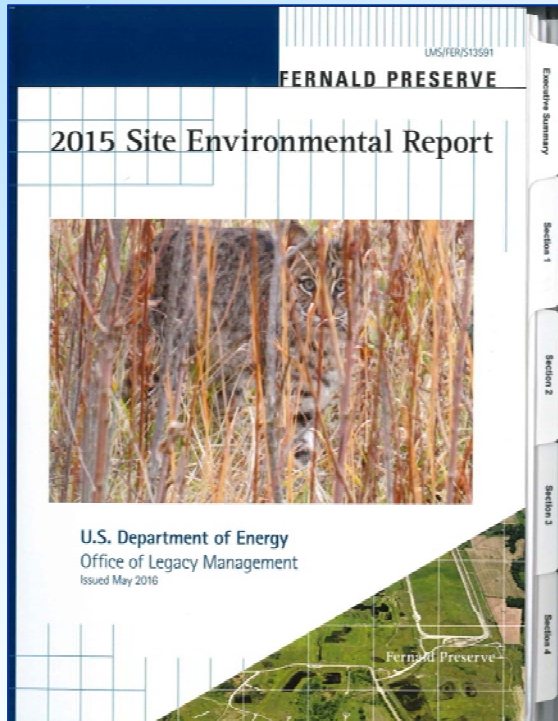
Exhibits Comprised of 12 Sub-themes



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Visitors Center Houses Current Site Information



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Visitors Center Design Considerations



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Serving as a Community Asset

Open seven days a week,
7:00 a.m. to dusk.



"As a community asset, the Fernald Preserve will foster wildlife habitat and provide educational opportunities through environmental stewardship."



Fernald Preserve
7400 Willey Road
Hamilton, Ohio 45013

Visitors Center is open Wednesday–Saturday
from 9:00 a.m. to 5:00 p.m.

Enjoy seven miles of hiking trails, free history and nature programs,
and a state-of-the-art Community Meeting Room.

For additional information, email fernaldd@lm.doe.gov or call (513) 648-3330.
Visit the website at www.lm.doe.gov/fernaldd for directions and calendar of events.



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Current Mound Science & Energy Museum (future Mound Cold War Discovery Center)



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Mound Cold War Discovery Center

- MOA with Dayton History (501.c.3), Mound Development Corporation (property owner), Mound Science & Energy Museum (501.c.3), and DOE signed February 2015.
 - Dayton History, via Cooperative Agreement with DOE, is lead for project, to include remodeling of facility; design, fabrication and installation of exhibits; start up & initial operation of facility
 - MDC leases facility to Dayton History and provides maintenance of facility, grounds, parking lot
 - MSEM provides artifacts and historical archive accumulated since Mound Plant closed, volunteers, and subject matter experts for review and development of new exhibits
 - DOE provides funds and has substantial involvement in design of remodel and exhibits, and operation of new facility
 - Two years of capital build up and five years of operations.



Mound Cold War Discovery Center

- Cooperative Agreement (DOE/Dayton History contractual agreement) signed September 2015. Provides funding for:
 - Remodel current MSEM building. First floor space will be remodeled to accommodate 10 exhibits, second floor will house auditorium, bathroom and small offices. Building is 10,320 SF (~7,000 SF) utilized for “Mound Cold War Discovery Center.”
 - Dayton History to perform complete box inventory and cataloging of historical references (e.g., photos, reports, artifacts) to professional standards upon receipt of PastPerfect database and references/artifacts from MSEM.
 - Dayton History to digitize MSEM archival photos (high resolution). All MSEM archival images digitized by Dayton History will be shared with MSEM.
- Dayton History will have two years for build out and five years of operations under the Cooperative Agreement.



Mound Cold War Discovery Center

THE MOUND COLD WAR DISCOVERY CENTER Interpretive Themes

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The Central Theme

The missions undertaken by the men and women at Mound Laboratories played a significant role in the United States' national security and nuclear programs development during the Cold War era.

Subtheme I:

In the early days of the atomic race, the nation's top scientists, some of which were in Dayton, Ohio, worked together to harness nuclear power for the United States.

Subtheme II:

After WWII, a permanent atomic research facility was constructed in Miamisburg, Ohio, for the purpose of secretive missions meant to support atomic weapons research.

Subtheme III:

During the Cold War arms race, Mound Laboratory worked on a wide variety of missions contributing to the United States' network of nuclear weapons laboratories, design agencies, and production facilities.

Subtheme IV:

By the late 1980s, the Cold War was beginning to thaw, and changing national priorities necessitated a shift from nuclear research to industrial reuse at the site.

Subtheme V:

Following the closing of the Mound facility, the DOE Office of Legacy Management has been working to ensure the future protection of human health and the environmental well being of the Mound site.



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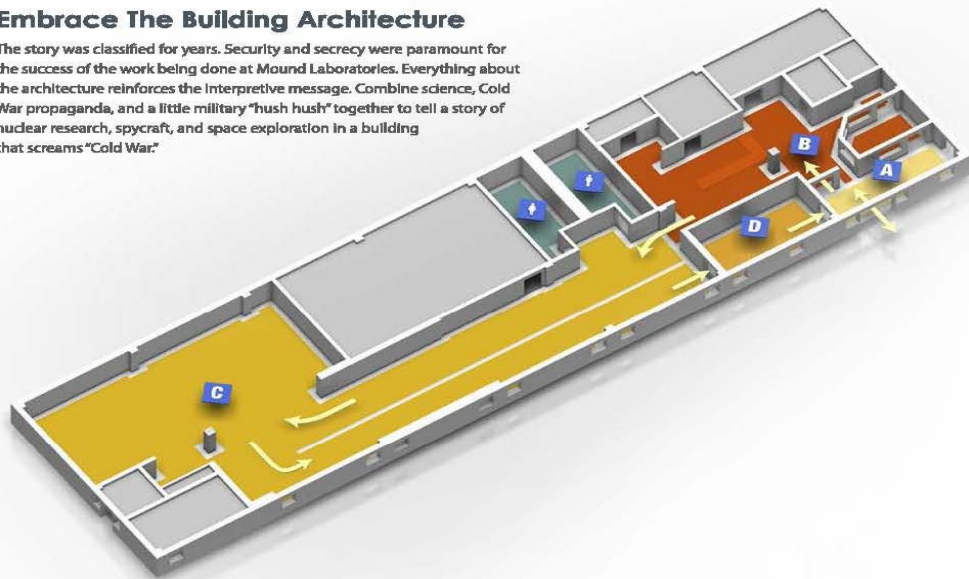
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Mound Cold War Discovery Center

THE MOUND COLD WAR DISCOVERY CENTER Site Flowplan

Embrace The Building Architecture

The story was classified for years. Security and secrecy were paramount for the success of the work being done at Mound Laboratories. Everything about the architecture reinforces the interpretive message. Combine science, Cold War propaganda, and a little military "hush hush" together to tell a story of nuclear research, spycraft, and space exploration in a building that screams "Cold War."



Area A: Building Lobby / Vestibule

As one of the secure employee entrances for the Mound facilities, the lobby has an intentionally controlled design in terms of visitor flow. Use its original purpose to illustrate a point while greeting your audience.

Area B: Reception / Gift Shop

After passing through "security," brief the visitor on their mission here at the Mound. This area can offer additional messaging through propaganda and safety graphics in the hallways, floor, and even the restrooms.

Area C: The Exhibit Hall

A long, controlled hallway leads visitors through a sequenced story about expanding the nation's nuclear capabilities during the Cold War and the local and national implications that resulted.

Area D: Final Message / Clean Room

The last room along the visitor path will cap the interpretive message, and speak to the future of the Mound Business Park and the continued care of the site.

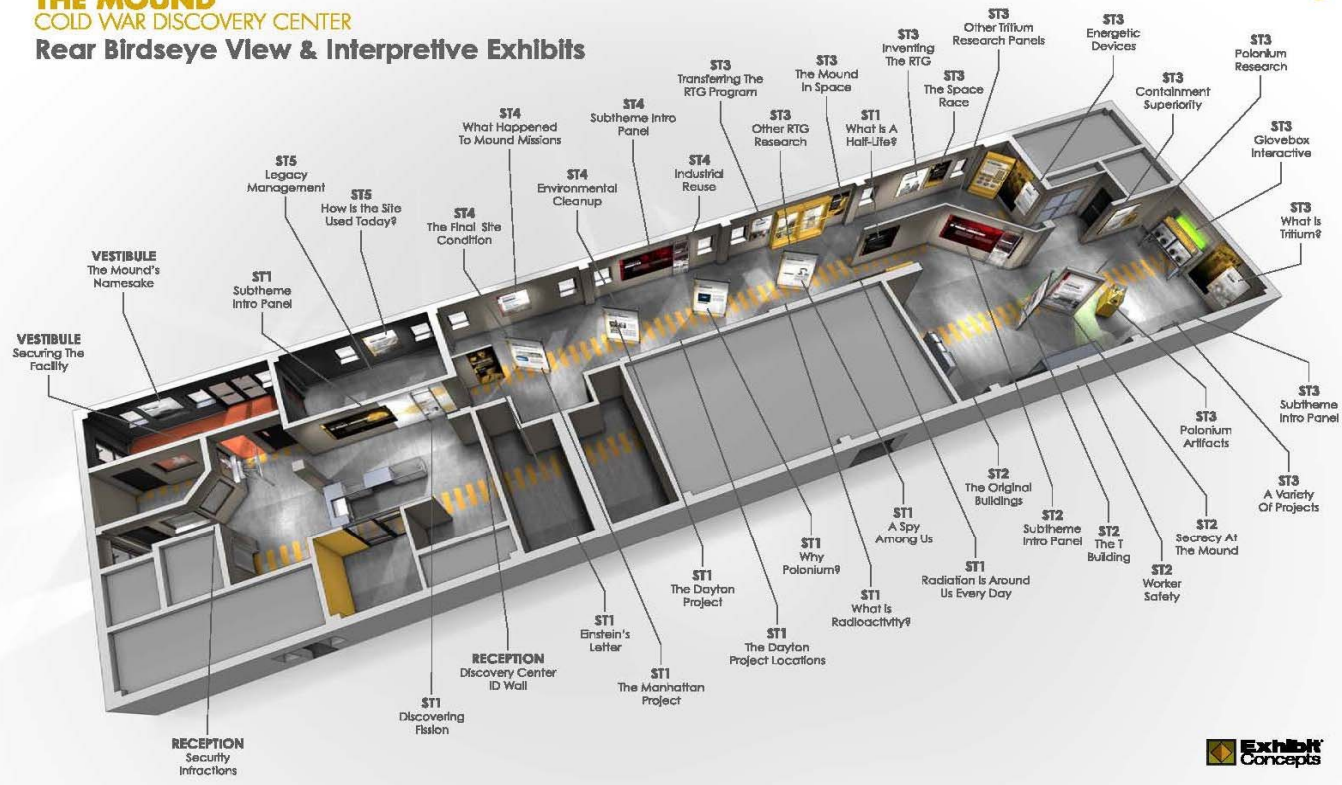


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Mound Cold War Discovery Center

THE MOUND COLD WAR DISCOVERY CENTER Rear Birdseye View & Interpretive Exhibits



Mound Cold War Discovery Center

Cost Estimate:

Design and Construction

- Year 1 - \$29,732
- Year 2 - \$515,618

Operational costs (to include 4 FTE)

- Year 3 - \$340,500
- Year 4 - \$340,500
- Year 5 - \$340,500

TOTAL Cost: \$1,833,850



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Mound Cold War Discovery Center

■ SCHEDULE:

- Building Design complete – September 2016
- Exhibit Design
 - Phase I – May 2016
 - Phase II – August 2016
 - Phase III – February 2017
 - Final Exhibit Design complete – March 2017
- Construction complete – September 2017
- Ribbon Cutting – October 2017
- Other activities include developing a Marketing Strategy, Educational Programs, and Workshops to engage the public.
- Building exterior and street signage for MCWDC to be installed just before ribbon cutting.

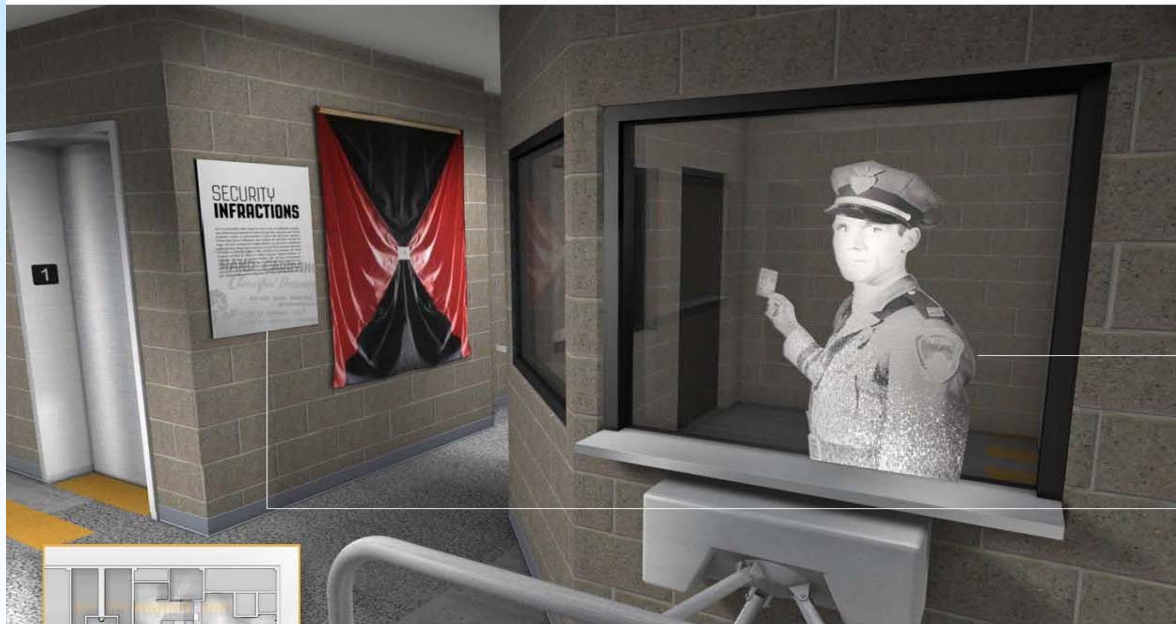


Mound Cold War Discovery Center

THE MOUND COLD WAR DISCOVERY CENTER

Renderings / Reception_Security Infractions

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After passing through security, a warmer side of the experience can be seen waiting to greet you. Once you've cleared your credentials, a welcoming face waits behind the reception counter. And while the Discovery Center's identity on the wall embraces the stark, Cold War design style, the smiling chipmunk on the "Security Infractions" graphic brings a moment of levity before entering into the larger gallery.

- **Translucent Window Graphic**
This image of a Monsanto Security Guard greets you at the turnstile, and takes a decidedly more serious tone.
- **2' x 3' Wall Panel**
This panel discusses security infractions, and interprets the flag hanging on the wall.



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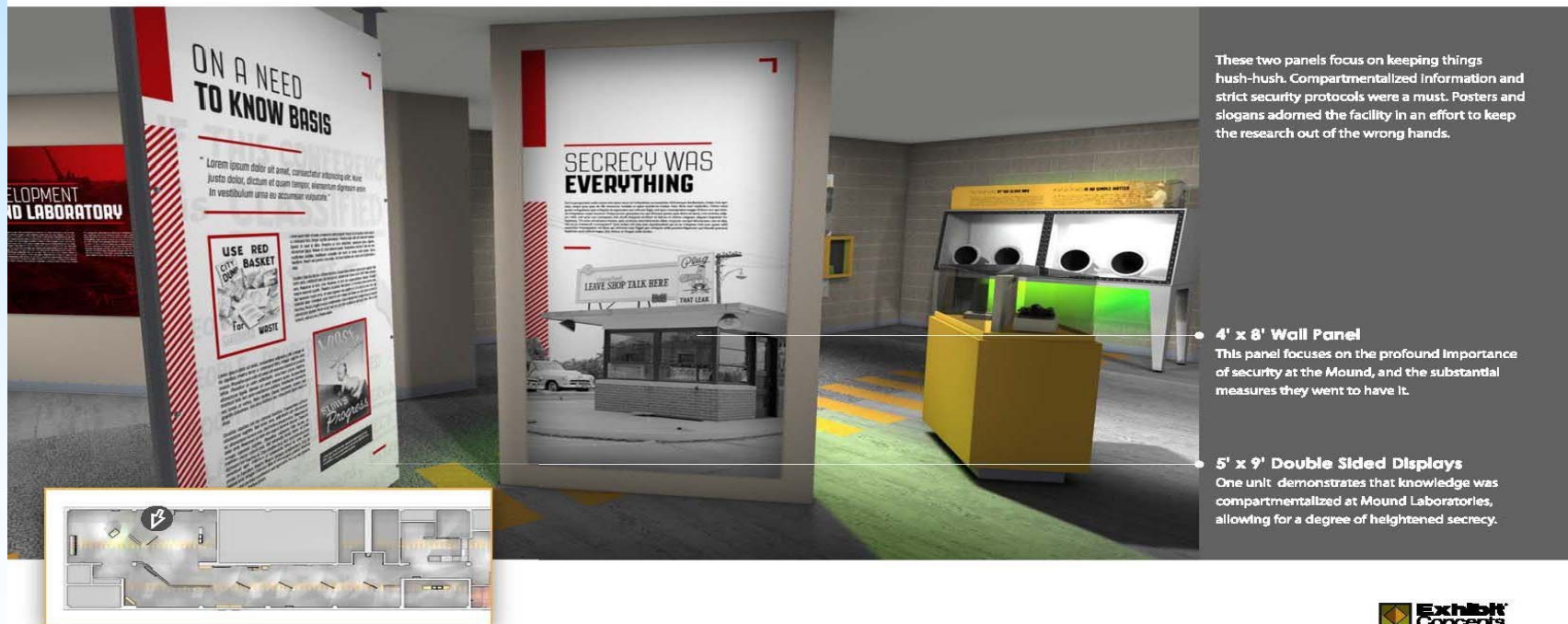
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THE MOUND COLD WAR DISCOVERY CENTER

Renderings / Subtheme 2_Secrecy At Mound Laboratories

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These two panels focus on keeping things hush-hush. Compartmentalized information and strict security protocols were a must. Posters and slogans adorned the facility in an effort to keep the research out of the wrong hands.

This panel focuses on the profound importance of security at the Mound, and the substantial measures they went to have it.

One unit demonstrates that knowledge was compartmentalized at Mound Laboratories, allowing for a degree of heightened secrecy.



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Mound Cold War Discovery Center

Success Stories:

- Full cooperation of MDC (building owner) to use remaining funds in DOE Comprehensive Reuse Grant funds to install new signage for MCWDC.
- Full participation of MSEM volunteers (and other Mound subject matter experts) in design of future MCWDC exhibits.
- Professionalism of Dayton History personnel when working with MSEM volunteers, including discussions re. new & improved methods for engaging a more diverse audience.
- Future MCWDC exhibits expected to attract broader (and returning) audience than current, highly scientific MSEM exhibits.



Mound Cold War Discovery Center

Challenges:

- Discussions continue with Dayton History re. incorporation of former Mound CERCLA Reading Room capabilities into “LM” exhibit of MCWDC.
- Differences in opinion on target audience for MCWDC exhibits (e.g., fifth grade reading level vs. college student).
- Reluctance of some MSEM volunteers to turn over photos and artifacts compiled past several years since Mound Plant closed, to new DOE Grant recipient (Dayton History)
- Comparison of design for MCWDC (funding capped at \$1.8M) to amenities in Fernald Visitors Center (where CERCLA remedy requires continued federal ownership and public outreach activities, including hiking trails, community space available to non-profit organizations, etc.



Mound Cold War Discovery Center

THE MOUND COLD WAR DISCOVERY CENTER

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Renderings / Subtheme 1_The Manhattan & Dayton Projects



Exhibit
Concepts



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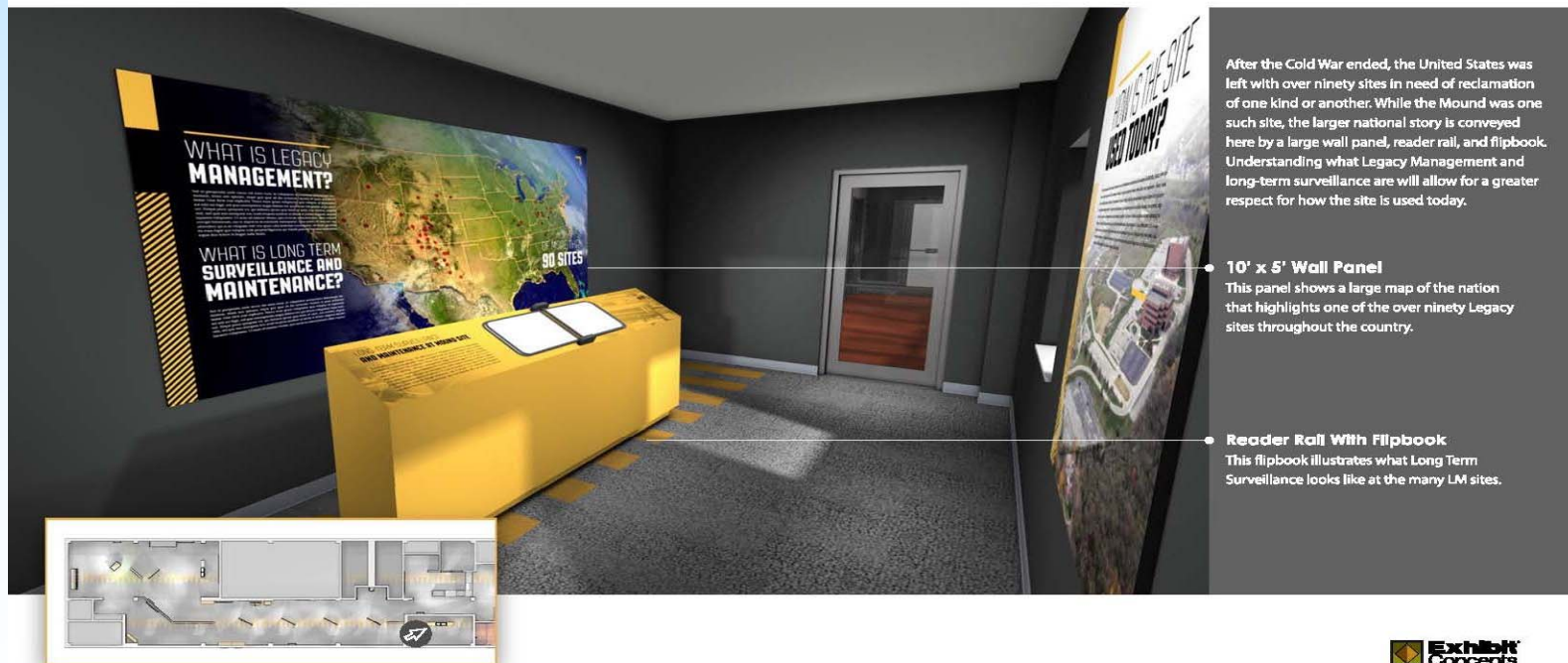
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THE MOUND COLD WAR DISCOVERY CENTER

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Renderings / Subtheme 5_Legacy Management & Long-Term Surveillance



After the Cold War ended, the United States was left with over ninety sites in need of reclamation of one kind or another. While the Mound was one such site, the larger national story is conveyed here by a large wall panel, reader rail, and flipbook. Understanding what Legacy Management and long-term surveillance are will allow for a greater respect for how the site is used today.

10' x 5' Wall Panel

This panel shows a large map of the nation that highlights one of the over ninety Legacy sites throughout the country.

Reader Rail With Flipbook

This flipbook illustrates what Long Term Surveillance looks like at the many LM sites.



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