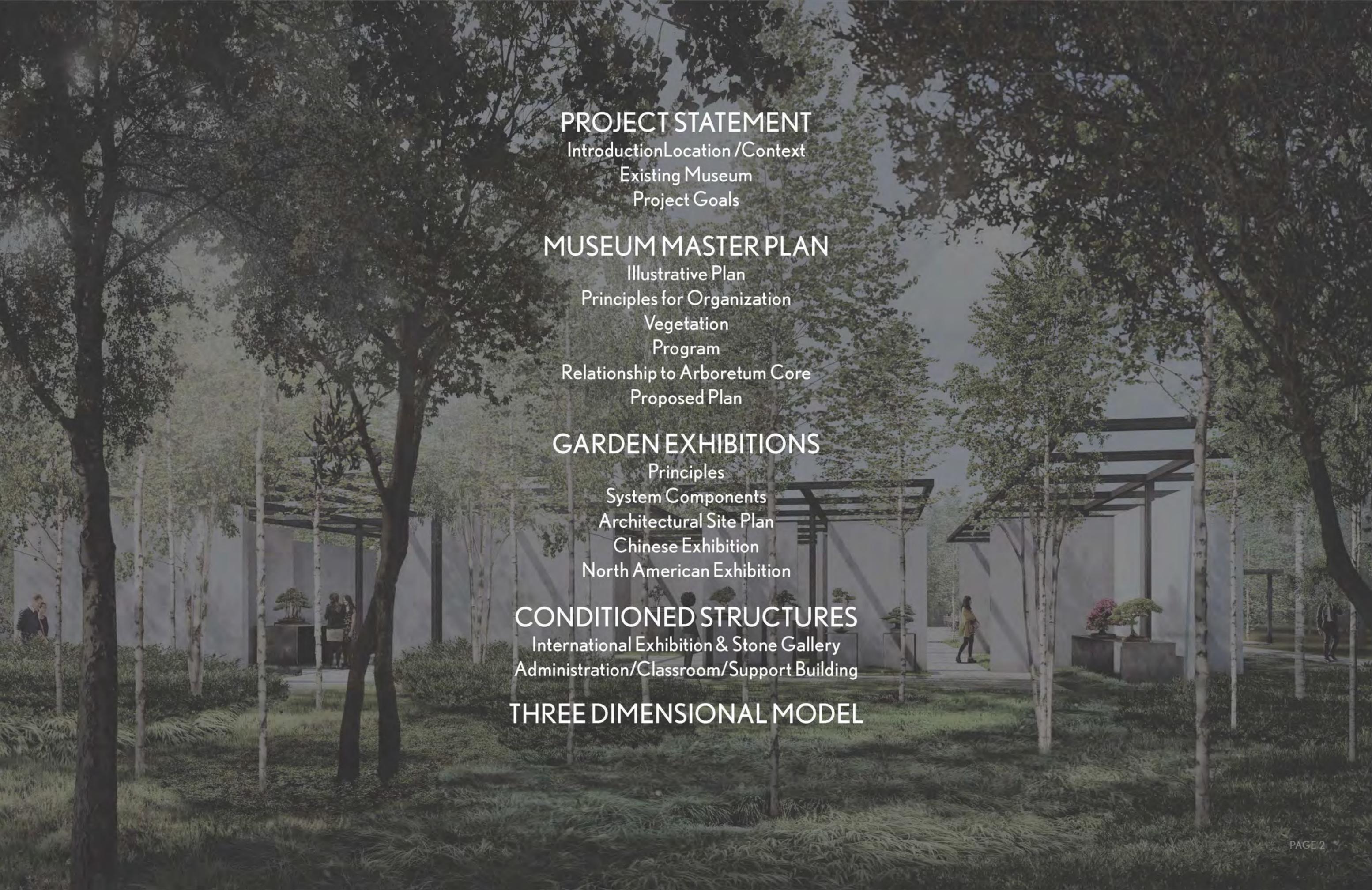


PRESENTATION TO THE US COMMISSION OF FINE ARTS

# National Bonsai & Penjing Museum Concept Plan, USNA

September 3, 2020

REED HILDERBRAND TRAHAN ARCHITECTS



## PROJECT STATEMENT

Introduction/Location /Context  
Existing Museum  
Project Goals

## MUSEUM MASTER PLAN

Illustrative Plan  
Principles for Organization  
Vegetation  
Program  
Relationship to Arboretum Core  
Proposed Plan

## GARDEN EXHIBITIONS

Principles  
System Components  
Architectural Site Plan  
Chinese Exhibition  
North American Exhibition

## CONDITIONED STRUCTURES

International Exhibition & Stone Gallery  
Administration/Classroom/Support Building

## THREE DIMENSIONAL MODEL

# PROJECT STATEMENT

An architectural rendering of a modern building with a glass facade and a dark metal pergola structure, surrounded by lush greenery and trees. The scene is dimly lit, suggesting dusk or dawn. The text "PROJECT STATEMENT" is overlaid in the center.

# PROJECT STATEMENT: INTRODUCTION



Existing complex

# PROJECT STATEMENT: LOCATION WITHIN THE CAPITAL



LOCATION OF UNITED STATES NATIONAL ARBORETUM IN WASHINGTON, D.C.  
(IMAGE FROM GOOGLE EARTH)

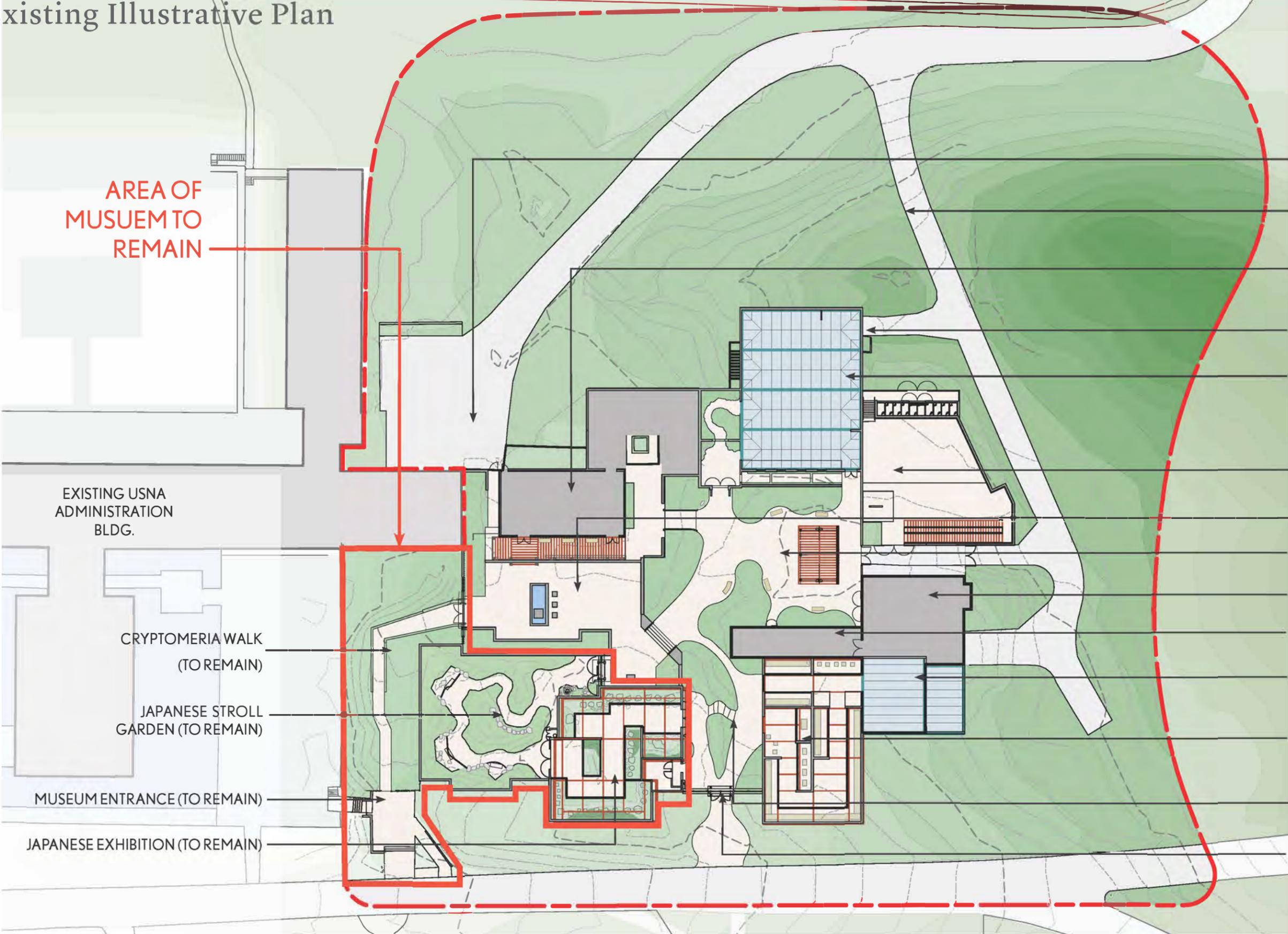


# PROJECT STATEMENT: LOCATION WITHIN ARBORETUM



# EXISTING CONDITIONS ANALYSIS

## Existing Illustrative Plan



AREA OF MUSEUM TO REMAIN

EXISTING USNA ADMINISTRATION BLDG.

CRYPTOMERIA WALK (TO REMAIN)

JAPANESE STROLL GARDEN (TO REMAIN)

MUSEUM ENTRANCE (TO REMAIN)

JAPANESE EXHIBITION (TO REMAIN)

EXISTING SERVICE YARD

EXISTING SERVICE DRIVE

INTERNATIONAL PAVILION & EXHIBITS GALLERY

LOWER LEVEL STORAGE

CHINESE EXHIBITION

WORK AREA & PLANT GROW OUT SPACE

UPPER COURTYARD

LOWER COURTYARD

LECTURE/DEMO CENTER

STAFF OFFICE

TROPICAL CONSERVATORY

NORTH AMERICAN EXHIBITION

GEORGE YAMAGUCHI NATIVE PLANT GARDEN

MUSEUM EXIT



SCALE: 1" = 50'

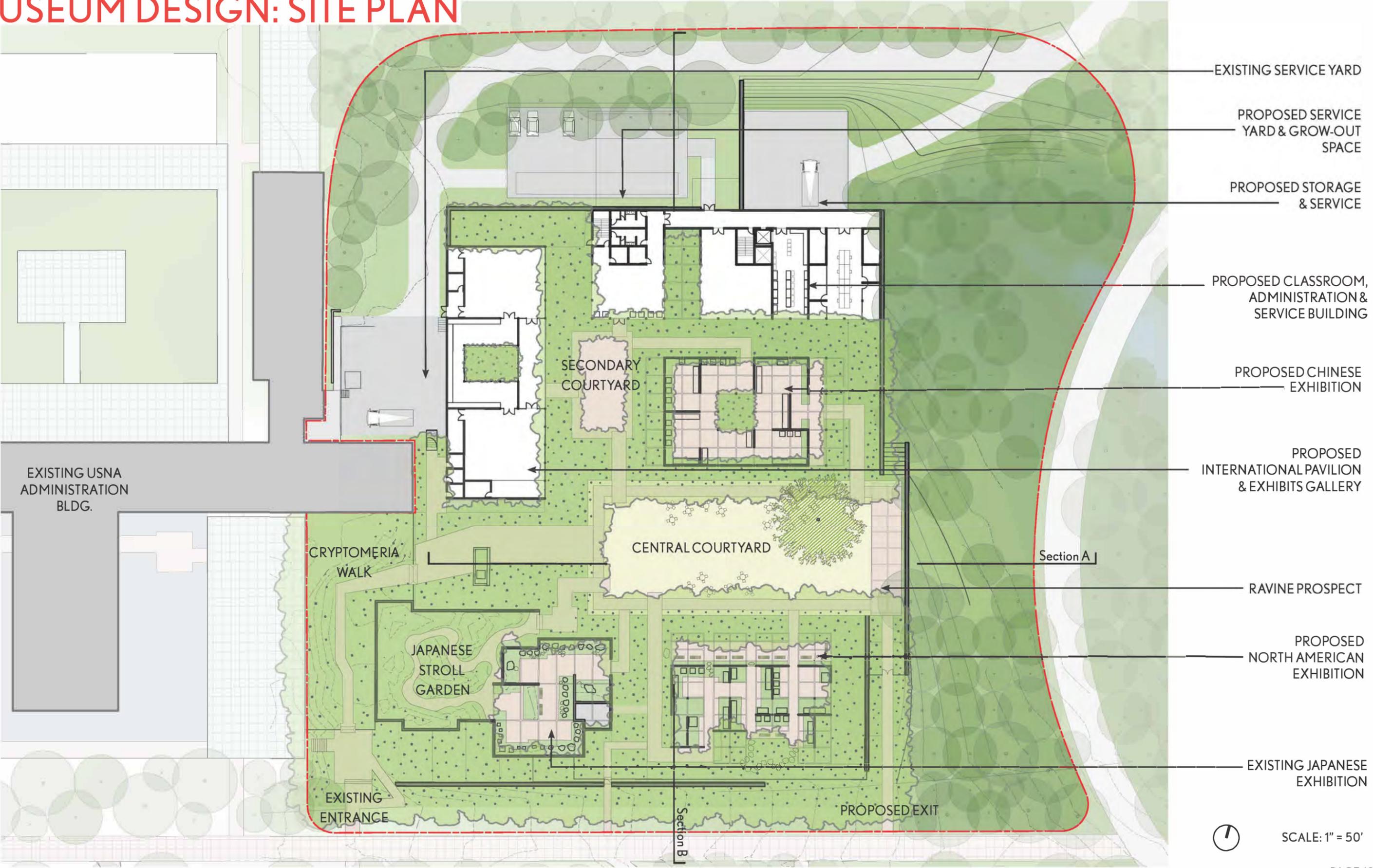
# PROJECT STATEMENT: GOALS

1. Renovate/rebuild the exhibitions to a level of quality expressed in the new Japanese Exhibition
2. Expand exhibits gallery with space for new collections; provide opportunities for interpretation within the collection
3. Bring clarity to the visitor experience including entrance, circulation and wayfinding
4. Improve ability to use the space for events
5. Strengthen the connection between the National Bonsai & Penjing Museum and the Arboretum Core including the future events pavilion
6. Provide universal accessibility throughout the museum complex
7. Consolidate service/operations, improving their functions while providing support space for events

# MUSEUM DESIGN



# MUSEUM DESIGN: SITE PLAN

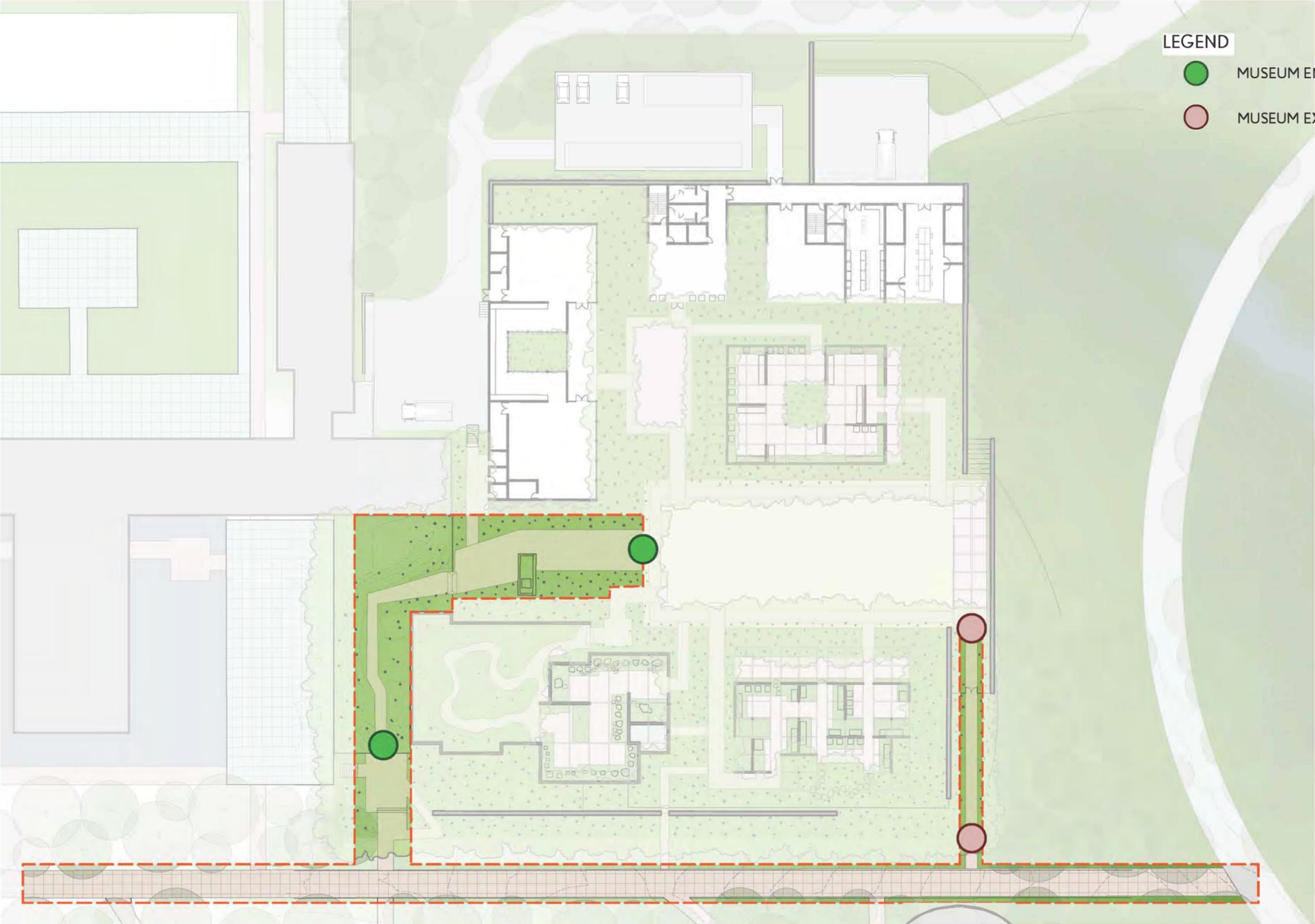


# MUSEUM DESIGN: PRINCIPLES FOR ORGANIZATION

1. Provide clear points of entry into the museum complex from the arboretum core, defined by gardens
2. Develop a central court with flexible use to unify the museum complex
3. Provide identifiable entrances into each exhibition located on the central court
4. Develop a garden at each exhibition entrance that prepares visitors for the bonsai experience within; allow adequate space for small groups to gather
5. Create clear, directional circulation through the bonsai collections; visitors should not wonder if they have missed a portion of the collection
6. Separate and clarify exhibition entries and exits
7. Privilege the bonsai exhibitions and minimize the presence of service/support in the complex; organize service spaces to support the goals of the Master Plan Update

# MUSEUM DESIGN: PRINCIPLES FOR ORGANIZATION

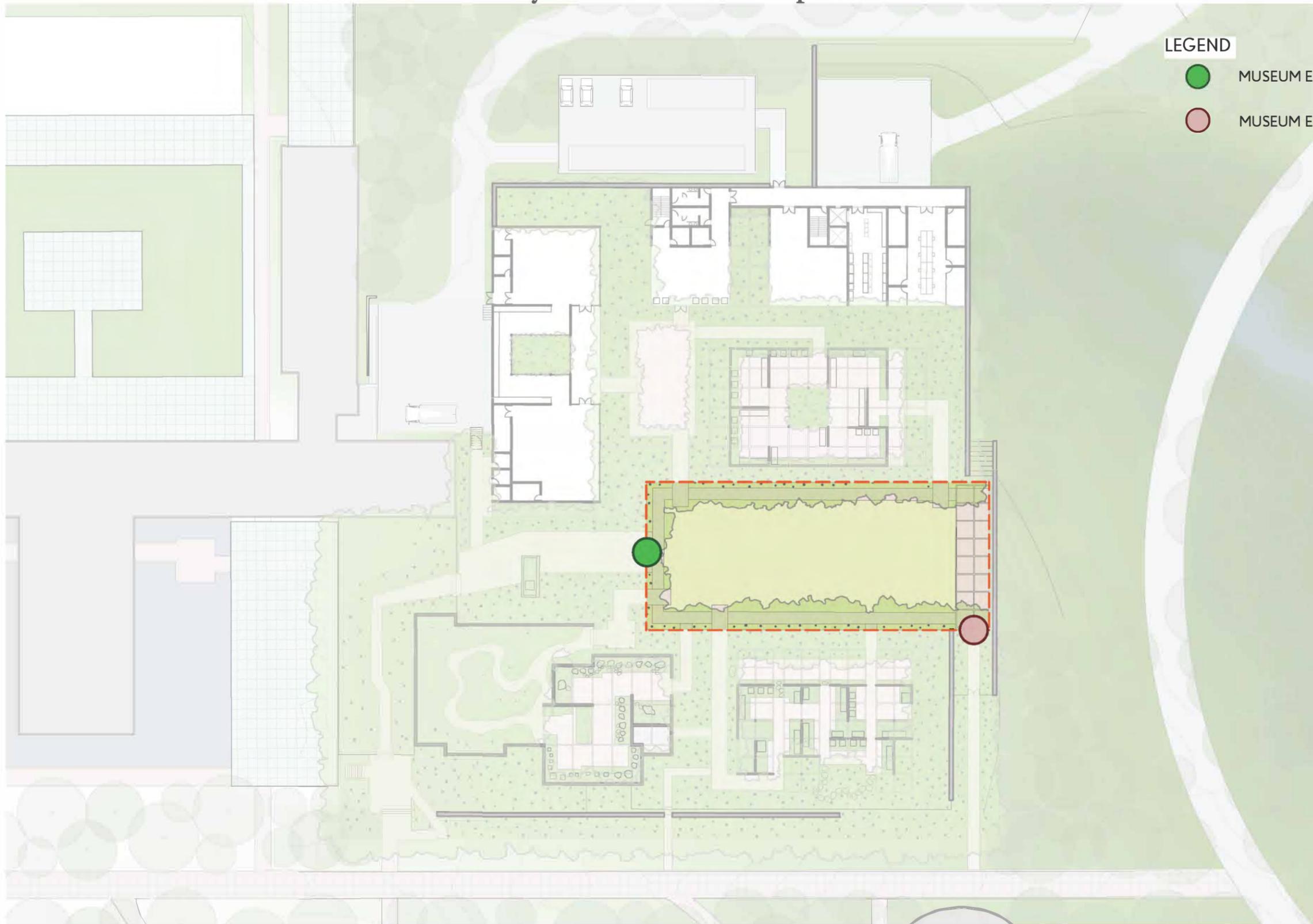
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SCALE: 1" = 50'

# MUSEUM DESIGN: PRINCIPLES FOR ORGANIZATION

2. Develop a central court with flexible use to unify the museum complex



# MUSEUM DESIGN: PRINCIPLES FOR ORGANIZATION

## 2. Develop a central court with flexible use to unify the museum complex



# MUSEUM DESIGN: PRINCIPLES FOR ORGANIZATION

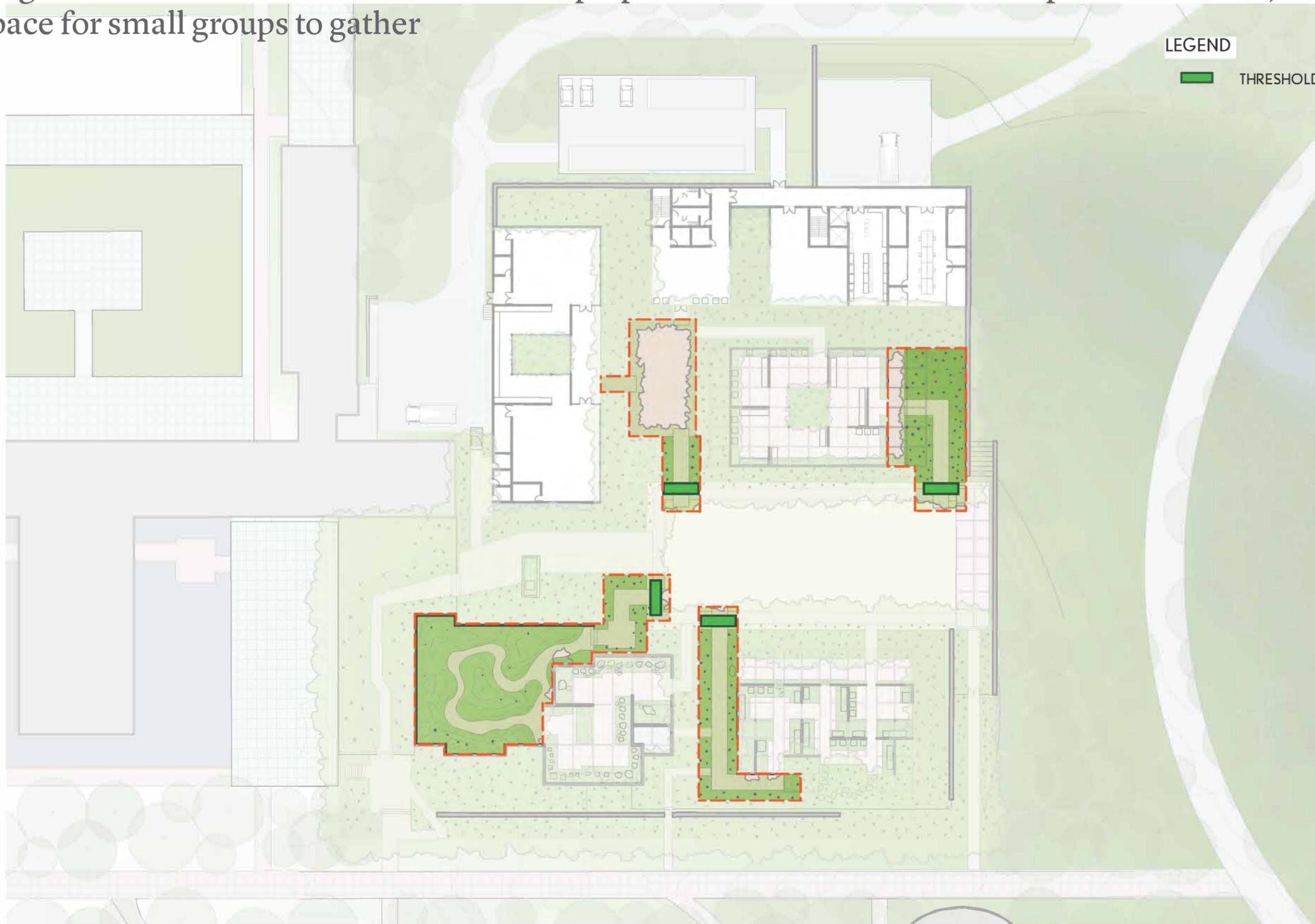
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SCALE: 1" = 50'

# MUSEUM DESIGN: PRINCIPLES FOR ORGANIZATION

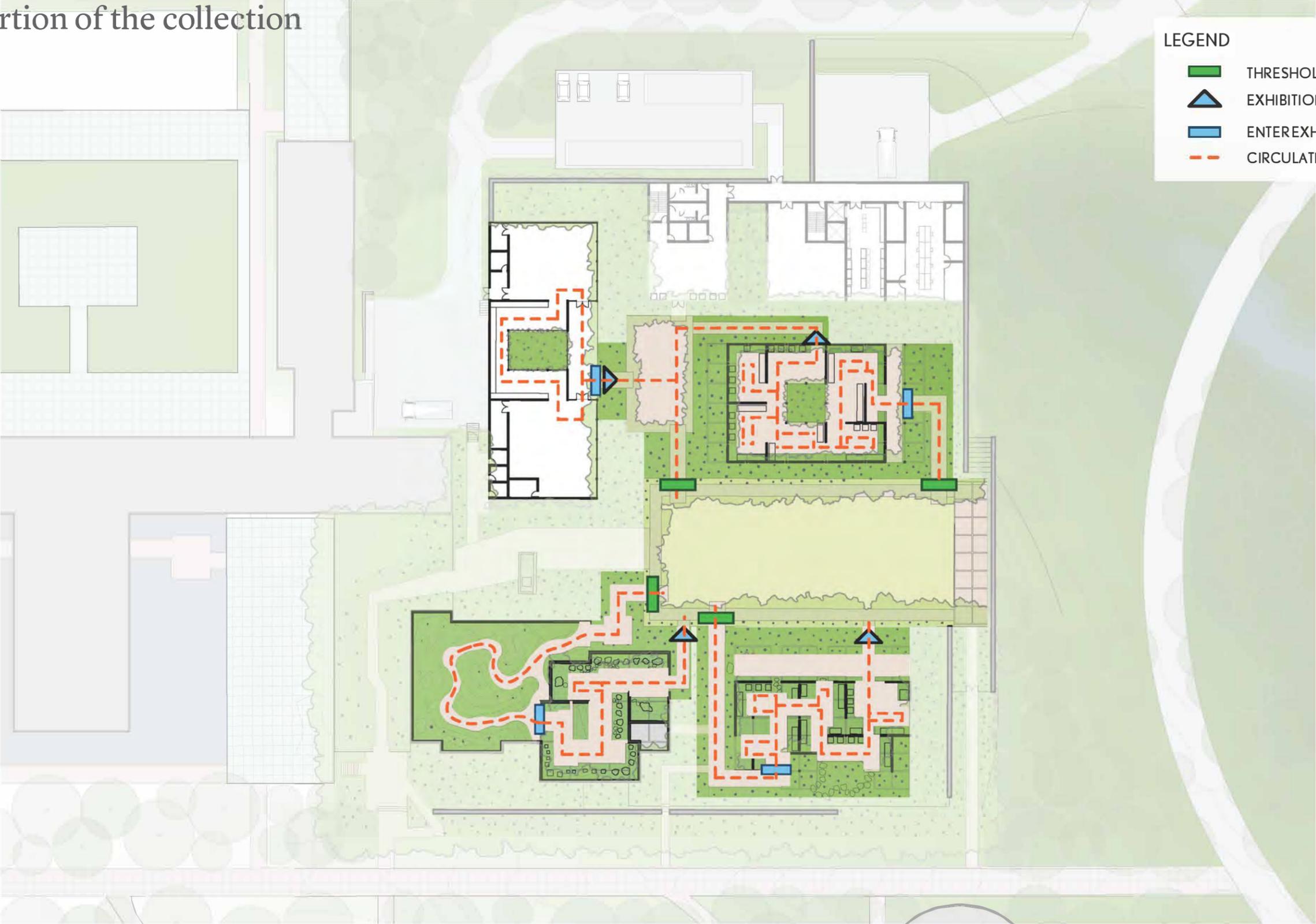
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SCALE: 1" = 50'

# MUSEUM DESIGN: PRINCIPLES FOR ORGANIZATION

5. Create clear, directional circulation through the bonsai collections; visitors should not wonder if they have missed a portion of the collection



SCALE: 1" = 50'

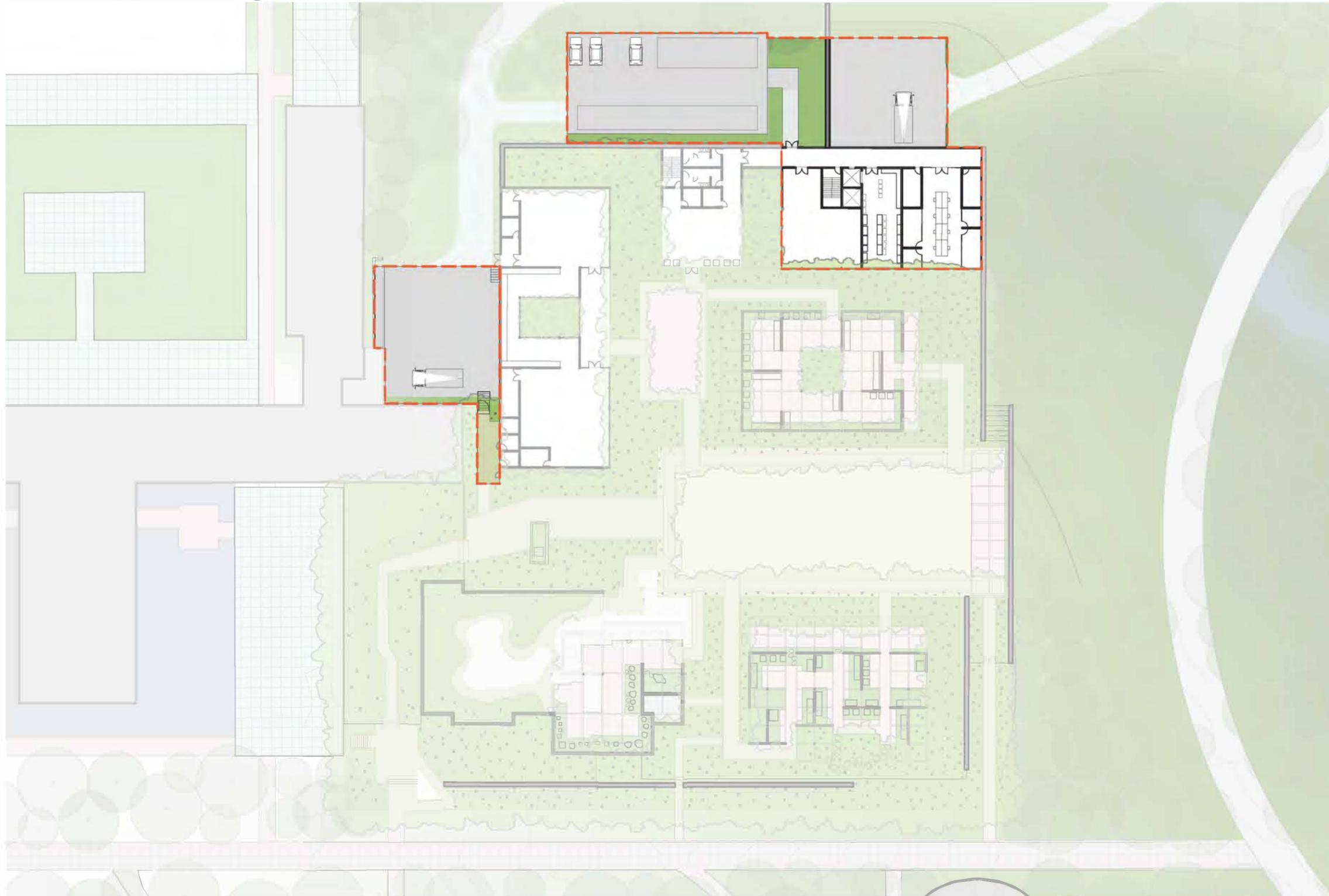
# MUSEUM DESIGN: PRINCIPLES FOR ORGANIZATION

## 6. Separate and clarify exhibition entries and exits



# MUSEUM DESIGN: PRINCIPLES FOR ORGANIZATION

7. Privilege the bonsai exhibitions and minimize the presence of service/support in the complex; organize service spaces to support the goals of the Master Plan Update



SCALE: 1" = 50'

# MUSEUM DESIGN: VEGETATION

Develop the exhibitions as gardens for shade, the cooling benefits of vegetation, and to create a connection between the larger landscape and the intimate bonsai



Precedent: Pacific Northwest Bonsai Museum



SCALE: 1" = 50'

# MUSEUM DESIGN: VEGETATION

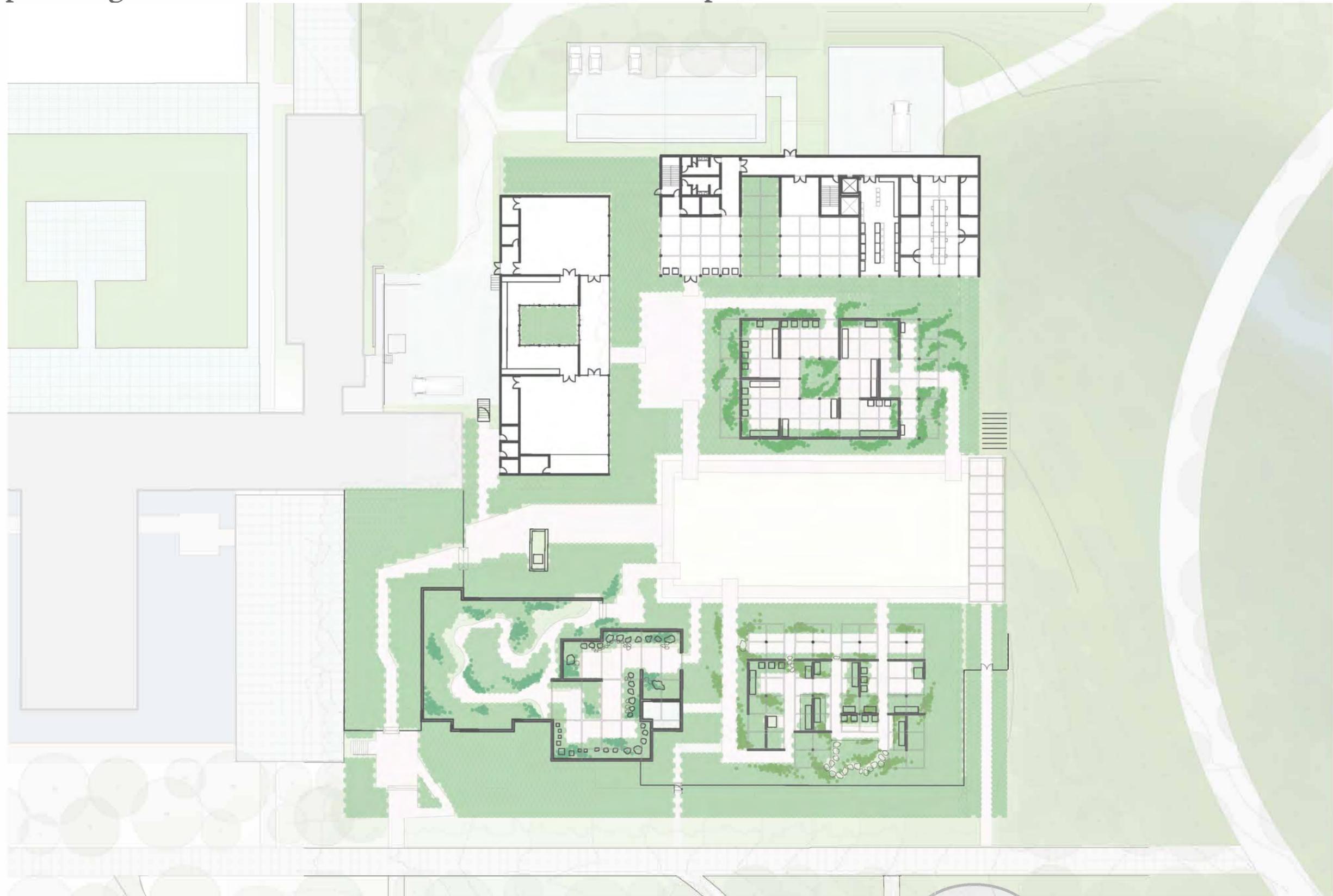
A pervasive grove of understory trees unify the gardens/museum perimeter



NOVARTIS HEADQUARTERS. BASEL, SWITZERLAND  
BY PWP

# MUSEUM DESIGN: VEGETATION

Ground plantings reflect the cultural association of each pavilion



SCALE: 1" = 50'

# MUSEUM DESIGN: VEGETATION

Understory trees with evergreen groundcovers: potential species selection



*CARPINUS CAROLINIANA*



*MAGNOLIA VIRGINIANA*



*BETULA POPULIFOLIA*



*AMELANCHIER SP.*



*SARCOCOCCA HOOKERIANA*



*HAKONECHLOA MACRA*



*CAREX PENNSYLVANICA*



*JUNIPERUS CHINENSIS*

# MUSEUM DESIGN: PROGRAM

## Existing and Proposed Programs



### LEGEND

- EXHIBITION
- GARDEN
- COURTYARD
- EVENT PREPARATION
- ADMINISTRATION
- CLASSROOM
- RESTROOM
- SERVICE
- WORKSPACE



SCALE: NTS

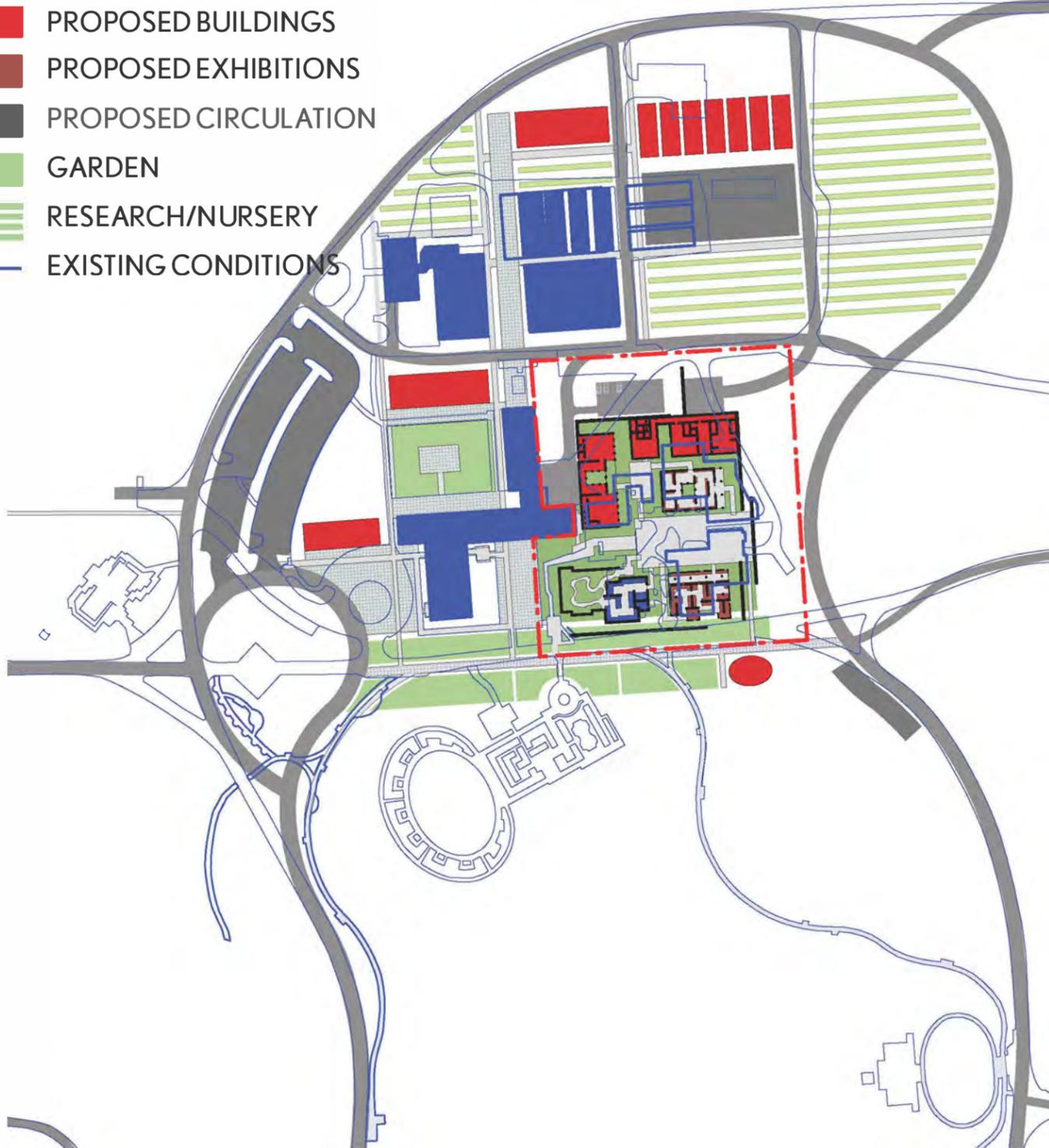
# MUSEUM DESIGN: RELATIONSHIP TO ARBORETUM CORE

## Existing and Proposed

- EXISTING BUILDINGS
- EXISTING CIRCULATION



- EXISTING TO REMAIN
- PROPOSED BUILDINGS
- PROPOSED EXHIBITIONS
- PROPOSED CIRCULATION
- GARDEN
- RESEARCH/NURSERY
- EXISTING CONDITIONS



# MUSEUM DESIGN

Illustrative Aerial rendering



# GARDEN EXHIBITIONS

A photograph of a garden exhibition space. The scene is dominated by a long, white wall with a black metal trellis structure on top. Several potted plants, including bonsai trees and flowering plants, are displayed on small, dark pedestals along the wall. People are seen walking through the space, some looking at the plants. The foreground is filled with lush green grass and various trees, including birches and larger leafy trees. The overall atmosphere is serene and well-maintained.

# GARDEN EXHIBITIONS: PRINCIPLES

1. Each exhibition shall reflect the cultural expression of the bonsai or penjing within it, whether subtle or distinct
2. Promote the exhibitions as gardens rather than buildings
3. Create clear circulation through the exhibition for ease of wayfinding
4. Configure spaces to bring elements of surprise, revelation, and discovery to the visitor experience; allow for moments of pause and reflection within the exhibitions
5. Provide apertures in the exhibition enclosure for borrowed views and air flow
6. Incorporate vegetation into the exhibitions for cooling benefits
7. Allow for many solar orientations and micro-climates of the bonsai tree display areas to promote flexibility of use and tree rotation

# GARDEN EXHIBITIONS: PRINCIPLES

8. Allow for ease of access and maintenance for museum staff
9. Provide physical barriers or visual cues to keep visitors at appropriate distance from the trees
10. Utilize durable materials that will age or patina over time, reflecting the longevity of the bonsai or penjing tradition
11. Forego winterization of exhibitions; develop overhead structural system for shade and lighting

# GARDEN EXHIBITIONS: SYSTEM COMPONENTS

Precedent & Inspiration



..... Backdrop Walls



..... Floating Displays



..... Columns/Veranda

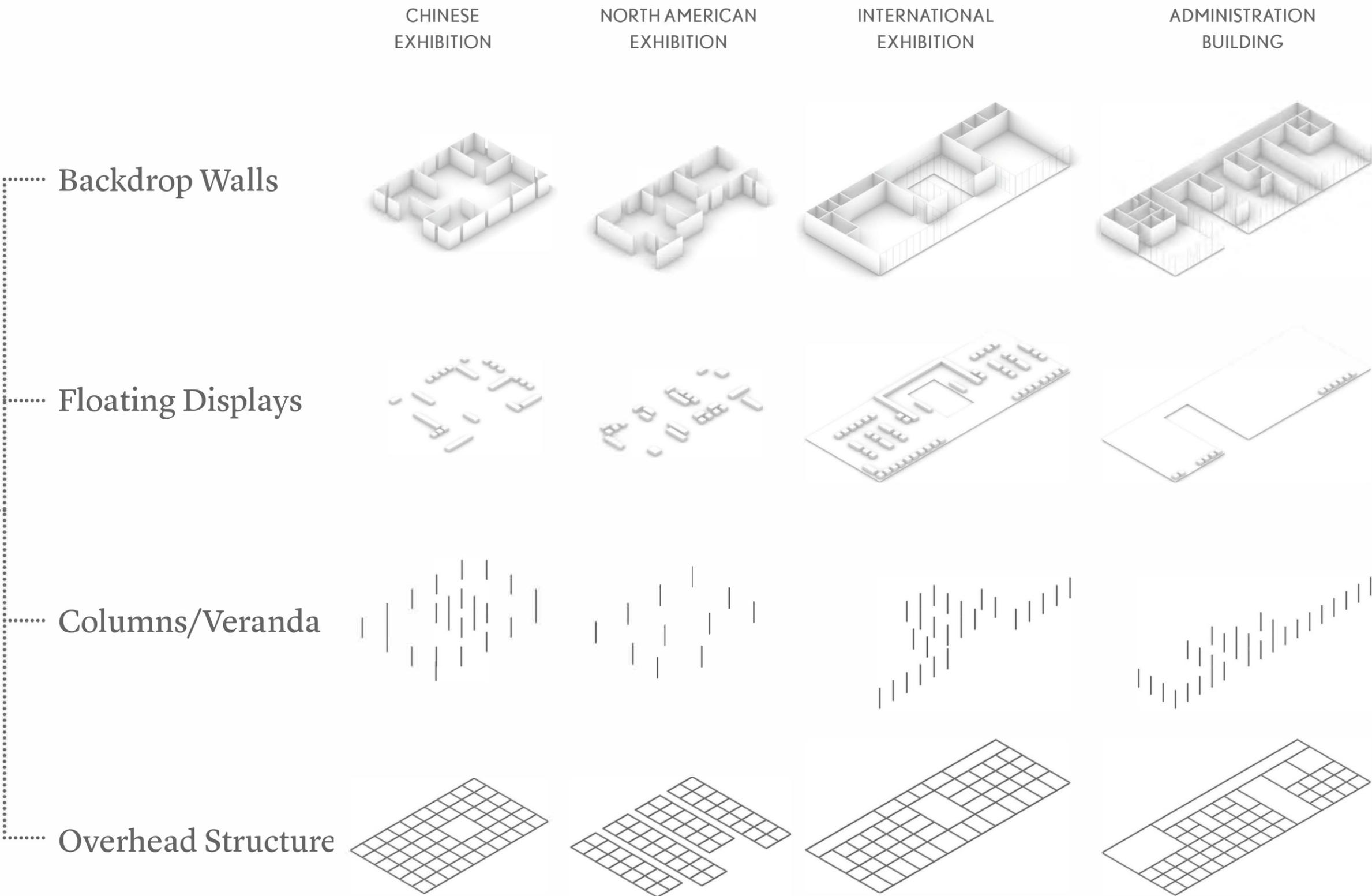


..... Overhead Structure



# GARDEN EXHIBITIONS: SYSTEM COMPONENTS

## Organization



# GARDEN EXHIBITIONS: SYSTEM COMPONENTS

## Materiality

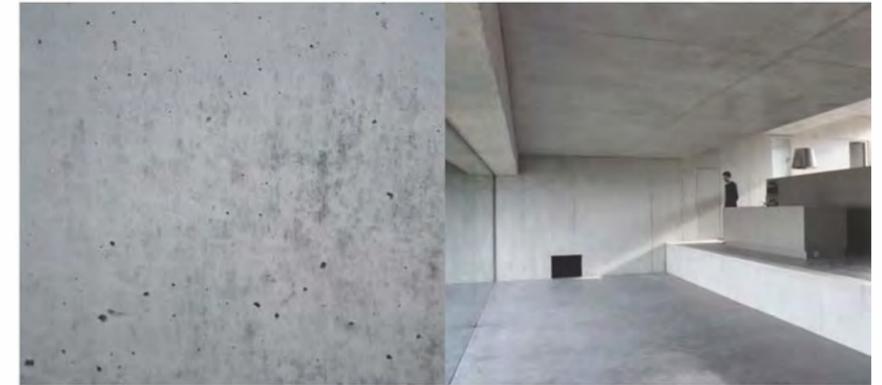
### Backdrop Walls

Concrete



### Interior Floors

Exposed Concrete



### Floating Displays

Wood Block/  
Concrete/Stone



### Interior Ceilings

Plaster/Fabric



### Columns/Veranda Overhead Structure

Shou Sugi Ban or  
Treated Wood



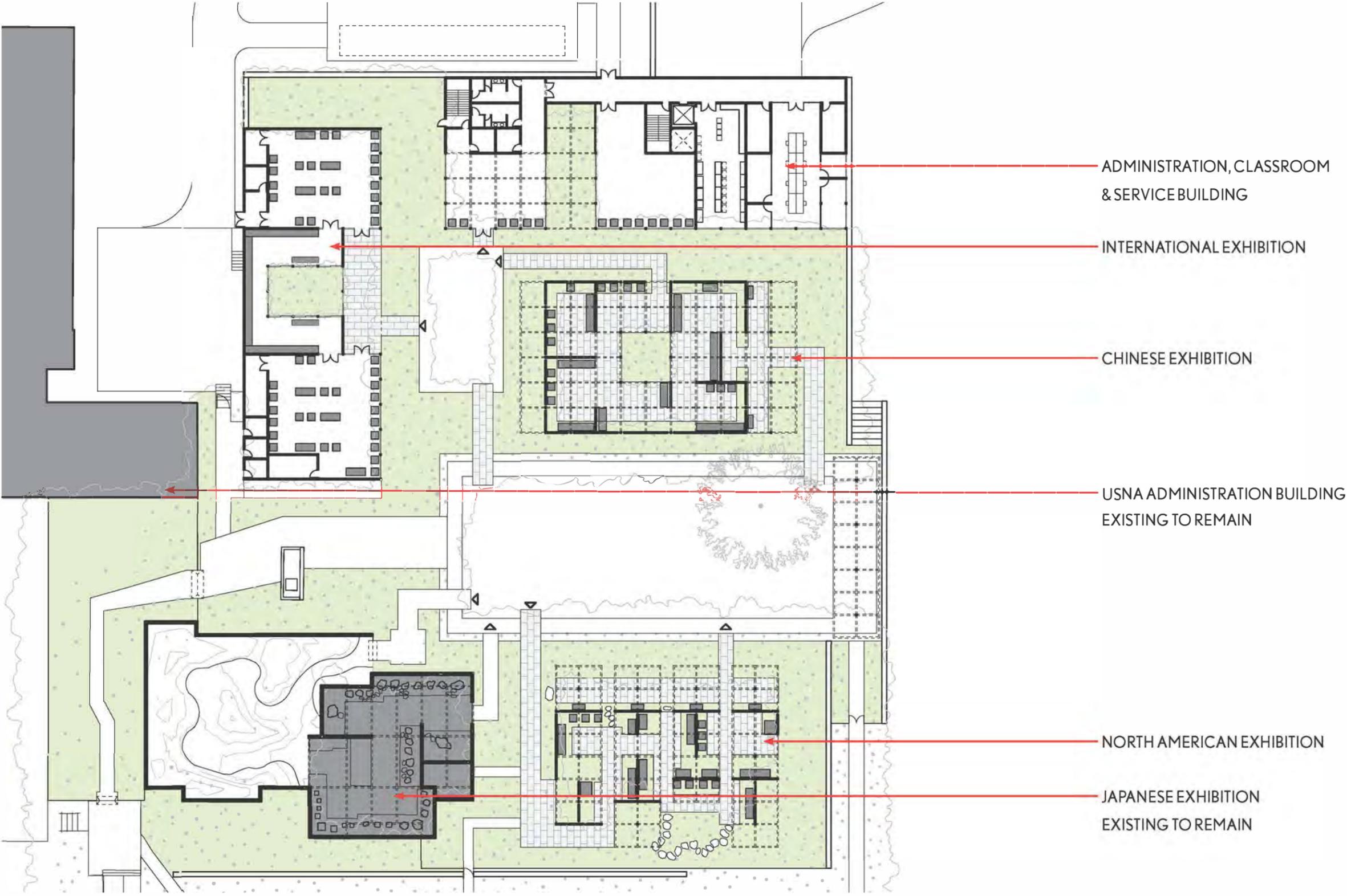
### Glazing/Skylights

IGU with Dark Frame



# GARDEN EXHIBITIONS: ARCHITECTURAL SITE PLAN

## Museum Relationships



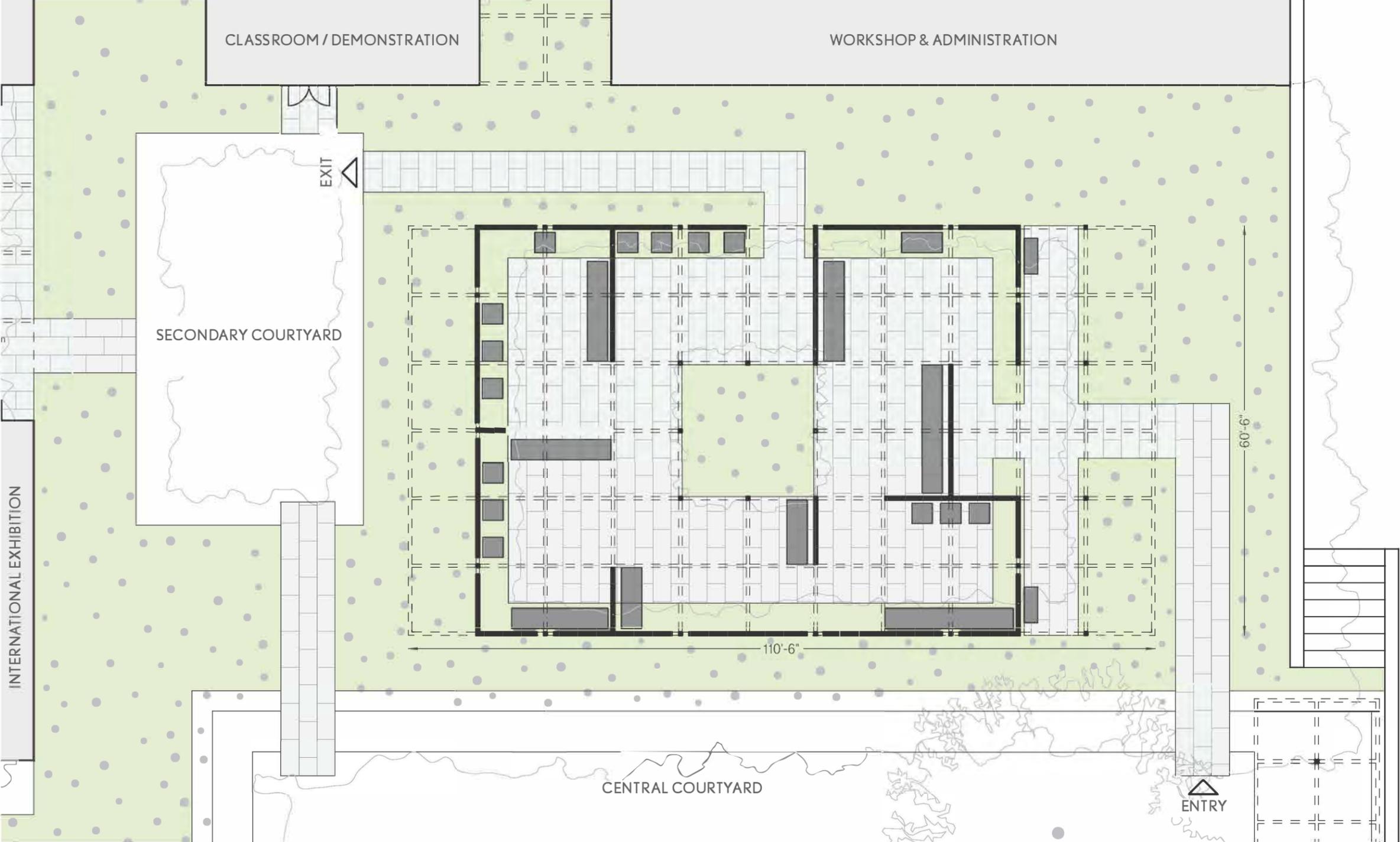
# GARDEN EXHIBITIONS: CENTRAL COURTYARD

Rendering looking East



# GARDEN EXHIBITIONS: CHINESE EXHIBITION

## Plan



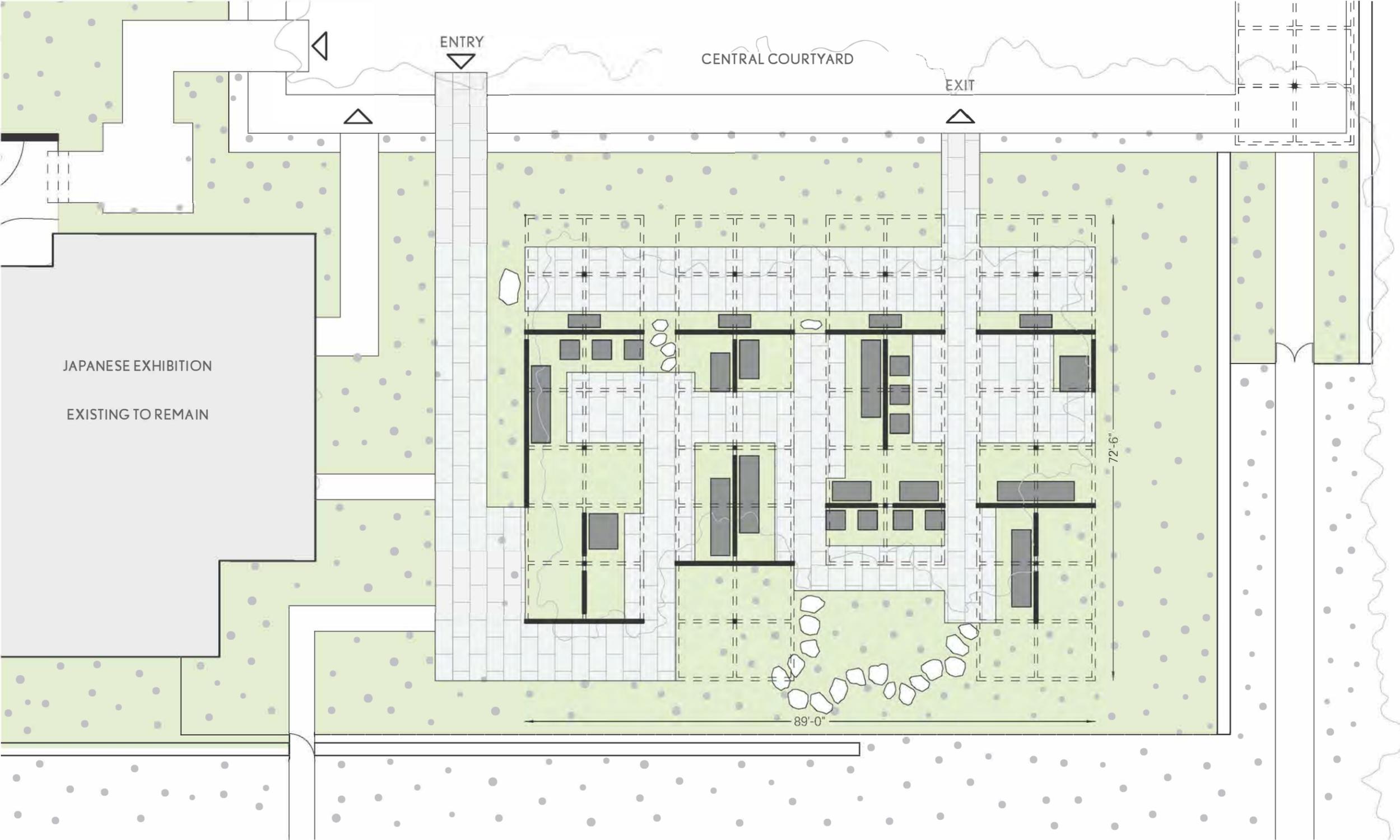
# GARDEN EXHIBITIONS: CHINESE EXHIBITION

Exterior View of Entry Looking West



# GARDEN EXHIBITIONS: NORTH AMERICAN EXHIBITION

## Plan



# GARDEN EXHIBITIONS: NORTH AMERICAN EXHIBITION

Exterior View of South Elevation



# GARDEN EXHIBITIONS: NORTH AMERICAN EXHIBITION

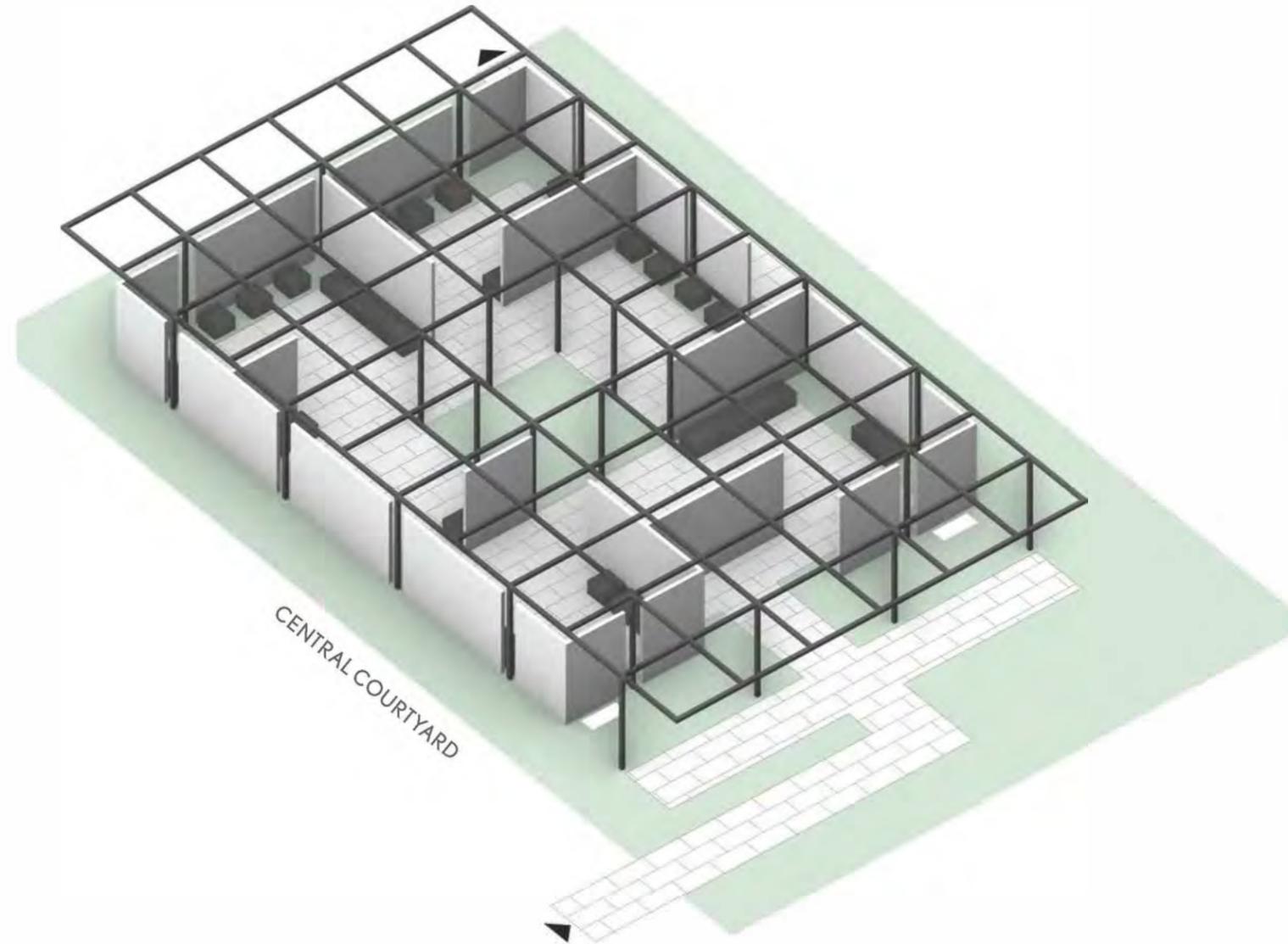
Interior View, Featuring Goshin



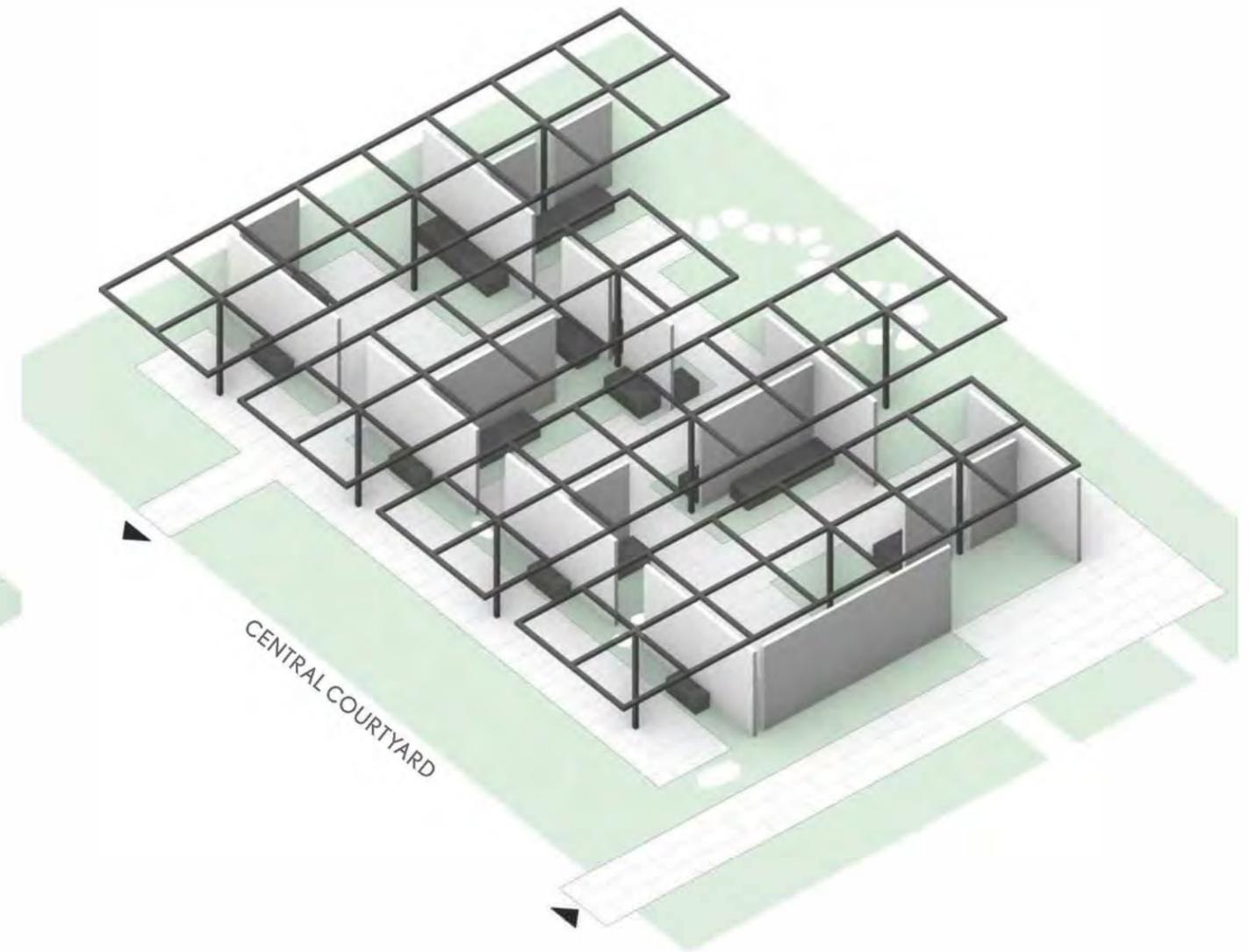
# GARDEN EXHIBITIONS AXONOMETRIC

Chinese Exhibition + North American Exhibition

CHINESE EXHIBITION



NORTH AMERICAN EXHIBITION



# CONDITIONED STRUCTURES

An architectural rendering of a garden space. The scene is dominated by a series of white, rectangular structures with dark metal frames, arranged in a line. These structures are partially covered by a grid of dark metal beams, creating a series of covered walkways. The garden is filled with various types of trees, including tall, thin birches and larger, leafy trees. The ground is covered with green grass and low-lying plants. Several people are visible, walking through the garden and looking at the structures. The overall atmosphere is serene and modern.

# CONDITIONED STRUCTURES: INTERNATIONAL EXHIBITION & STONE GALLERY

Plan



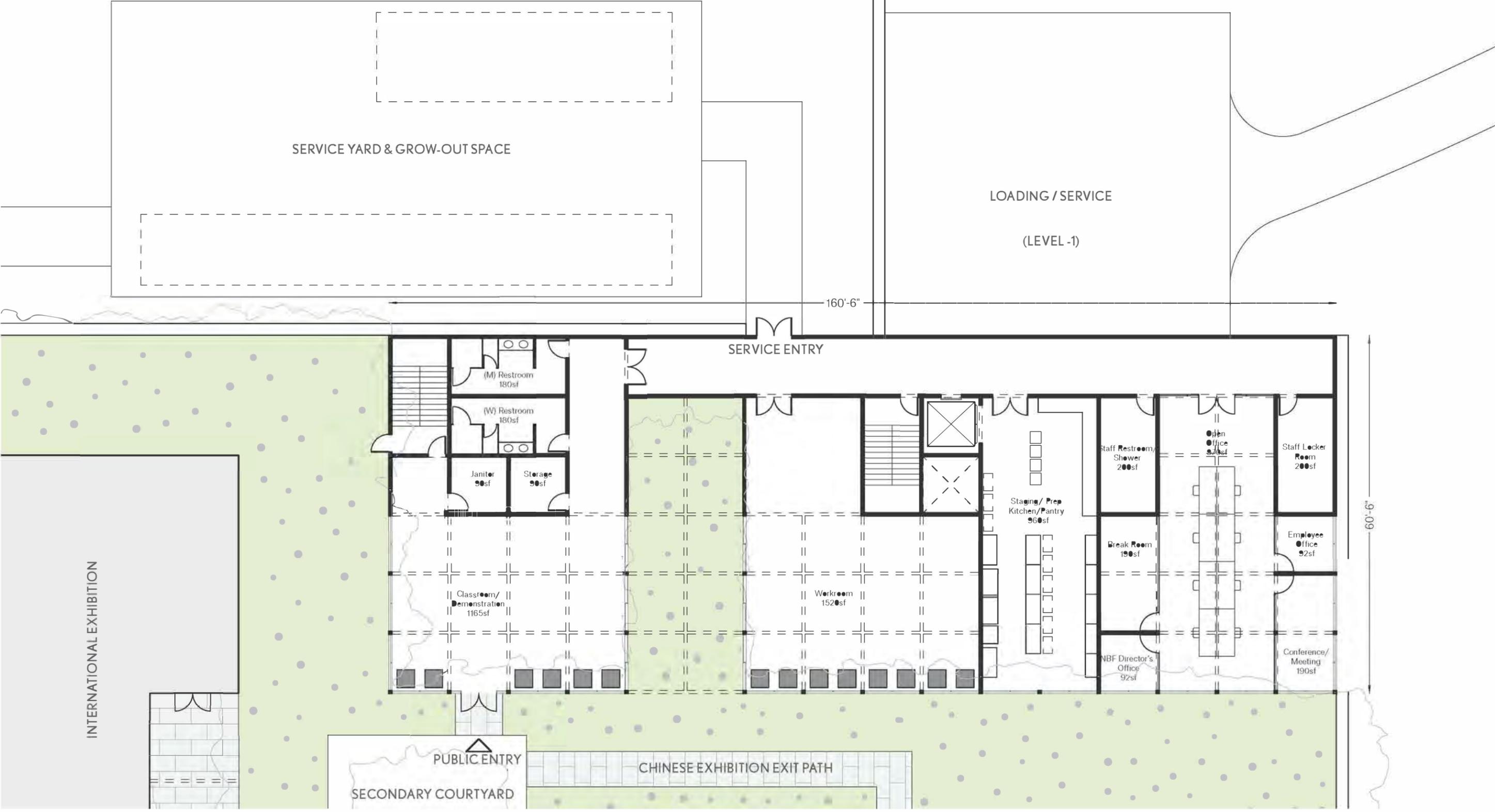
# CONDITIONED STRUCTURES: INTERNATIONAL EXHIBITION & STONE GALLERY

Interior View of Stone Gallery [Kemin Hu Gallery]



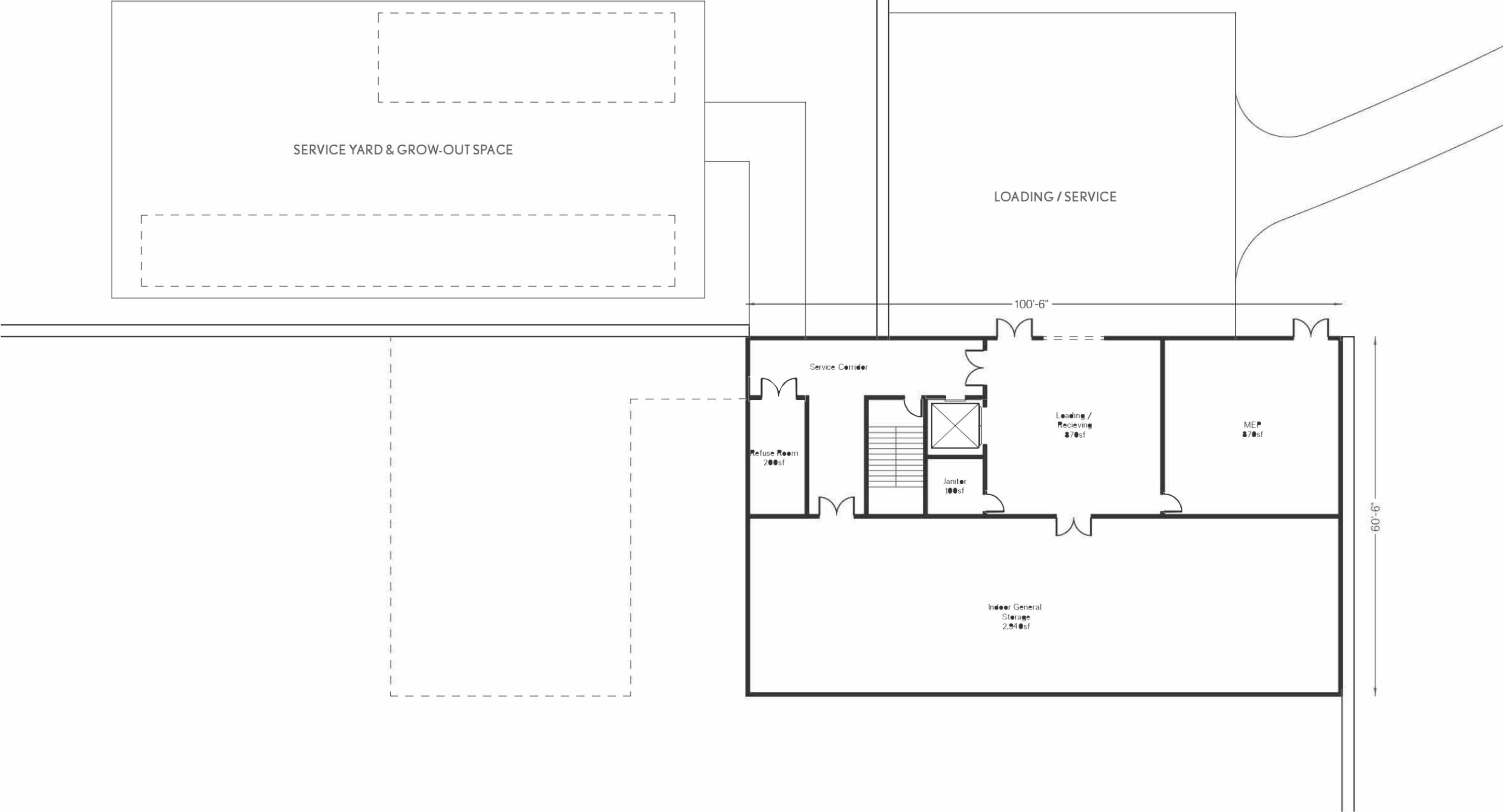
# CONDITIONED STRUCTURES: ADMIN., CLASSROOM & SERVICE BUILDING

Plan : Level 1



# CONDITIONED STRUCTURES: ADMIN., CLASSROOM & SERVICE BUILDING

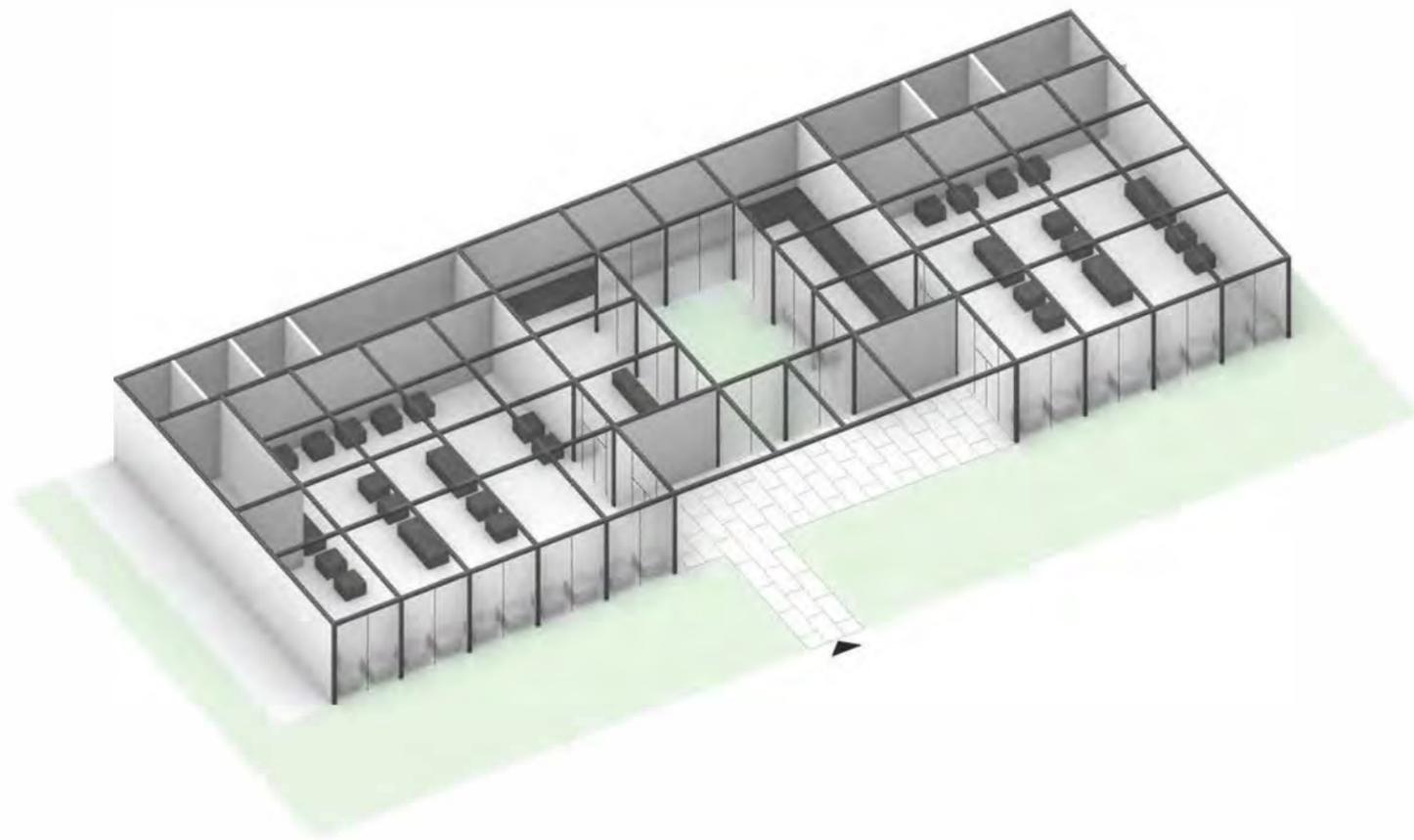
Plan : Level -1



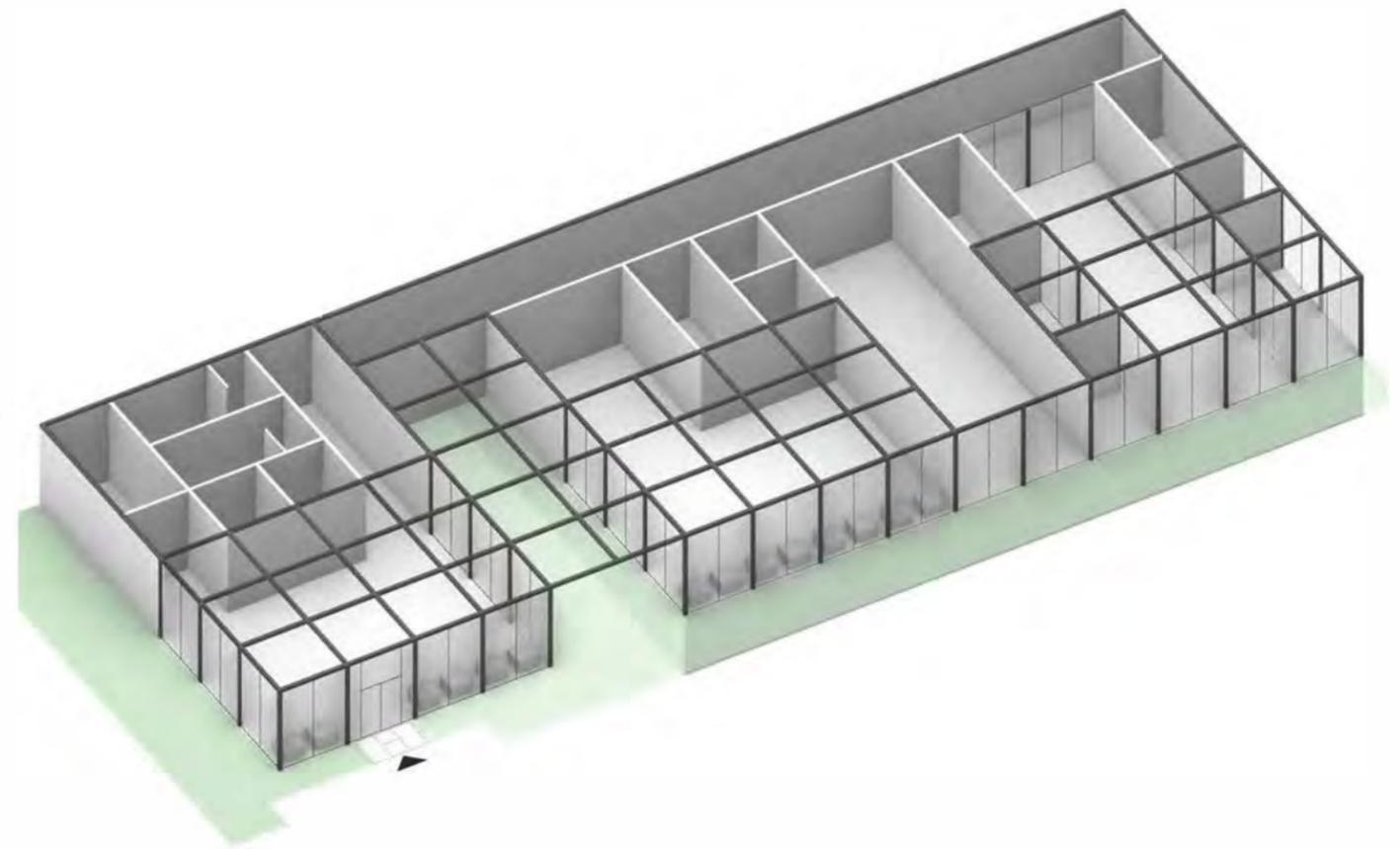
# CONDITIONED STRUCTURES AXONOMETRIC

## International Exhibition & Stone Gallery + Administration, Classroom & Service Building

INTERNATIONAL EXHIBITION & STONE GALLERY



ADMINISTRATION, CLASSROOM & SERVICE BUILDING

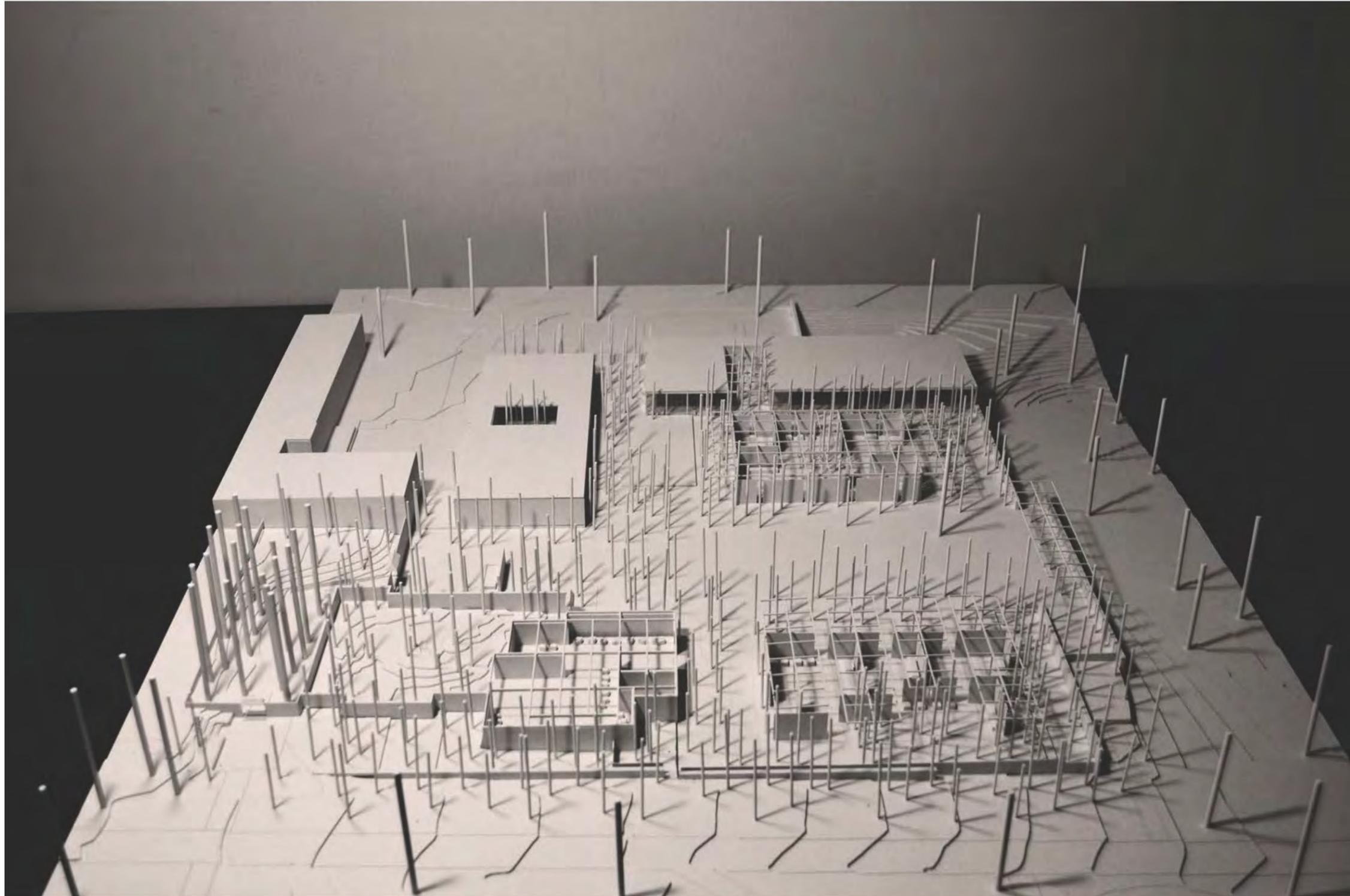


# THREE DIMENSIONAL MODEL



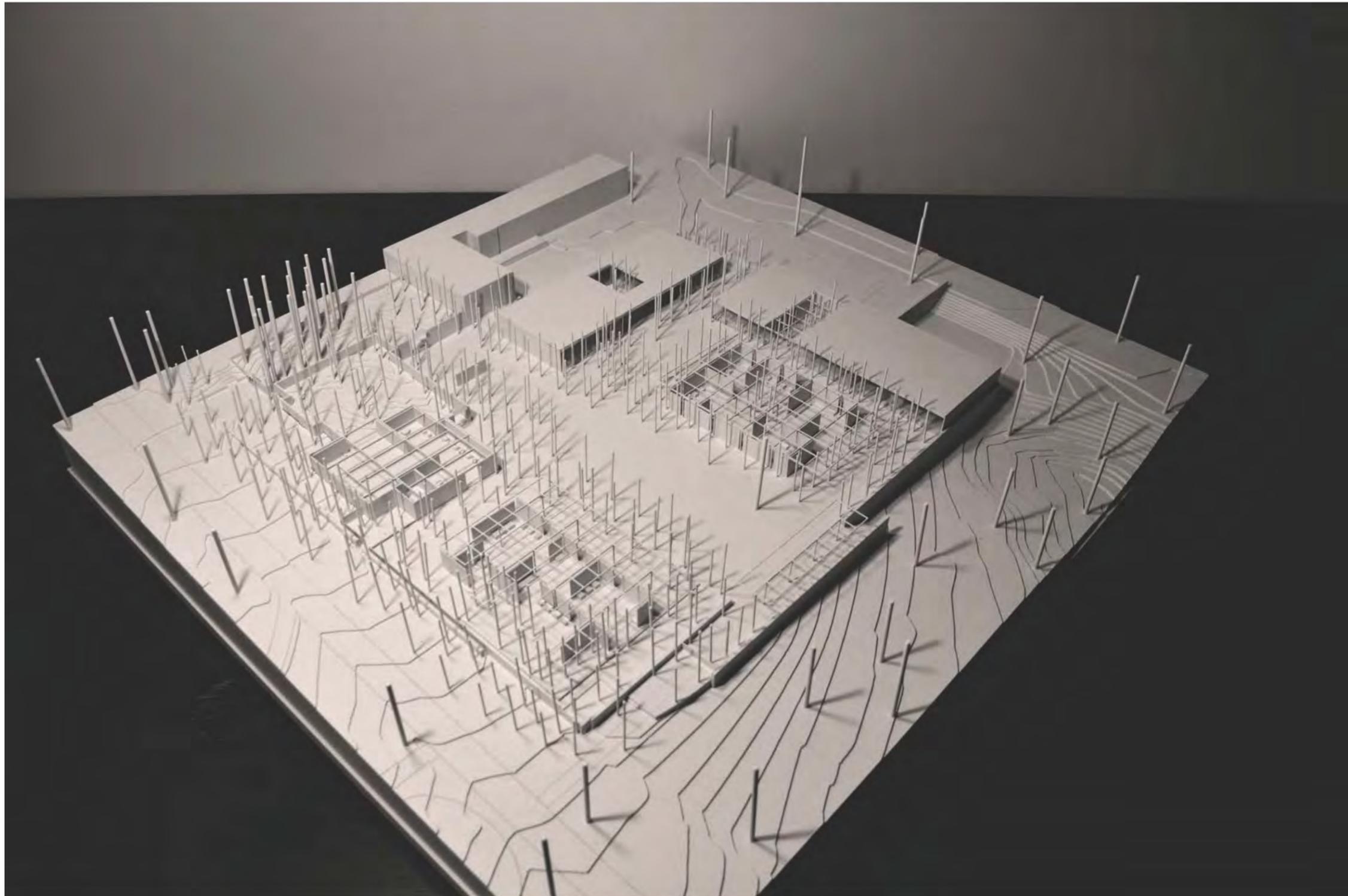
# MUSEUM COMPLEX

Physical Model Photography



# MUSEUM COMPLEX

Physical Model Photography



# MUSEUM COMPLEX

Physical Model Photography

