



## **Library Consultation Working Group Town Hall – Special Collections Facility**

**January 22, 2019**



## **TOWN HALL PRESENTATION: SPECIAL COLLECTIONS FACILITY REDEVELOPMENT PLAN**

**The Town Hall Presentation is the result of the Provost's charge letter to the Library Consultation Working Group (LCWG), a campus wide committee of faculty.**

**The LCWG is charged to review, discuss, and propose changes to both the Main and Undergrad Libraries.**

**The LCWG met regularly since April 2019, to provide strategic input to addresses collection preservation, enhancements to the Library building and interior, as well as scholar and student access to collections, tools, services, and programs that support creative inquiry across all areas of the campus.**

**The Special Collections Facility Redevelopment Plan is to provide access to, and preservation of rare and archival collections, which lack dedicated space to ensure secure, climate-controlled storage, as well as first-rate exhibit and dedicated instructional space.**

# Library Consultation Working Group Members

David Chasco, FAA, Chair

Ariana Traill, LAS, Co-Chair

Greg Girolami, LAS

Tom Johnson, LAS

Melissa Michael, LAS

Bob Morrissey, LAS

Lori Newcomb, LAS

Aric Rindfleisch, Business

Lynne M. Thomas, Library

Leslie Morrow, Graduate Student

Alexandra Greulich, LAS, Undergrad Student

Cynthia Oliver, Dance, *ex officio*

Tom Teper, Library, *ex officio*

Matthew Tomaszewski, Provost Office, *ex officio*



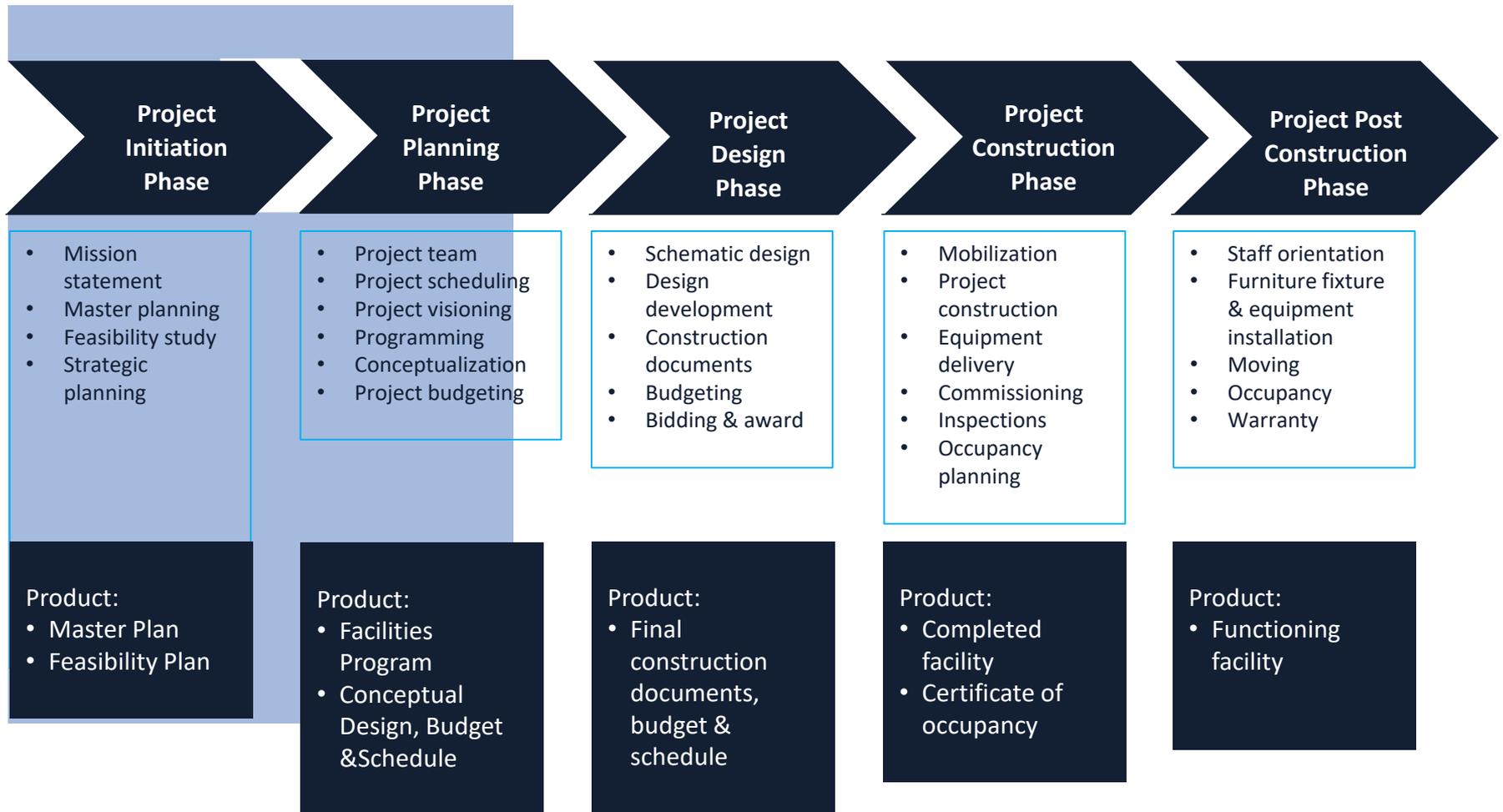


# Library Building Project – Status Update

## Library Building Project

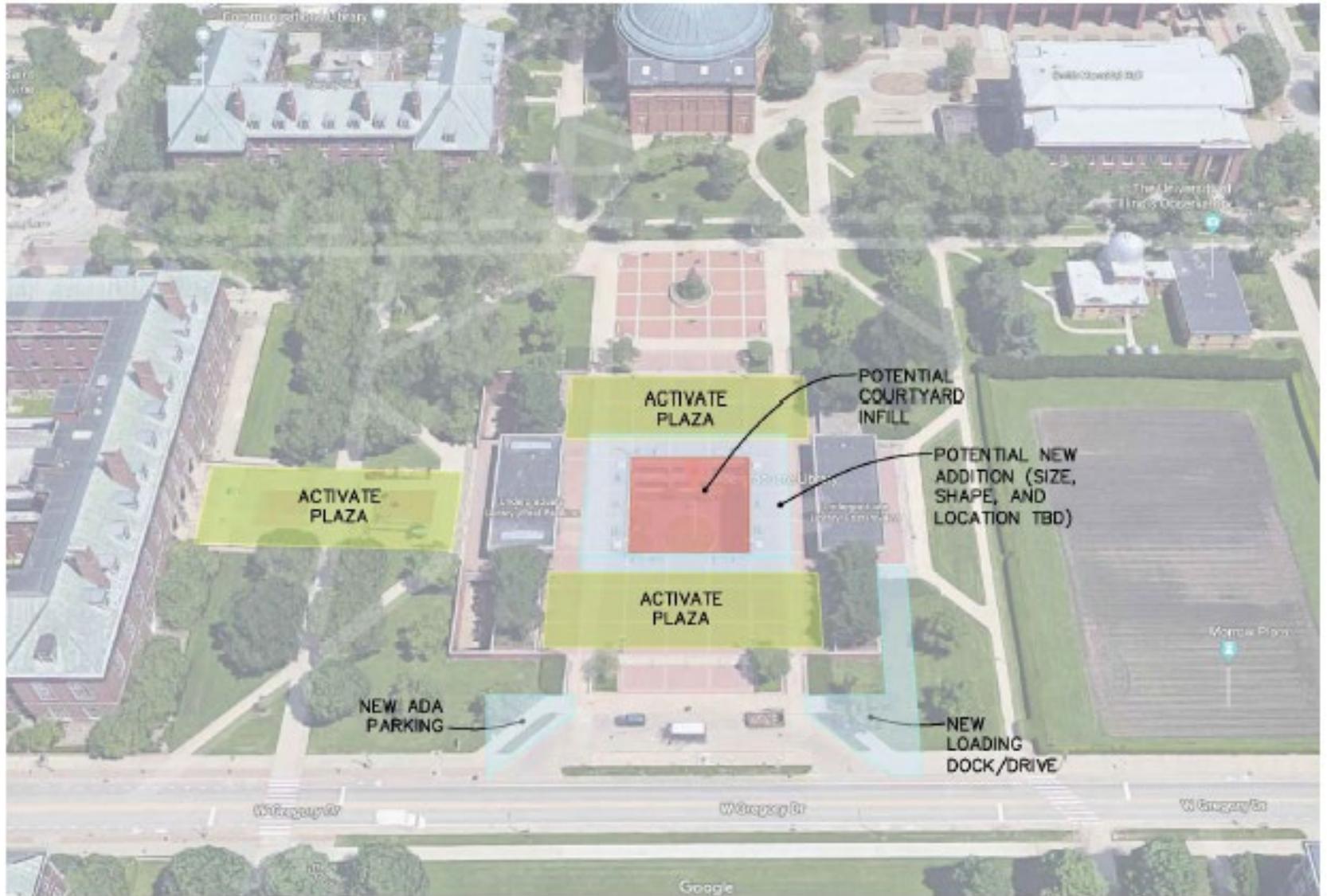
- **Capital Delivery Process**
- **Current Project Status - Overview**
  - Main Library Programming and Conceptual Design
  - Special Collections Facility
- **Special Collections Facility**
  - External Consultant
  - Visioning, Programming, Space Planning & Conceptual Design
- **Proposed Floor Plans For Special Collections Facility**

# Capital Delivery Process



# Special Collections Facility: Overall Status

- **Kick-off Meeting: June 17, 2019**
- **Draft Part 1: Received, reviewed by library personnel and LCWG, commented on, and discussed.**
- **Draft Part 2: Received, reviewed by library personnel and LCWG, commented on, and discussed.**
- **Final Draft Part 2: Received November 21, 2019**



# Special Collections Facility: Process

- **External Consultant: Spring 2019**
  - Special Collections Division requested we hire a consultant to evaluate overall project feasibility
  - **Consultant Endorsed Overall Concept and Feasibility**
    - Undergraduate Library Building a “...good base for this merger.”
    - Include: Illinois History and Lincoln Collections, Rare Book and Manuscript Library, Student Life and Culture Archives, and University Archives
    - Grade-level Addition part of comprehensive plan
    - Efficiencies: Single Reading Room, Shared Research Services Across Collections
    - Needs: Adequate Processing & Instructional Space, Space for Rotating and Permanent Exhibits, Flexible Public Programming & Event Space, & Collection Storage Meeting Industry Standards

# Special Collections Facility: Process

- **JLK/Brightspot/IMEG**
  - **Visioning Discussions with Library and Unit Leaders:**
    - Separate Reading Room, Event Space, Consulting Spaces, and Instructional Rooms
    - Unique Identities: Visually distinct, but co-located units.
    - Build flexibility into instructional and public spaces.
    - Building as a campus landmark.
    - Operational Accommodations: relationship with storage facilities, parking, other library units.
    - Build for Growth: Collections, Programs, and Operations
  - **Resulted in Two Scenarios....**
    - No Addition...
    - Plaza-level Addition...

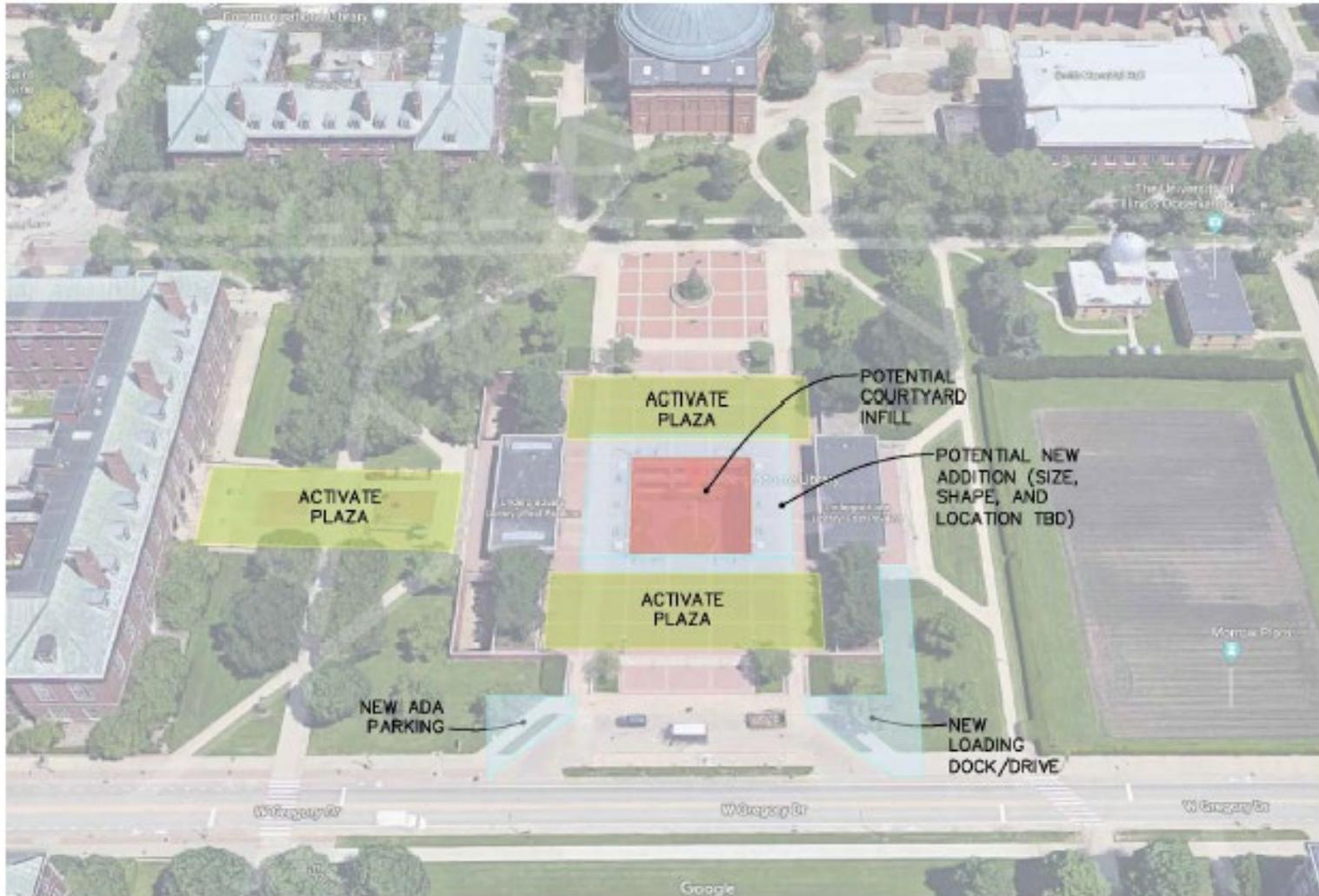
# Special Collections Facility: Process

- **Library/LCWG Comments on First Pass:**
  - Agreement from Library and Special Collections Unit Leadership that space allocations were in the ballpark, even if some locations needed adjustment
  - Agreement that model with no plaza-level addition was less desirable from an operational and architectural standpoint
  - Agreement that while vault space in preliminary models met stated need to accommodate 10-years of growth, more would be better given institutional directions, historic collection strengths, and opportunities presented by this renovation

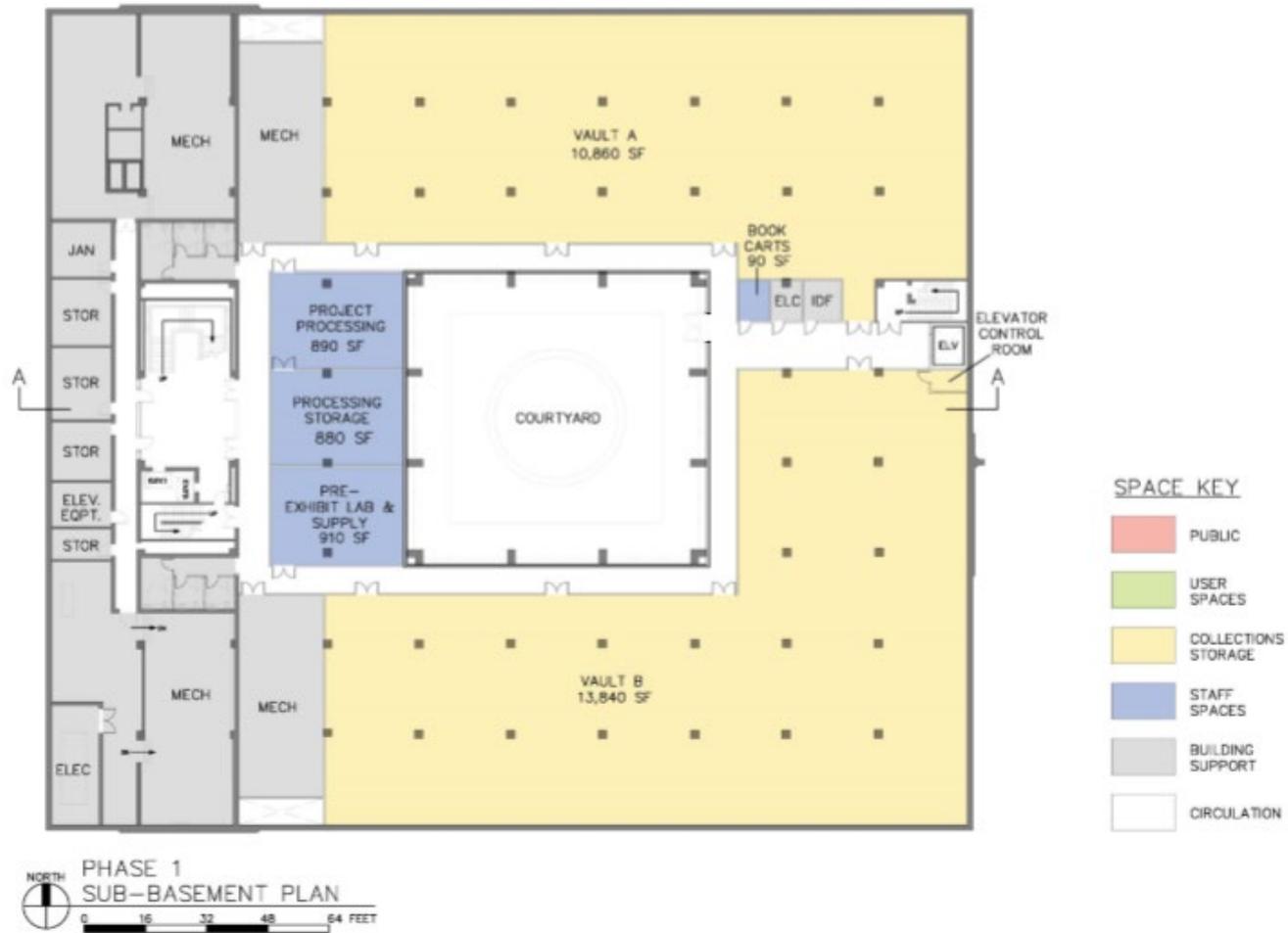
# Special Collections Facility: Final Conceptual Design

- **Incorporated feedback and addressed plaza-level concerns:**
  - Overall project vision includes the plaza-level addition within a phased program.
  - Initial goal included accommodation for 10-years of growth. Resulting plan more than addresses that need:
    - Phase One vault 88.5% larger than needed.
    - Phase Two vault 155% larger than needed.
  - Phase Two Plaza includes nearly 10,000 sq. feet for additional program development

# Site Plan



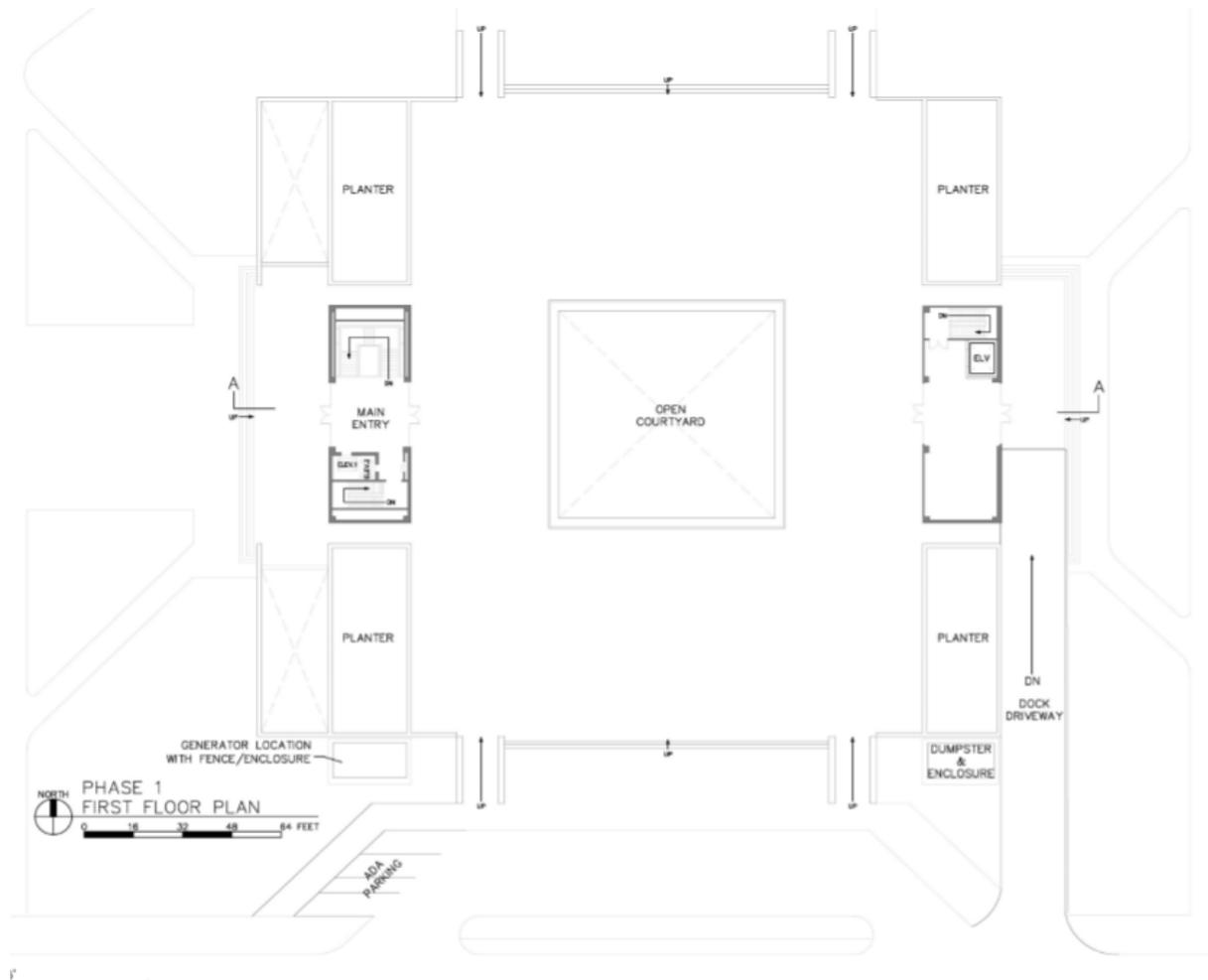
# Final Scenario: Phase 1



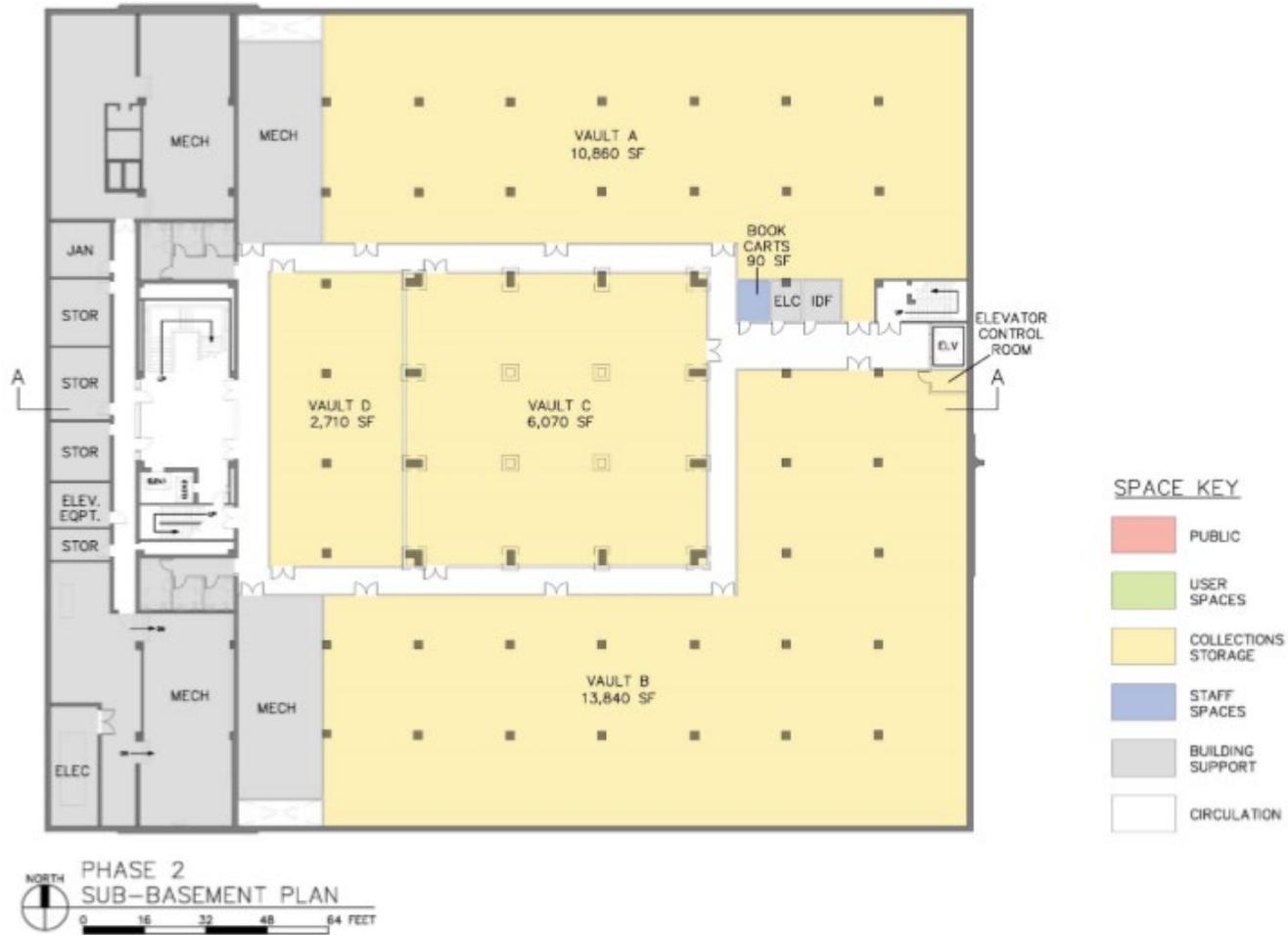
# Final Scenario: Phase 1



# Final Scenario: Phase 1

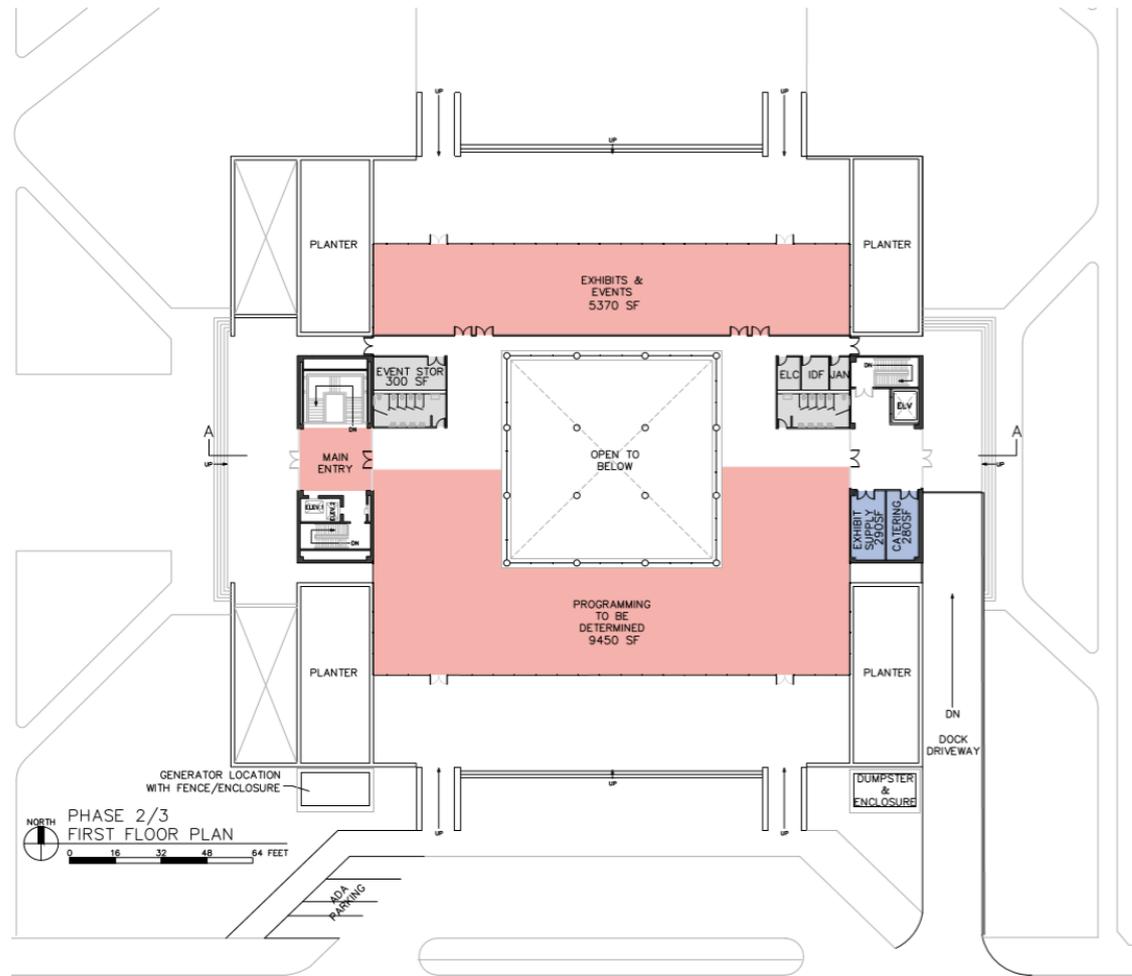


# Final Scenario: Phase 2





# Final Scenario: Phase 2





# The Challenge of the Underground Library

- **Advantages:**
  - Accommodate Needs of Surface Environment & Historic Sites
  - Energy Efficiency
  - Temperature Control
  - Longer Building Life Due to Construction Techniques
  - Tornado Proof....
- **Disadvantages:**
  - Lack of Natural Light
  - Potential for Water Leakage Requires Enhanced Water-proofing Systems
  - Condensation potential requires adequate insulation or mechanical dehumidification



# The Climate....

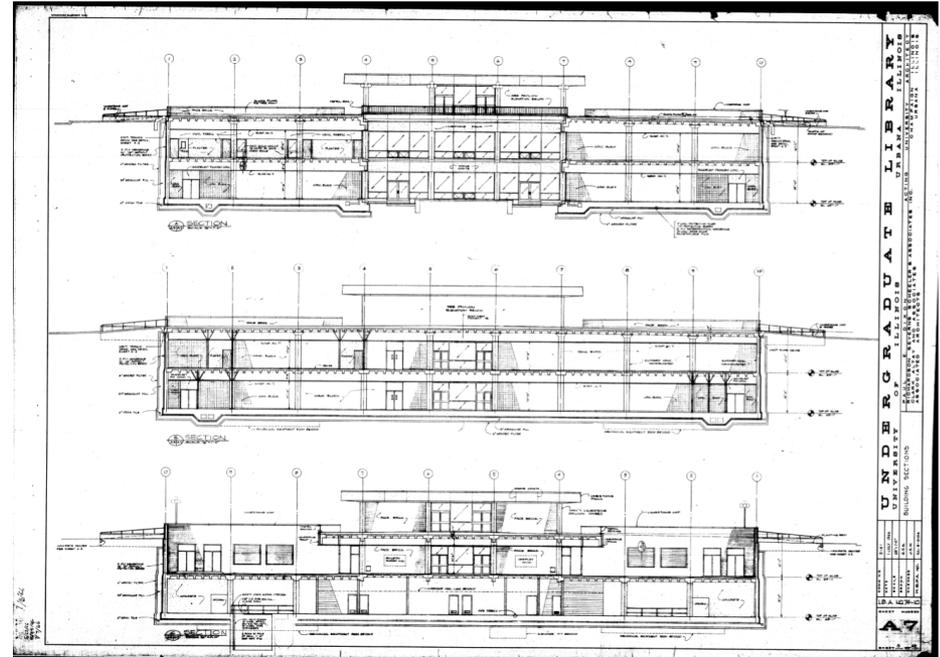
- **Temperature and Relative Humidity for collections storage are often discussed as though standards exist. They do not. There is research on material degradation, and there are best practices.**
- **Curators look to manage the temperature and relative humidity in order to reduce or manage risks:**
  - **Deterioration of Organic Materials**
  - **Mold Blooms**
  - **Pest Infestations**
  - **Mechanical Deformation**
- **Temperature and Relative Humidity Goals:**
  - **Temperature Ideals: Lower is better....**
  - **RH Ideals: 40 – 60% RH considered reasonable for mixed collections with evidence 40 – 45% RH is better.**
- **Work Challenges:**
  - **Cold environments limit access – materials need to acclimate gradually.**
  - **Staffing and working in a cold environment....**

# The Climate – A Managed Environment

- **Oak Street Library Facility (as built from 2003 - 2011) –**
  - 50 degrees (+/- 5) and 30% humidity (+/- 3)
- **Rare Book and Manuscript Library Vault (conservators' recommendation) –**
  - **Temperature:** 60 degrees F +/-3, with alarm at over +/-5
  - **Humidity:** 40% +/-3, with alarm at over +/-5 for either of these
  - **Filtration:** HEPA level particulate; gaseous not required
  - **Circulation:** improved air circulation throughout the vault space
- **Rare Book and Manuscript Library Vault (as built in 2008) -**
  - **Design Criteria:** 60°F ± 2°F, 40% RH ± 5%
- **Recommendations for this Project (Environment, Security, and Storage WG)**
  - **Required:** 60 degrees (+/- 5) and 50% humidity (+/- 5)
  - **Optimal:** 55 degrees (+/- 5) and 45% humidity (+/- 5)
  - **Ideal:** 50 degrees (+/- 5) and 45% humidity (+/- 5)

# The Water Issue....

- Although, the use of subterranean storage vaults for libraries (including special collections) is largely an industry standard, we must be attentive to the risk.
  - In conversations with the Provost and F&S representatives, everyone involved has agreed that taking appropriate steps to mitigate any risk is crucial to the project's success



# The Water Issue – A/E Process (Draft Language) I

“In recognition of the unique and irreplaceable library collection to housed in this facility, the PSC shall engage a specialty subconsultant to review existing conditions and to make recommendations for improvements at the undergraduate library with regard to the resistance of the building to water infiltration from all directions, including, but not limited to floor slab, foundation walls and plaza deck/roof.

This study should:

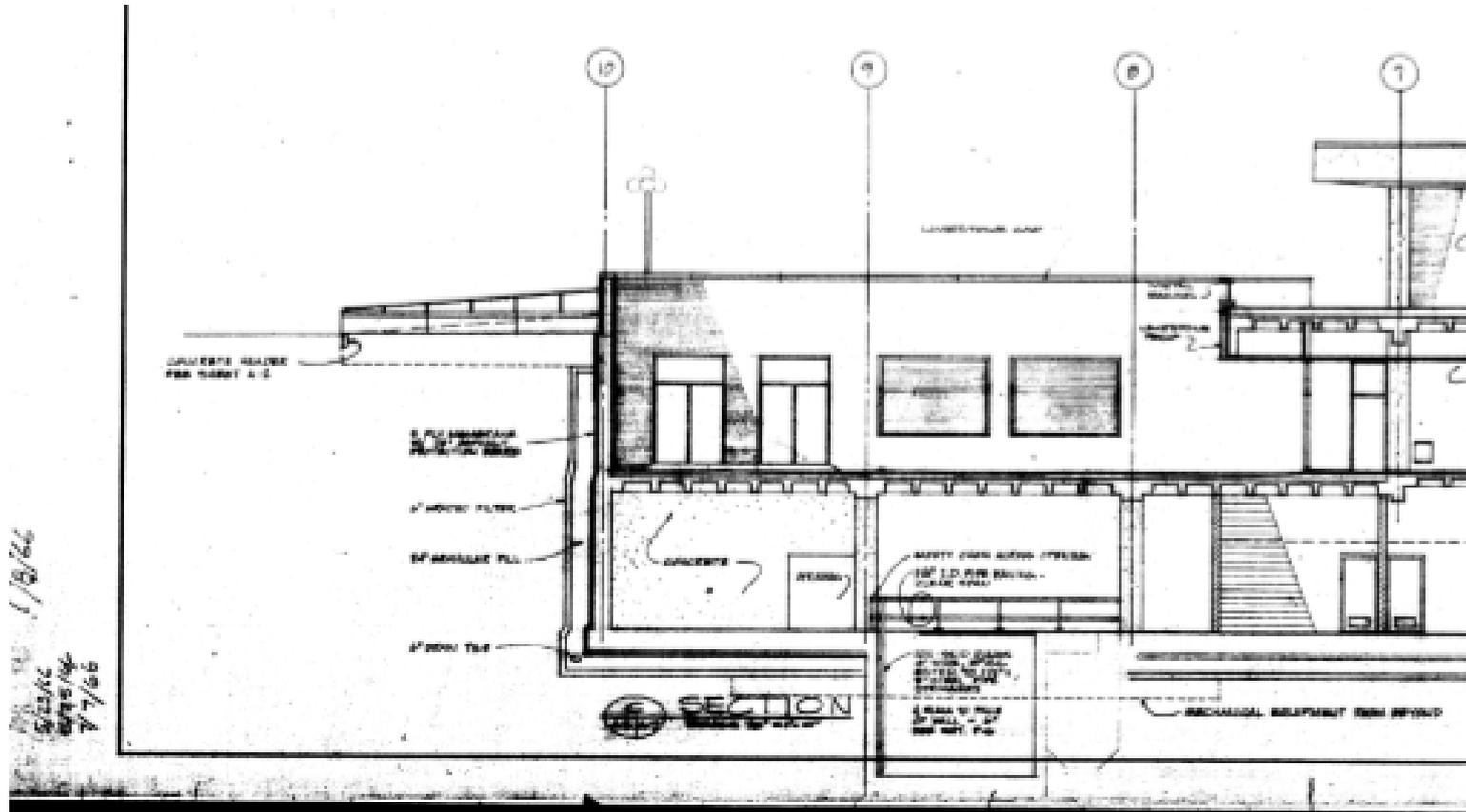
- review details of existing design and construction,
- review groundwater conditions by taking necessary boring in and around the building, including core boring on the interior of the building and courtyard area to determine the degree, if any, groundwater is present within the space between the floor slab and the outer protective “boat” structure,
- review the integrity of the existing construction currently in place,
- review the history of any water infiltration incidents over the life of the building and the corrective/remedial actions taken,
- ...

# The Water Issue – A/E Process (Draft Language) II

- ...
- review the design of similar facilities (below grade special collection facilities) which have been constructed since 1969 to identify “best practices” which should be incorporated into the project,
- review the design of the collection vault enclosures to determine if any additional measures should be included to provide back-up measures against water infiltration into the vaults,
- review the design of the proposed replacement of pumps and related mechanical equipment for redundancy and operation in the event of a power failure,
- review design details related to plaza level building enclosure and its interface with the plaza deck and its waterproofing systems, and
- based on the results of these and other reviews deemed necessary by the specialty subconsultant, make recommendations for inclusion in the building project to ensure the water tightness of the entire structure.”

# The Water Issue – The 1966 Building I

- If we turn our attention to the 1966 drawings and evidence that we have uncovered with F&S' assistance, we can see a few things that might be helpful in this conversation.



# The Water Issue – The 1966 Building II

- **1966: Design**
- **1969: Illinois Alumni News**
  - “Moisture and drainage have presented no problems, though some thought they might ...”
- **May 1986 College and Research Libraries Article**
  - “Because the building is below the water table, it was to be constructed as a concrete boat. Rain and melting snow are taken off by a sump pump system. In the event of failure, an auxiliary generator assures power.”
- **2013: CannonDesign Study**
  - “Oversized sump pump was installed in lowered area of basement mechanical room with the expectation that a below-ground building would have flooding issues, this has turned out to not be the case.”
  - Same study noted that pumps were at end of life, but piping was not.
- **2020: Campus Documentation**
  - Neither Dennis Craig nor Beth Leitz with F&S identified any significant or newsworthy water problems in the building.

# “LCWG Chairs’ Highlights and Observations”

- The Main Library and the Special Collections Facility will be constructed simultaneously.
- UGL services moves to Main Library in order to facilitate development of integrated service model.
- Water infiltration: the University has assured the Library that appropriate measures will be undertaken in order to support the move. ( new special collections facilities have been built underground at the University of Virginia and at Cornell University).
- A/E develop phased plan to utilize internal surge spaces to keep Library operations in place.
- Access to the Rare Book and Manuscript Libraries and the Archives Collection will be fully maintained. No reduction of the current, centrally located collection is planned.
- Following current practice, some Rare Books, Manuscripts, and Archival Collections to be maintained in high density storage.

- Facility-specific Observations:
  - Provide notable architectural light wells at perimeter where needed to provide natural light and views for staff areas as well as public areas.
  - Provide notable architectural enhancements including light wells to provide natural light and views for the tunnel connection between the Special Collections Facility and the Main Library.
  - Provide a notable architectural addition on the top plaza to provide spaces for an enhanced exhibition, humanities and other educational opportunities.
  - Loading dock
  - Accessible parking



# Questions and Discussion...

- Further Information:
  - [www.library.illinois.edu/library-building-project](http://www.library.illinois.edu/library-building-project)
- Submit Feedback:
  - Webform: <https://forms.illinois.edu/sec/4882841>.
  - Email: [librarybuildingproject@library.illinois.edu](mailto:librarybuildingproject@library.illinois.edu).