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National Zoological Park Accessible Walkway at Great Flight Aviary National Capital Planning Commission Preliminary Submission

OPDC Project # 2033125
QE Project # 42346300

JUNE 2025

Smithsonian Institution

QUINN EVANS

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Introduction

Project Name:

Provide Accessible Walkway at Great Flight Aviary

Location:

Smithsonian Institution
National Zoo and Conservation Biology Institute (NZCBI)
Rock Creek Campus, Washington, DC

Agency and Contact:

Smithsonian Institution
Office of Planning, Design, and Construction (OPDC)
Capital Gallery
600 Maryland Avenue SW Suite 5001
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Carly Bond, Associate Director, Architectural History and Historic Preservation

Diane Evans, Program Executive

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Project Location

Vicinity Map , Not To Scale

Context Map , Not To Scale

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Project Summary: Requirements and Goals

The primary project goal for this effort is to provide an accessible connection from the Bird House interior exhibits and the Great Flight Aviary (GFA) to the Bird House Plateau southern exhibit trail. Currently visitors exiting the Bird House from the mezzanine level or returning from the GFA do not have a clear accessible connection to the other exhibits on the Bird Plateau. The only way to enter and exit the GFA accessibly is through the Bird House which is not ideal. As one of the final projects to complete the transformation of the Bird Plateau, this project will graciously provide an accessible route connecting key viewing experiences.

Requirements of the project include:

- **Visitor Experience.** Provide visitor experiences that are both intuitive and support visitor choice of experience. Provide safe experiences along the length of the ramp that restricts climbing.
- **Accessibility.** Provide ADA accessible ramp from the GFA bridge, connecting the mezzanine of the Bird House and the Great Flight Aviary (GFA) to grade on the Bird House Plateau. This is an approximate 12-foot change in elevation.
- **Operations**. Retain vehicular circulation on the Bird House Plateau and develop a maintainable solution.
- **Animal Welfare**. Maintain protection (predator proofing) of exhibit/collections.
- **Context integration**. Minimize impact of ramp on historic fabric of the Great Flight Aviary bridge and Bird House.
- **Lighting**. Provide code compliant lighting along ramp for safe use by staff in all seasons (minimal footcandles, not decorative).

East approach to Southern Exhibit Trail

Boardwalk at Bird House North Entry

Front entry to Bird House

Crushed Stone walk at Bird House entry plaza

Great Flight Aviary bridge from southeast

Pergola and exhibit fencing east of Bird House

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Project Summary Continued

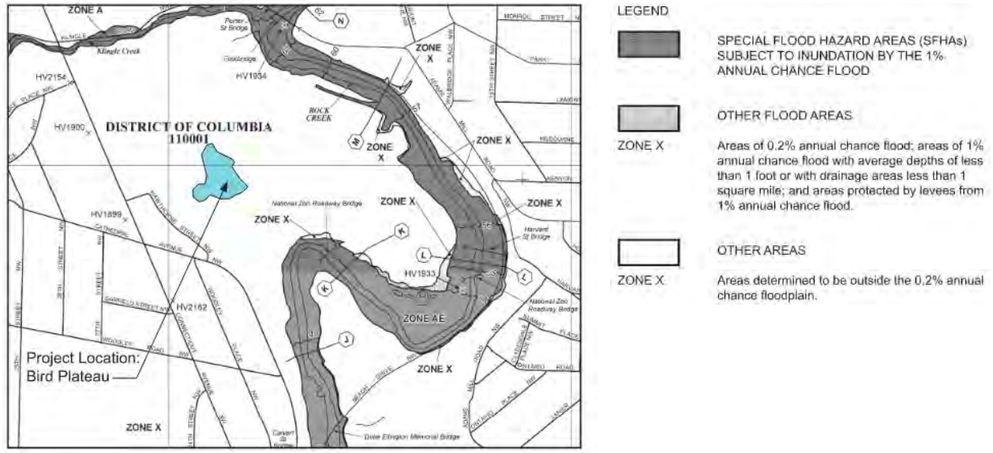
Project Cost Funding and Schedule
The project has an estimated construction cost of more than $4M. It will be constructed over fiscal years FY2029 and FY2030.

Environmental Documentation NEPA Compliance
The renovation of the Bird House and Great Flight Aviary were projected identified in the 2008 Master Plan. Environmental impacts were considered under an Environmental Assessment, completed with a Finding of No Significant Impact.

Historic Preservation Documentation
SI has applied the criteria of adverse effect to this project and proposed a finding of No Adverse Effect to the District of Columbia State Historic Preservation Officer.

Flood Plains Management and wetlands protection
No Impact on Floodplain or Wetlands

Per FEMA's District of Columbia's Flood Insurance Rate Map (FIRM) panel 1100010016C (effective 9/27/2010), the project area is within Zone X, an area of minimal flood hazard. The project does not impact a wetlands area. Refer to Appendix A for full FIRM panel 1100010016C.



Stormwater Management
This project will be considered a Major Land Disturbance per DOEE regulations as the development disturbs greater than 5,000 sf of land area.

As such the project will incorporate best management practices to achieve a Stormwater retention value appropriate for rainfall depth of 1.2 inches. Possible strategies for this site to incorporate include Bioretention and/or underground stormwater management.

Process and Approach

During the concept design phase, the AE team met with SI/NZCBI Stakeholders through three 1-1/2 hour virtual Workshops. Through these initial meetings, 15 initial form studies were presented. These 15 options were then narrowed to 6 then 4 for further study presented at subsequent workshops with SI/NZCBI.

From these workshops, NZCBI's primary feedback was a desire to have the ramp make the strongest direct connection to the exterior southern exhibit trail and to have minimal visual impact from the north approach to the Bird House from Asia Trail. The selected option from the concept design workshops is highlighted in red on this page. This option shows the new ramp starting at the southern exhibit trail behind the Bird House and curving north around the exhibit yards. It then straightens and heads toward the existing GFA bridge. It connects to the bridge on its southern edge, between the east façade of the Bird House and the first structural pier of the bridge.

SI/NZCBI and the AE team met then with staff members of the external agencies (Commission of Fine Arts, National Capitol Planning Commission, DC State Historic Preservation Office) to confirm that the preferred option was a logical and appropriate solution to move forward. As part of that presentation the team reviewed the 15 initial form studies and the preferred ramp forms, and provided rendered perspectives. Feedback from agency staff supported the ramp's clean, simple form; how the design paired nicely with the form of the existing GFA Bridge; and provided the desired physical and programmatic connection to the exterior southern exhibit trail.

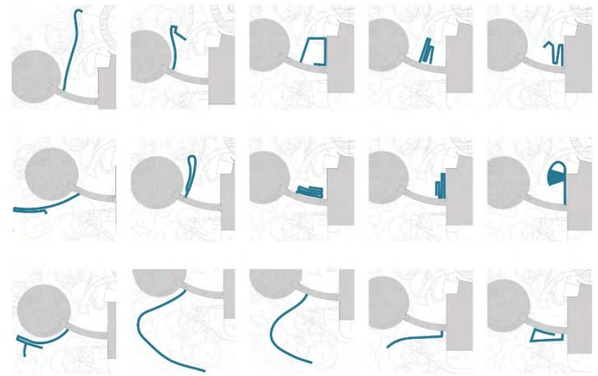
The comments received from the external agency staff consultation meetings were as follows:

Staff Meeting 1 (10.02.2023):

1. Matching material language to that north of Bird House is preferred
2. Study wayfinding opportunities with ramp and elements to lead visitors to ramp on the Bird Plateau.
3. Provide screening for back of house elements in adjacent utility yard
4. Refine definition of space under new ramp.

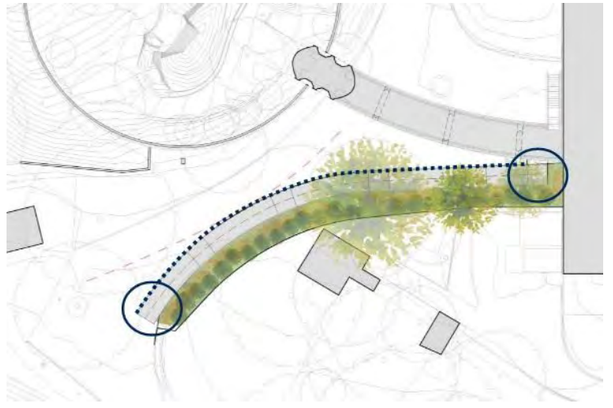
Staff Meeting 2 (12.04.2023):

1. Further study location of single column supports for elevated portions of new walkway
2. Confirm color and finish of the walkway's concrete elements
3. Refine attachment of guardrail panels to concrete slab of new walkway to reduce staining potential from the proposed corten steel
4. Further study size and location of intersection between new walkway and existing bridge.
5. Confirm needs for kickrails along planting areas



Initial form studies for walkway

Refined studies of preferred forms



Concept plan of preferred option from SI / NZCBI

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Bird Plateau History

The Bird House, designed by municipal architect Albert Harris, was originally completed in 1928. The architectural form of the building was a square, single story brick masonry structure with a flat roof, punctuated by skylights. At the building's center was a great flight room. This flight room had a red tile hipped roof with a large skylight at its peak. This was much taller than the surrounding exhibit spaces which allowed a series of clerestory windows to bring natural light into the tall central space. The building's brick masonry exterior was highlighted by a gabled entrance. On each side of the entrance was a one-story vestibule with shed roof sloping away from the main building.

Beginning in 1935, an addition was constructed on the south side of the building utilizing the same brick material strategy, style, and ornamentation as the original. This addition, completed by the Public Works Administration, was substantially completed by November 1936. The addition spanned the full width of the building and extended to the south by 43 feet.

The building underwent numerous renovations in the 1960's. Significant among them were the removal of the building's entry portico and hipped roof over the elevated central gallery in favor of modern replacements. Also occurring during the 1960's was the construction of the Great Flight Aviary. The form consisted of six parabolic steel arches that formed a circle roughly 130 feet in diameter with a central mast height of nearly 90 feet that was then covered by a vinyl coated steel wire mesh. A concrete bridge in the form of an arc supported by pyramidal piers spans the gap between the original Bird House and the Aviary.

In 2017, the Bird House and Bird Plateau underwent large scale renovation as part of the implementation of the "Experience Migration" exhibit. The renovations included an extension to the north façade for a new main entry clad in bird friendly glazing and metal panel in hues complementary to the historic brick structure. Other components of this renovation included updates to the north entry sequence from the Bird Plateau, replacement of the 1960's skylight with a pyramidal formed skylight, various bird friendly treatments to historic features, and introduction of handrails to the Great Flight Aviary bridge.

Main entry of 1928 Building (Photo Circa 1940)

Decorative panels at south façade Domenico Mortellito, 1936 (Photo 2014)

Stairs to Great Flight Aviary Bridge (Photo 2014)

Great Flight Aviary and Entrance Bridge (Photo 2014)

2017 North entry sequence renovation

2017 Resurfacing and handrail addition to Great flight Aviary Bridge

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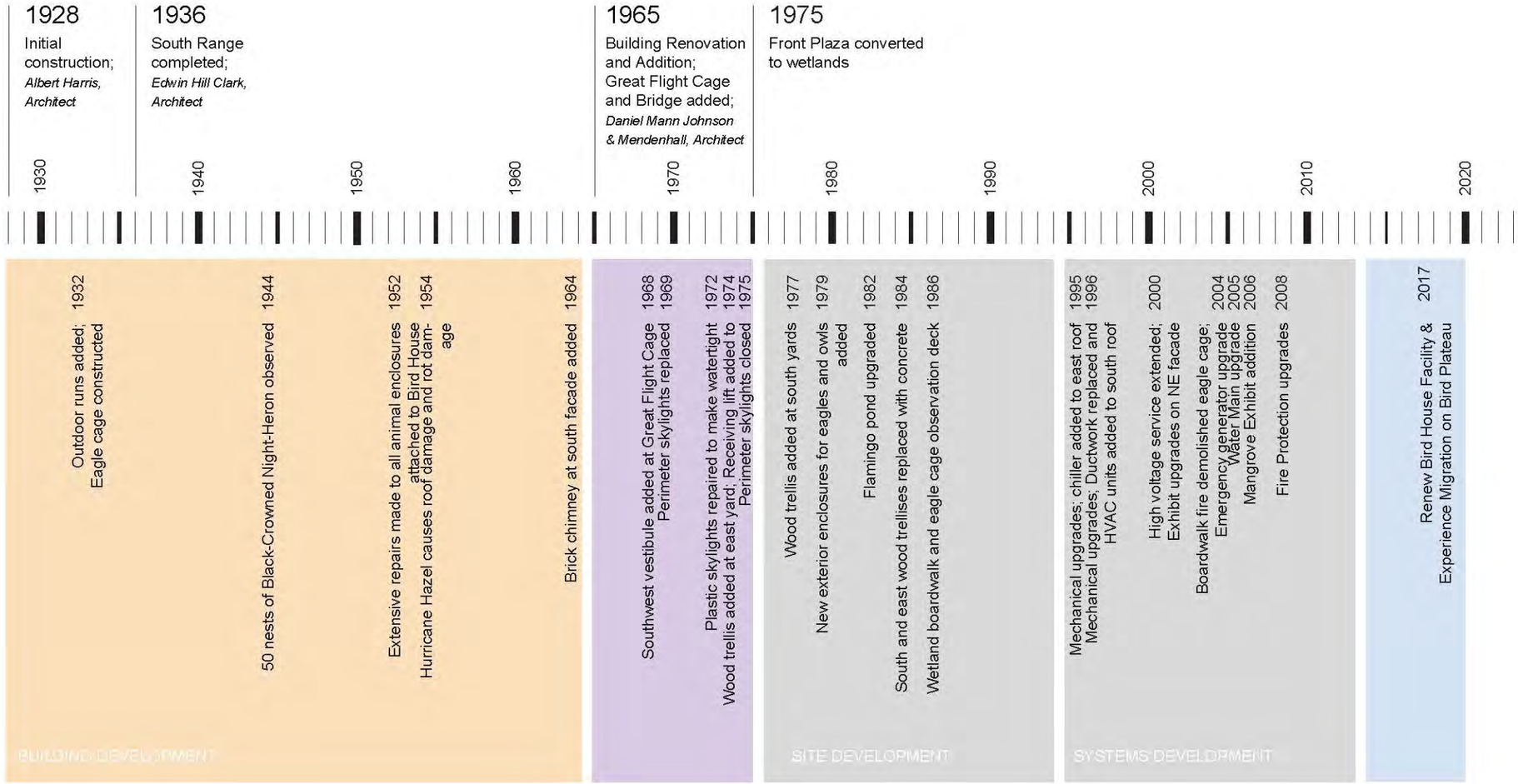
Bird Plateau History




Entrance, 1928 (photo circa 1940)


Decorative Panels at South Facade, Domenico Mortellito, 1936 (photo 2014)


Entrance Vestibule, 1965 (photo 2013)


Flight Room Skylight, 1965 (photo 2014)


Great Flight Cage, 1965 (photo 2013)


Wetland Exhibit, 1975 (photo 2013)


South Concrete Trellis, 1984 (photo 2010)

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Existing Visitor Experience Diagram

- Exhibit Viewing Locations
- Primary Public Path
- Secondary Trail
- Service Vehicle Path

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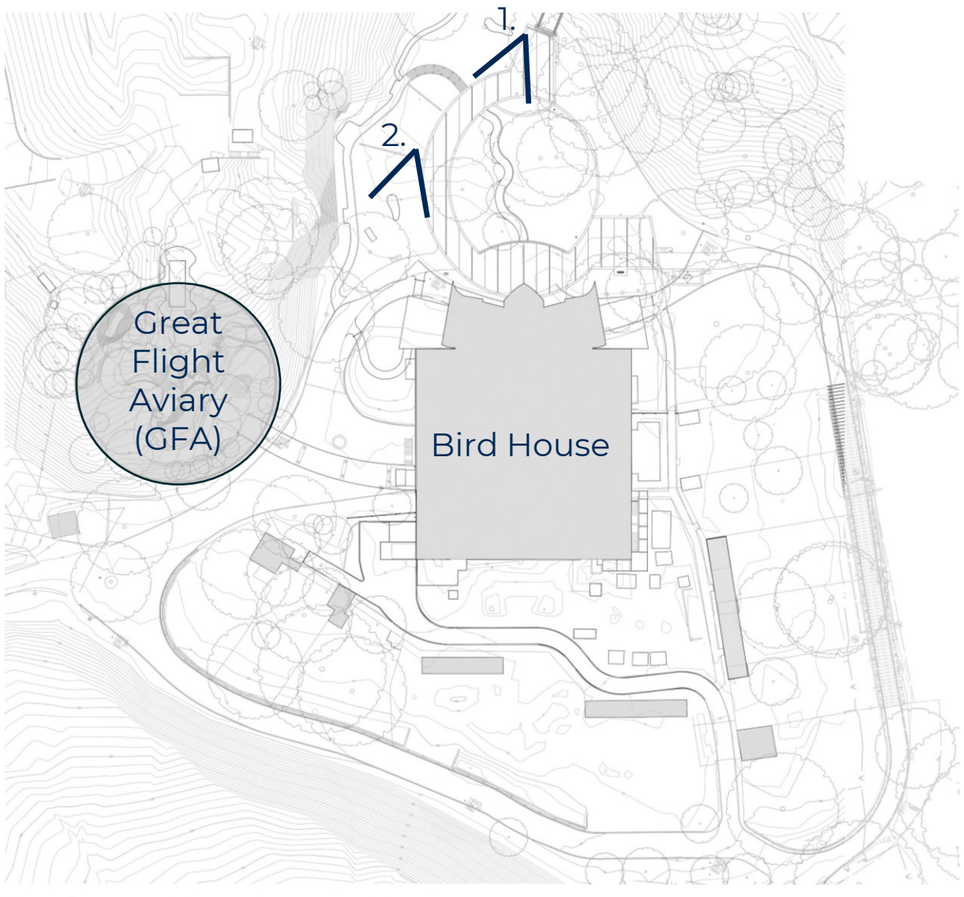
Site Context - Views From North

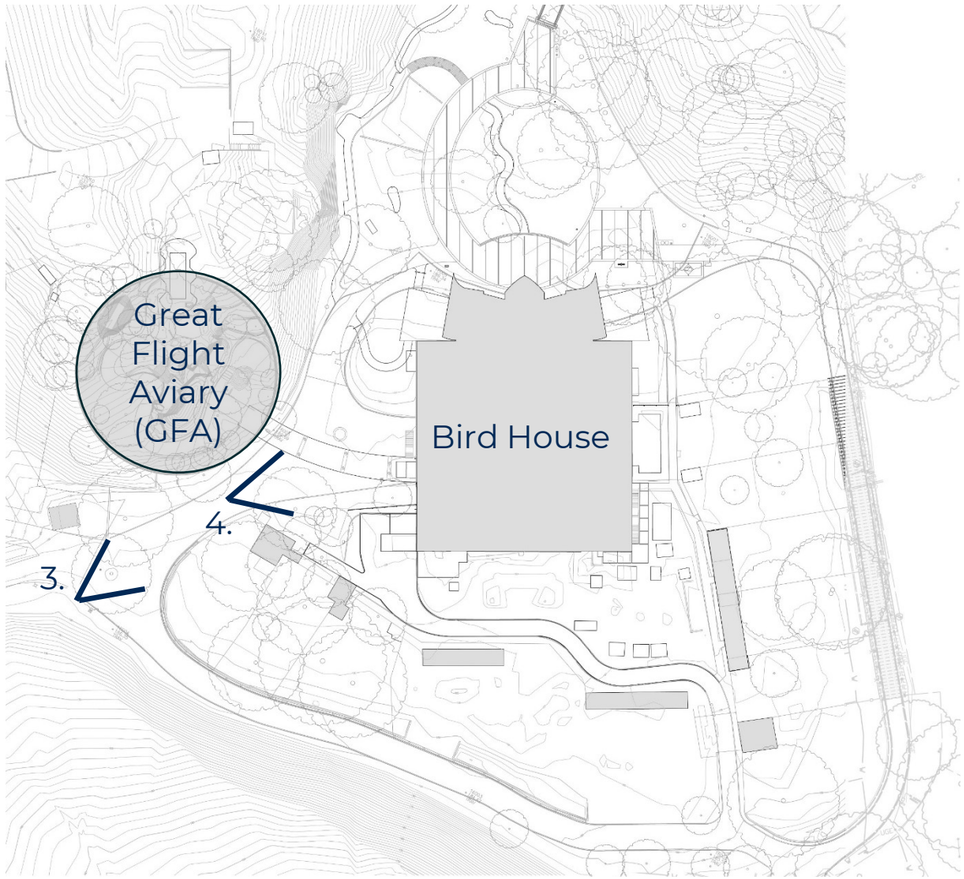


Bird Plateau: Views from the North

1.

2.

Site Context - Views From South

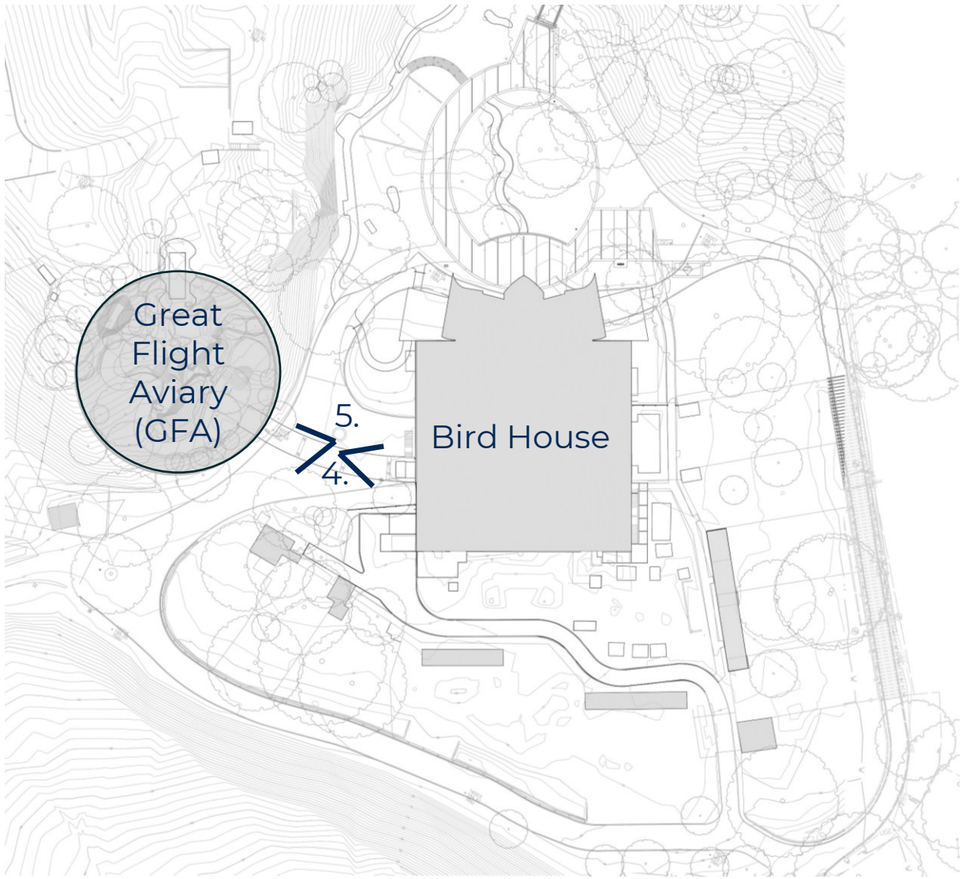


Bird Plateau: Views from the South

3.

4.

Site Context - Views From Bridge



Bird Plateau: Views from the Bridge

4.

5.

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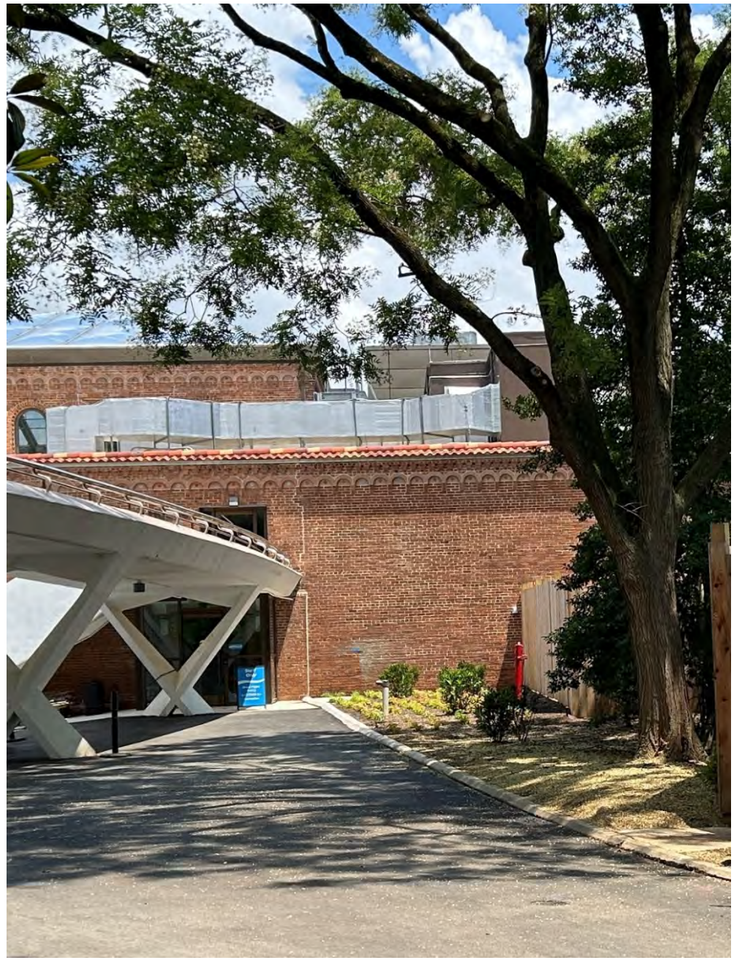
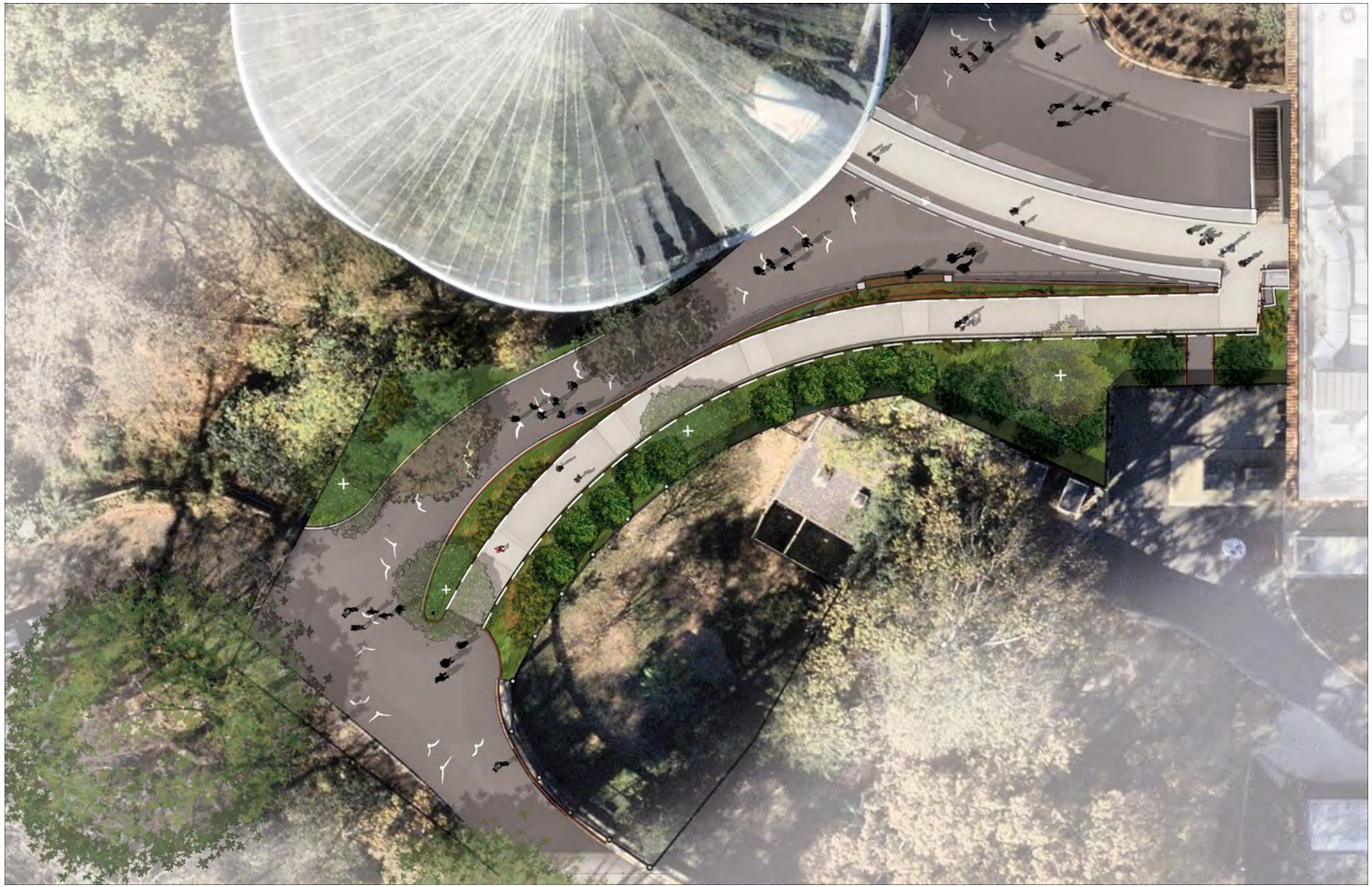
Proposed Design



Proposed Illustrative Site Plan



Proposed Visitor Experience Diagram

- Proposed Ramp
- Exhibit Viewing Locations
- Primary Public Path
- Secondary Trail
- Service Vehicle Path

The proposed ramp shown in teal encourages the visitor to circum-navigate the entire plateau to view the complete animal collection housed here.

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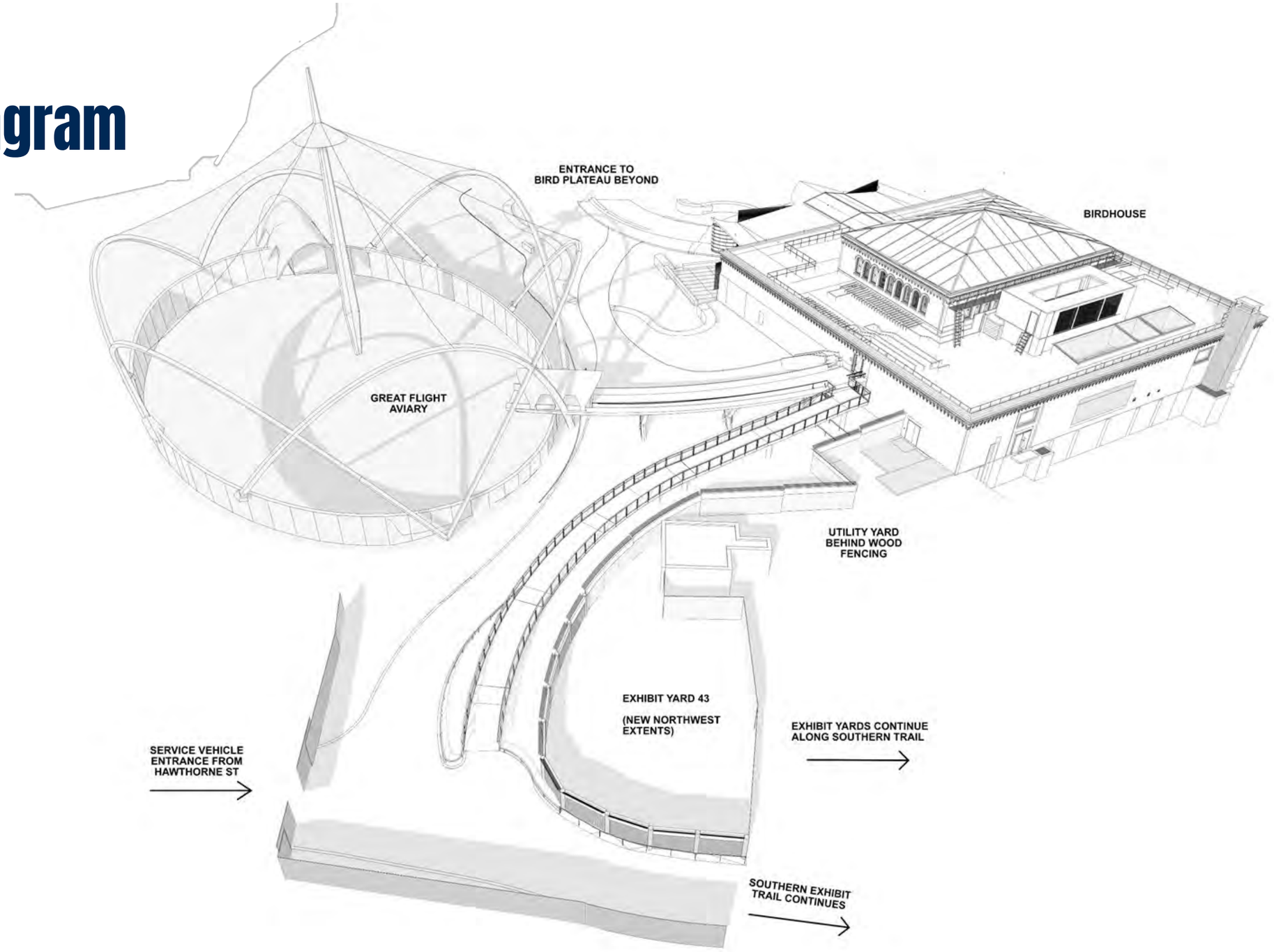
Birdseye Diagram



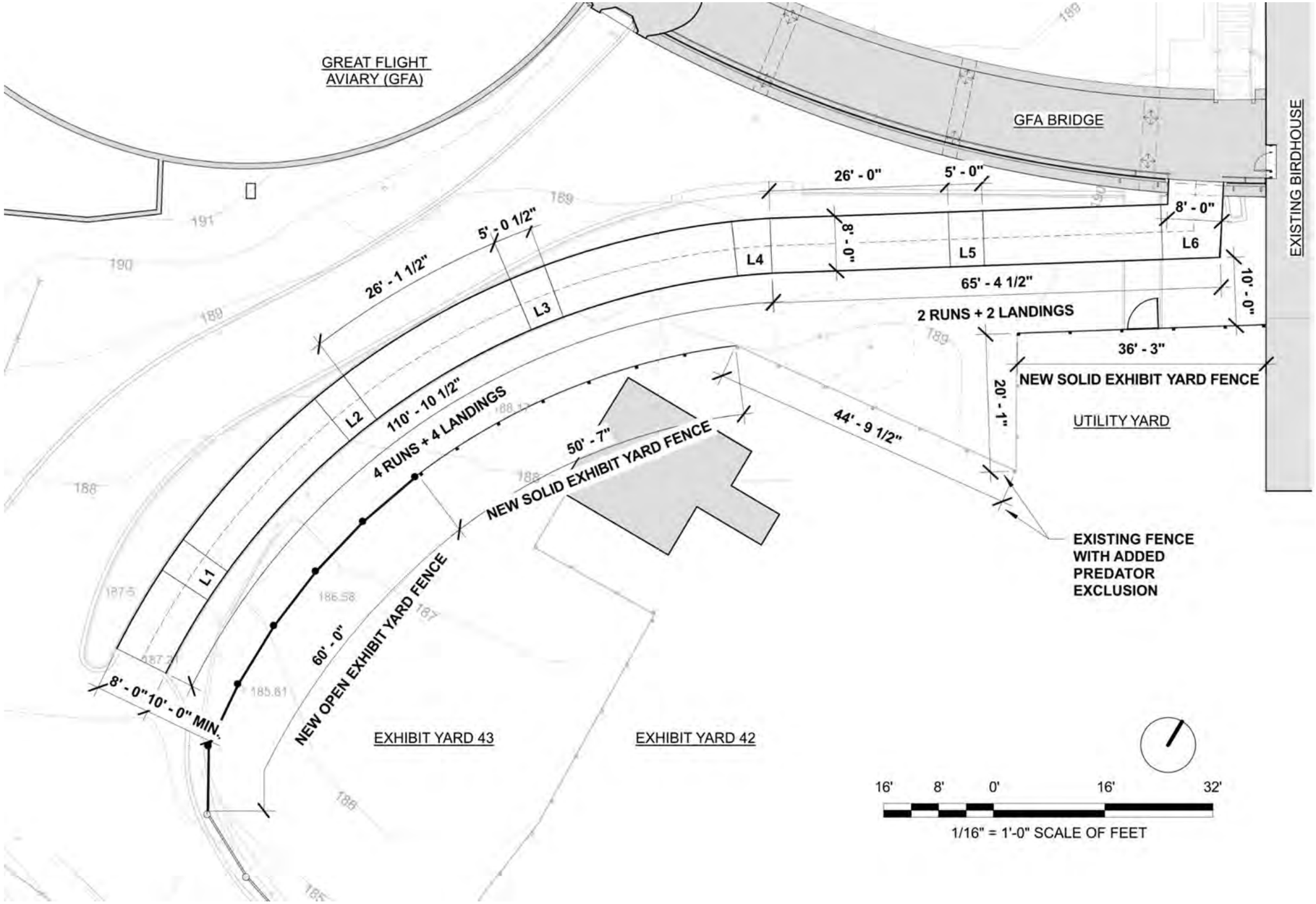
Proposed Architectural Plan

An 8’-0” wide ramp at 1:12 max slope with required landings. Six runs of ramp and 6 landings provide an accessible ramp to the GFA Bridge and Bird House mezzanine level.

A 10’-0” wide planting zone is proposed between the ramp and new fence to provide required predator exclusion separation.

This includes:

- 60’-0” of new exhibit yard fence at the bottom of the ramp with integrated visitor viewing (see “ new open exhibit yard fence” on the adjacent site plan).
- 86’- 10” of new solid exhibit yard fencing alongside ramp in two sections to maintain privacy in back of house spaces.
- Predator protection atop all fencing on the south side of ramp. Predator protection will consist of steel anti-climb panels and 5 strand hot wires mounted to top of fencing.



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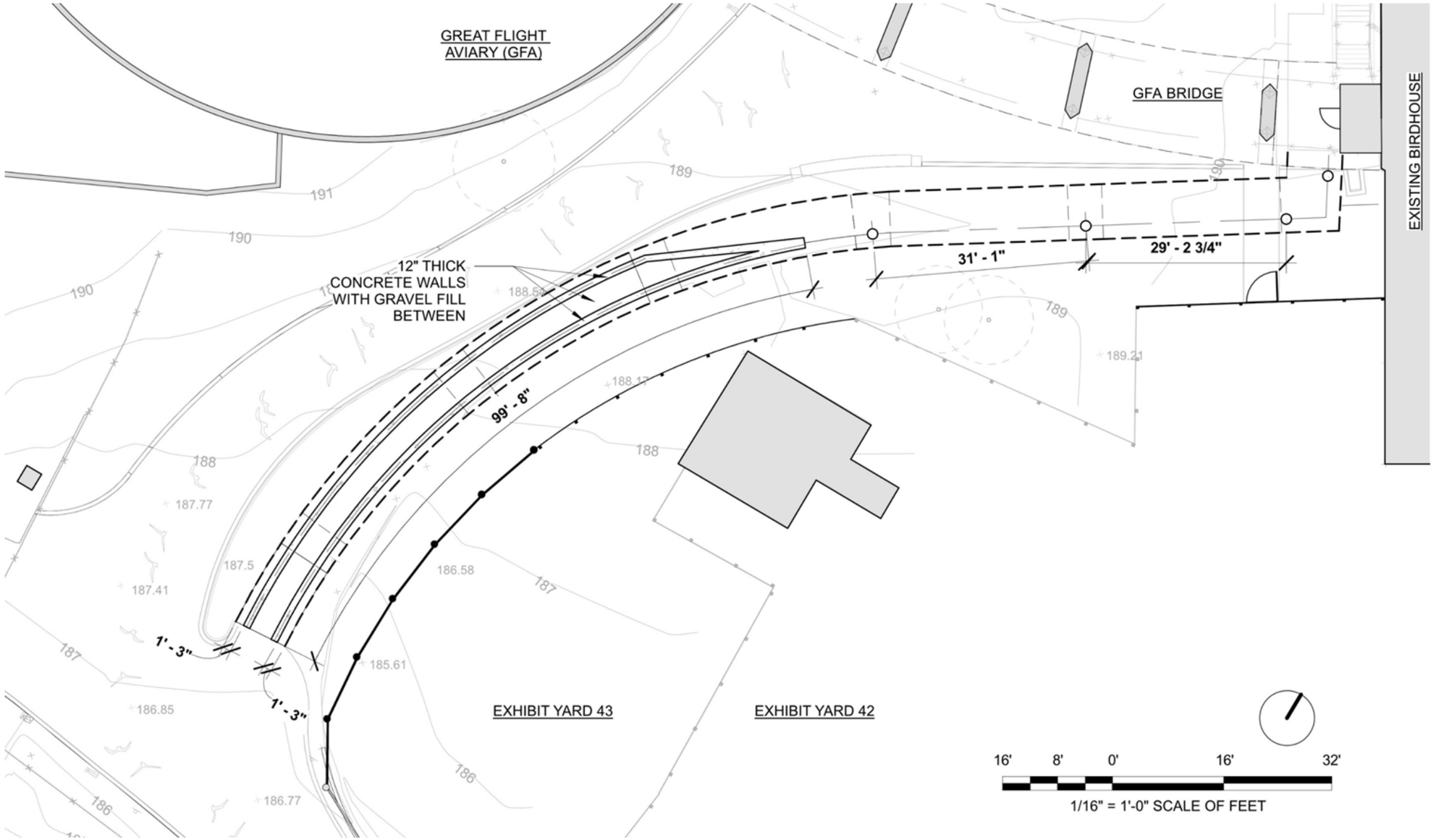
Proposed Column and Wall Plan



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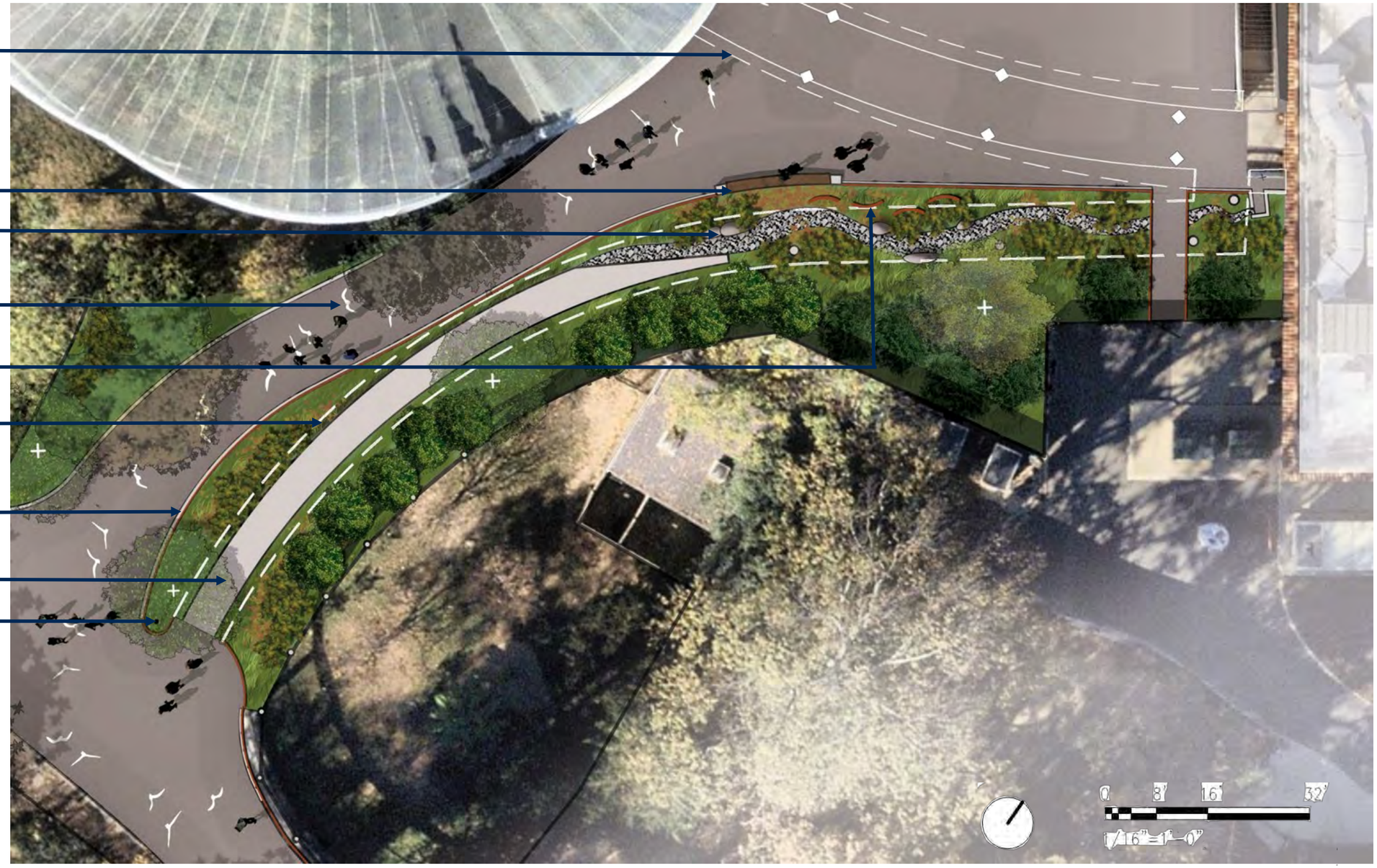
Rendered Landscape and Paving Plan



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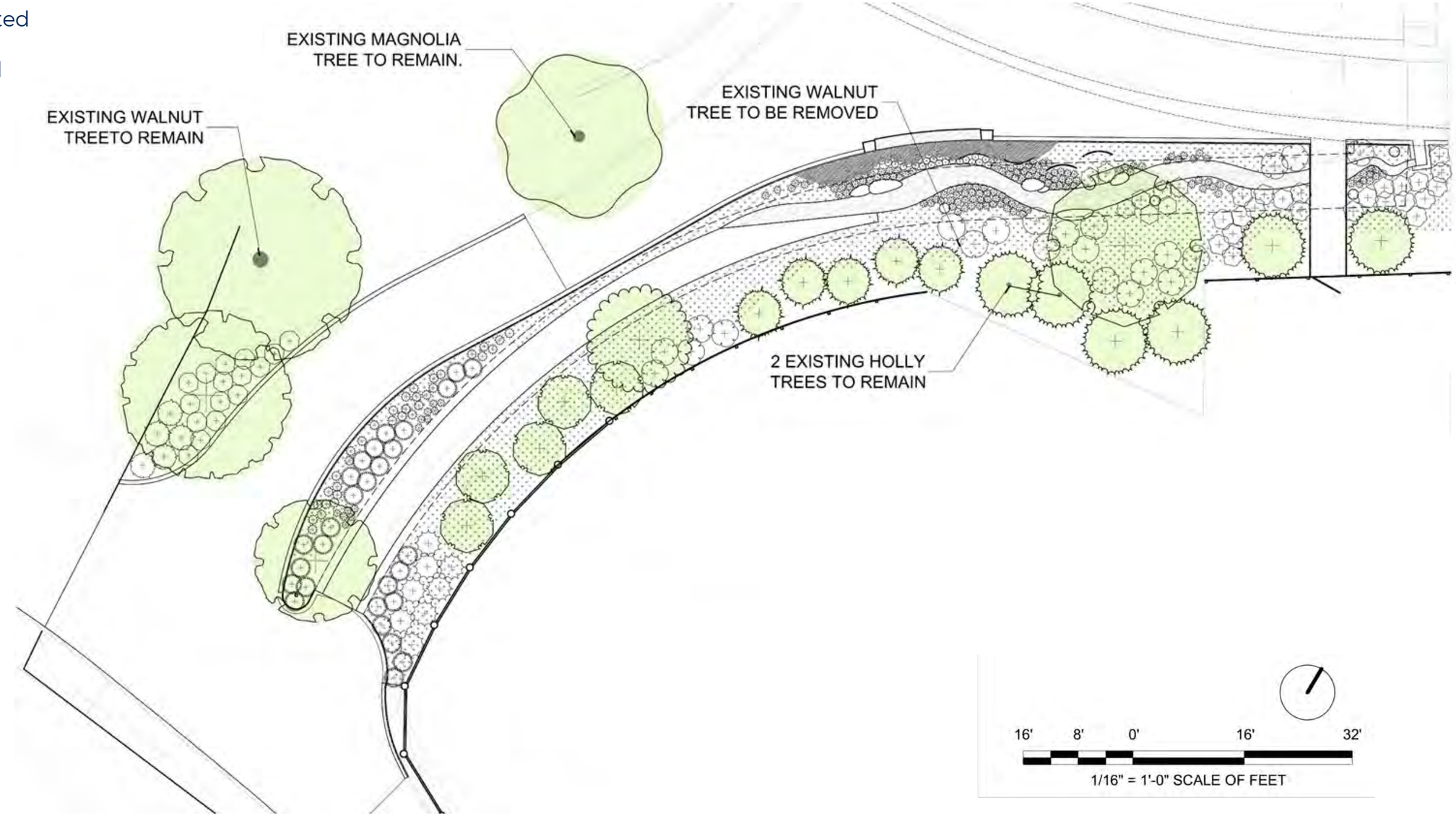
Tree Preservation Plan

- **1** Tree Removed
- **4** Trees Protected
- **18** Trees Added



Plant Schedule and Volume of Coverage

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME
TREES				
	AA	1	Amelanchier arborea	Downy Serviceberry
	CE	1	Cercis canadensis	Eastern Redbud Multi-trunk
	HV	5	Hamamelis virginiana	Common Witch Hazel
	IA	4	Ilex opaca	American Holly
	JE	5	Juniperus virginiana	Eastern Redcedar
	MS	1	Magnolia virginiana	Sweetbay Magnolia
	NS	1	Nyssa sylvatica	Tupelo

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME
SHRUBS				
	CA	8	Clethra alnifolia	Summersweet
	CI	5	Cornus sericea 'Isanti'	Isanti Red Twig Dogwood
	DI	147	Dryopteris intermedia	Intermediate Wood Fern
	EP	33	Echinacea purpurea	Coneflower
	HC	40	Heuchera americana	American Alumroot
	HQ	8	Hydrangea quercifolia	Oakleaf Hydrangea
	IG	23	Ilex glabra	Inkberry Holly
	IW	8	Ilex verticillata	Winterberry
	PV	28	Panicum virgatum	Switch Grass
	RG	16	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac
	VA	14	Viburnum trilobum	American Cranberrybush
GROUND COVERS				
	CP	540 sf	Carex pensylvanica	Pennsylvania Sedge
	EL	97 sf	Epimedium grandiflorum 'Lilafee'	Longspur Barrenwort

Planting Palette - Trees

The planting palette will be composed of native plants that thrive in shady locations and match plants already present on the Bird Plateau. The plants have multiple seasons of interest and include pollinators

Magnolia virginiana

Juniperus virginiana

Hamamelis virginiana

Nyssa sylvatica

Cercis candensis

Amelanchier arborea

Ilex Opaca

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Planting Palette - Shrubs

Rhus aromatica 'Gro-Low'

Ilex verticillata

clethra alnifolia

hydrangea quercifolia

Panicum virgatum ‘Shenandoah’

Echinacea purpurea

Viburnum trilobum

Heuchera americana

Cornus sericea 'Isanti'

Ilex glabra

Dryopteris intermedia

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Precedents and References - Ramp Form

During concept design, the SI/NZCBI and the design team evaluated a collection of options for the walkway structural frame, considering precedents from the Bird Plateau. Examples of these precedents are shown at right. Based on this evaluation and feedback from the staff of the external agencies, there is preference for the new walkway form to be a single material, have a simple form, and not compete with or mimic too closely the historic GFA Bridge. Railings should be in the language of the most recent Bird House modifications complete in 2023, using that material palette and forms for inspiration

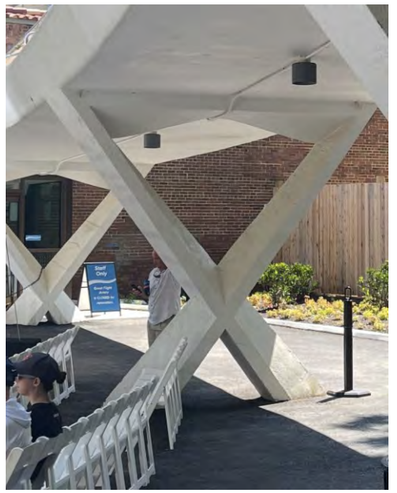
<u>Precedents from Bird Plateau:</u>

-Concrete pergola supports lining exhibit trail south of Bird House

-Existing geometric forms of GFA Bridge slab and supports, and the GFA

-Form, materials, and supports of Boardwalk northeast of Bird House

Pergola



GFA Bridge upturned beam (Above). GFA Bridge supports (Below).

Boardwalk

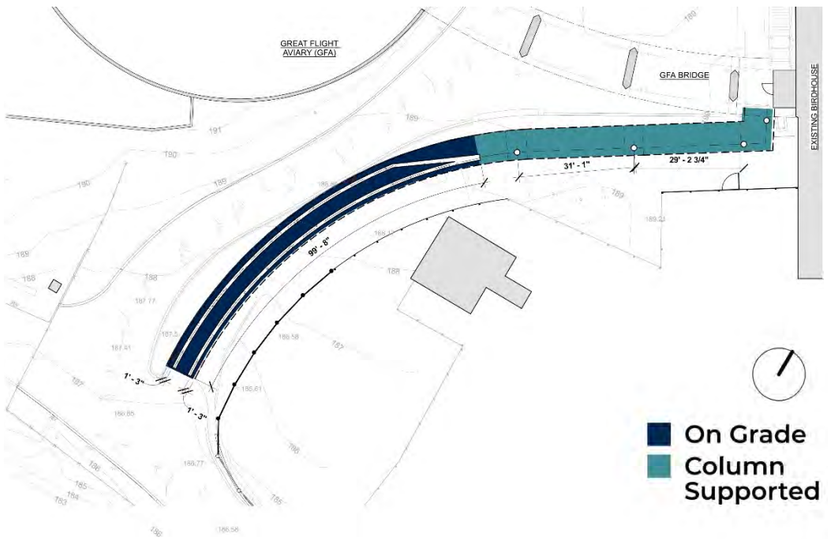
Typical Ramp Massing Diagram

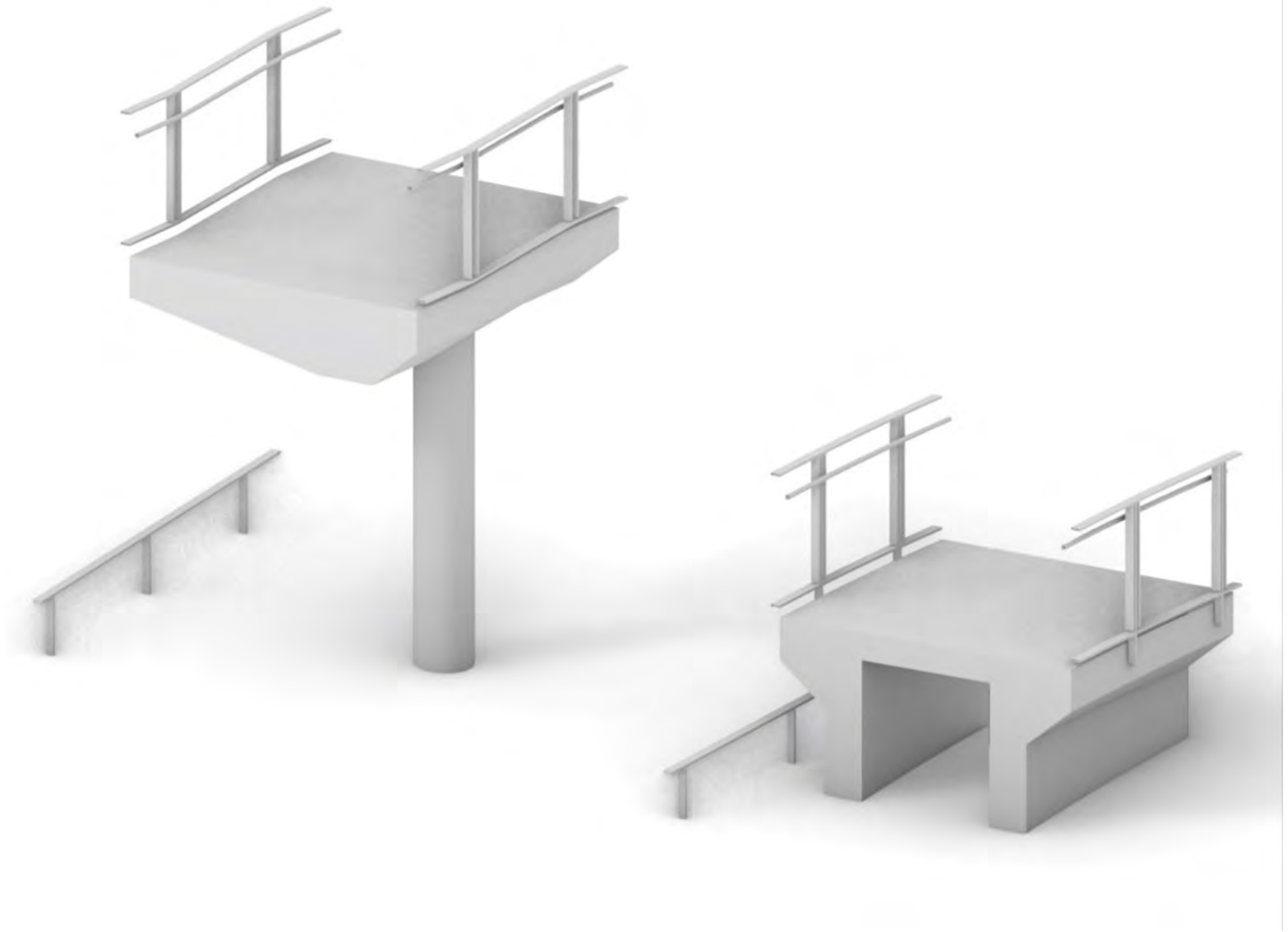
The new ramp features two massing configurations. One supported by foundation walls, and one supported by columns.

The on-grade portion is supported by foundation walls utilizing a slab on grade with a 1’ - 0” deep slab edge on either side that thickens to 2’ - 0” deep as it moves inward towards concrete walls that support the slab down to a shallow foundation beneath grade.

The column supported portion of the ramp utilizes a slab with a 1’ – 0” deep slab edge at either side that thickens to 2’ – 0” deep for a width of 1’ – 6” to conceal the beam that is the primary support of the structure.

This beam is supported by 1’ – 6” diameter columns with centerlines 2’ – 0” off the slab edge closer to the exhibits to keep the structure further from visitors on the adjacent path and allow for greater space under the ramp for plant material.





Column Supported Portion

On Grade Ramp Portion

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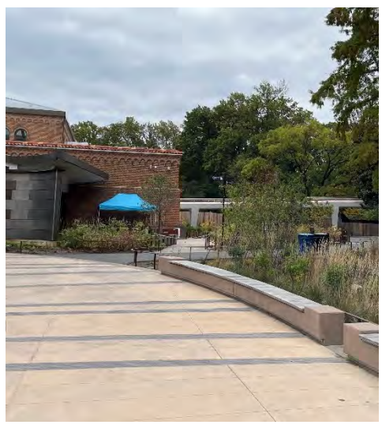
Precedents and Details - Ramp Materials

As part of the effort to integrate the new walkway within its current surroundings on the Bird Plateau, the material language of both concrete surfaces and the railings reference precedents from the plateau.

The guardrail panels feature weathering steel frames with a wire mesh infill matching the material strategy utilized to line multiple paths on the plateau.

The concrete surfaces are tinted to match the coloration of pavers found at the entry plaza of the Bird House. The slab and supports are the same color for uniformity. But the concrete coloration will intentionally not match the painted concrete of the GFA bridge to reinforce that this walkway is a new addition to the historic structure.

The handrails mounted to the guardrail stanchions are aluminum rails with integrated downward facing light fixtures to match the language used in the interior of the Bird House.



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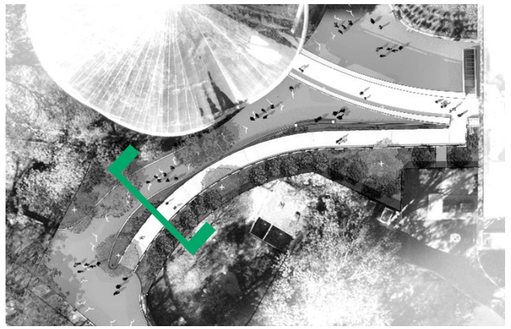
Proposed Ramp Cross Sections

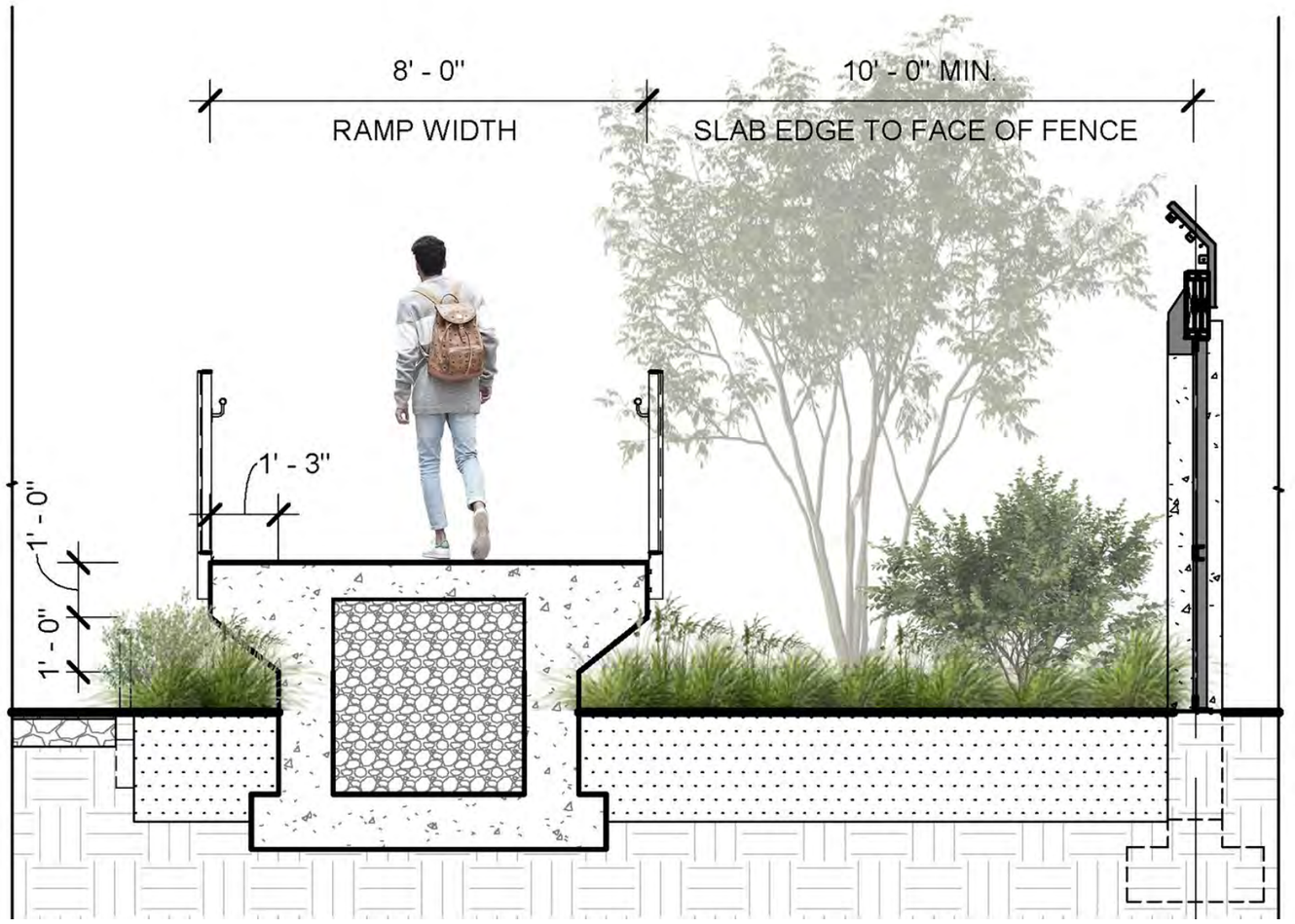


The first 100’ of ramp extending from the southern exhibit trail utilize the on grade ramp form strategy described in the typical massing diagram.

To the northwest of the ramp along these portions of ramp there are shallow planting beds protected by a kickrail and the path of travel for service vehicles to access the Bird House.

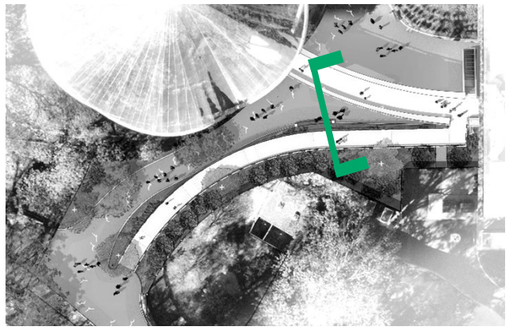
To the southeast of the ramp new exhibit fence is installed to look into yard 43 for approximately 50’. Then there is 50’ of solid exhibit yard fencing as the ramp reaches the rear of exhibit yard 43.

Both fencing conditions are positioned 10’-0” minimum from the slab edge of the ramp and have been given predator proofing measures as described on page 33. Both fencing conditions feature native plantings in this 10’ predator protection gap to better embed the new walkway into the Bird Plateau landscape.



Cross section at portions of ramp supported by Foundation walls adjacent to Yard 43.

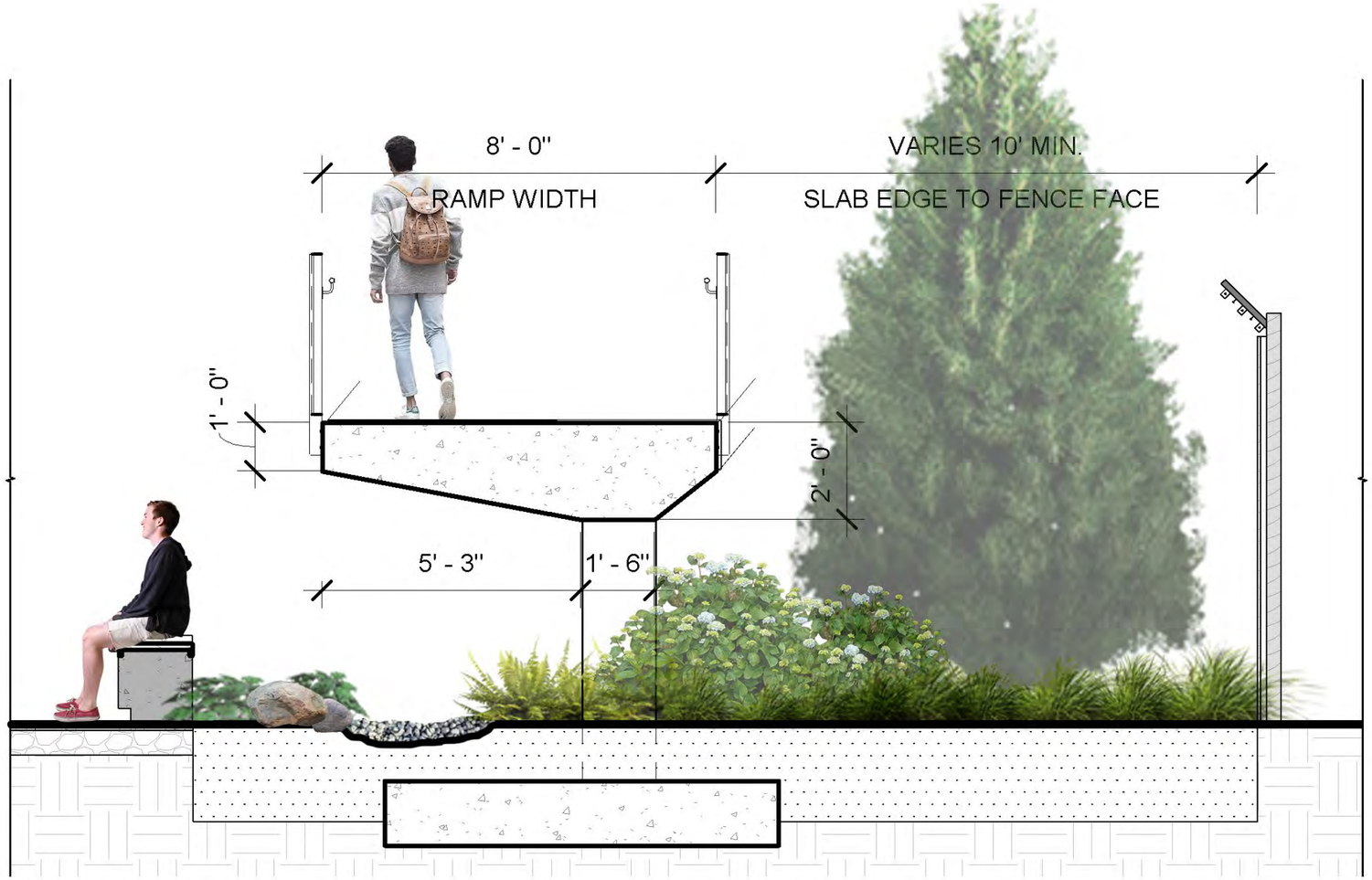
Proposed Ramp Cross Sections



By the 4th landing, the ramp will reach a height where planting can be placed underneath the ramp slab. The ramp form shifts in this portion to the column supported strategy so that continuous planting underneath the ramp slab can be accommodated.

To the northwest of the ramp there is a bench that curves alongside the ramp for around 25’ to act as the northern boundary of planting. This then transitions to the kickrail protected planting strategy as the ramp extends closer to the Bird House.

The 10’ minimum offset from the new ramp slab edge to any fence face to the south is maintained throughout this portion of ramp as well as the addition of predator proofing elements at the top of any exhibit fencing along the ramp.

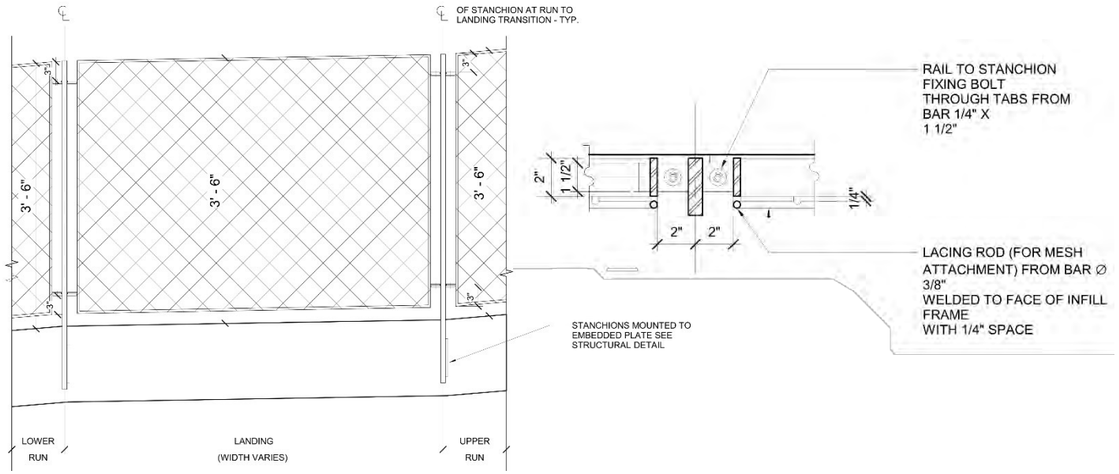


Cross section at portions of ramp supported by columns adjacent to utility yard.

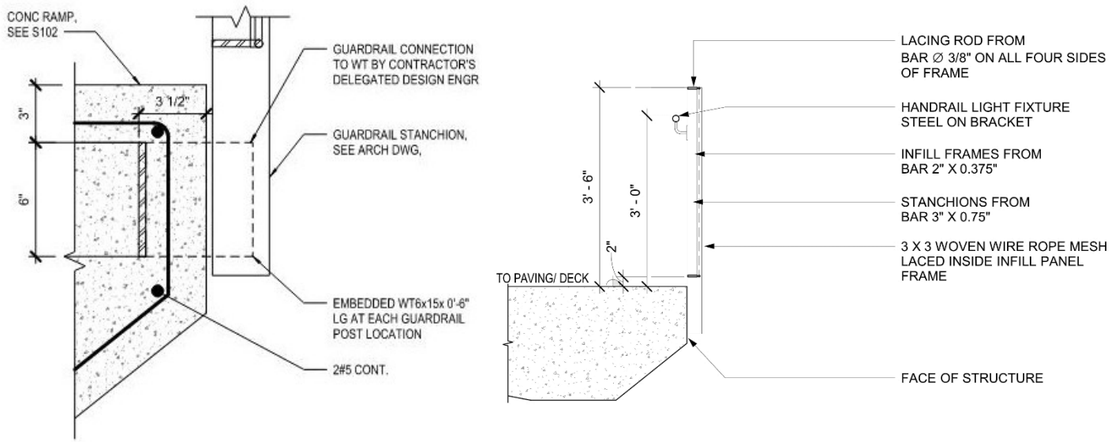
Guardrail and Handrail Precedents and Details

Example of face mounted weathering steel guardrail on Bird Plateau

Example of bracket mounted handrail light fixture from Bird House interior



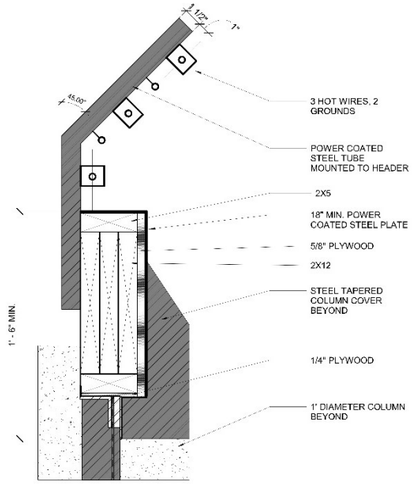
Typical guardrail relationship to ramp face (Plan and Elevation)



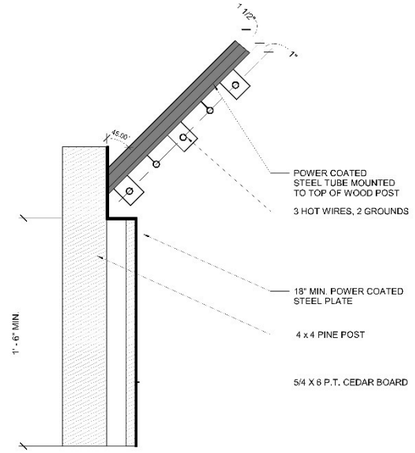
Typical mounting details for guardrail stanchions and handrails

Exhibit Fence Precedents and Details

Exhibit fencing to match language currently installed at Bird Plateau Southern Exhibit Trail with added predator proofing.



Predator Exclusion at Open Exhibit Yard Fencing



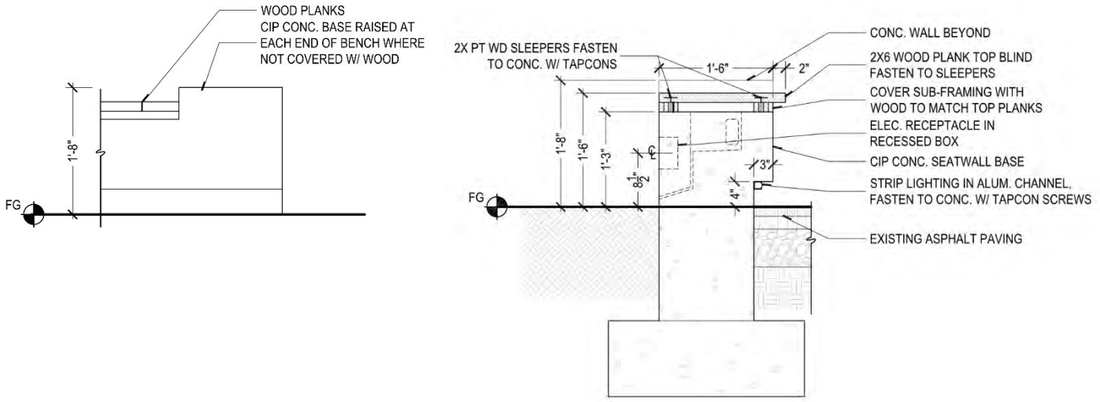
Predator Exclusion at Solid Exhibit Yard Fencing

Predator proofing design components:

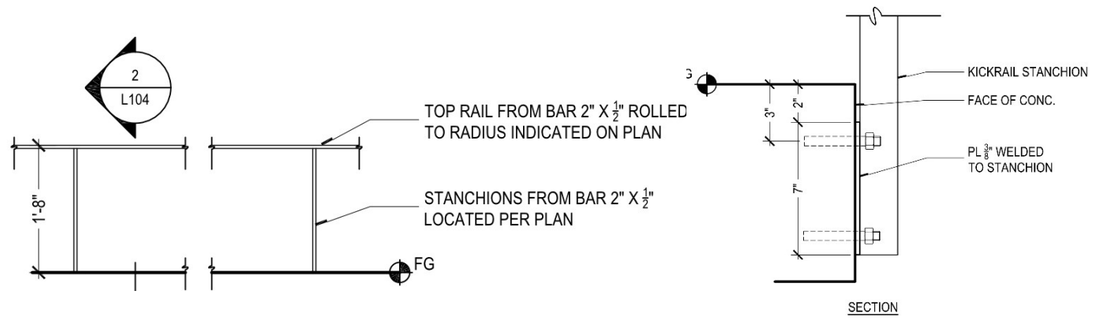
- 5 Strand Hot Wire
- 1 - 6” Anti Climb Panel
- 2’- 0” Dig Barrier
- 8’ - 0” Vertical Cedar Plank Fence (Solid) or Metal Frame with Mesh Infill Panel between Concrete Columns (Open)

Paving, Kickrail, and Bench Precedents and Details

Dark grey linear pavers, stained concrete paving and bench, and kickrails to match language found in north plaza of Bird House



Elevation and section of bench



Elevation and section of weathering steel kickrails

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Perspective View from North Approach of Bird House

The profile of the new walkway sits in the background of key elements framing the north approach to the Bird House.

The walkway is visible but recedes between supports of the existing Great Flight Aviary Bridge until ultimately being mostly blocked by the Bird House building on one end and the hill of the Great Flight Aviary on the other.

The walkway is sited behind the GFA Bridge to maintain the composition of the Bird House, Bridge, and Great Flight Aviary when viewed from the primary entrance to the plateau.

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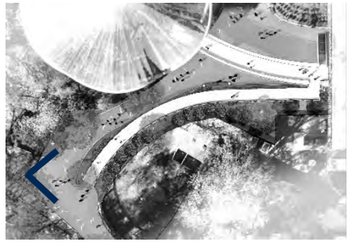
Perspective View from East Approach of Bird House



The walkway entrance from the exhibit trail is framed with light planting on either side protected by kickrails with Yard 43 visible beyond.

Pavers matching materials found in the north plaza act as a final landing. Bird silhouettes on the adjacent asphalt act as a playful element to bring visitors around the western portion of the exhibit trail.

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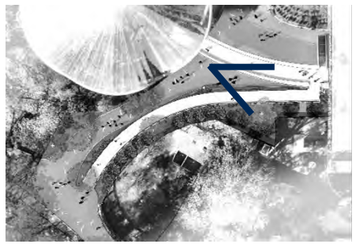
Perspective View Looking at Convergence of Ramp and Bridge



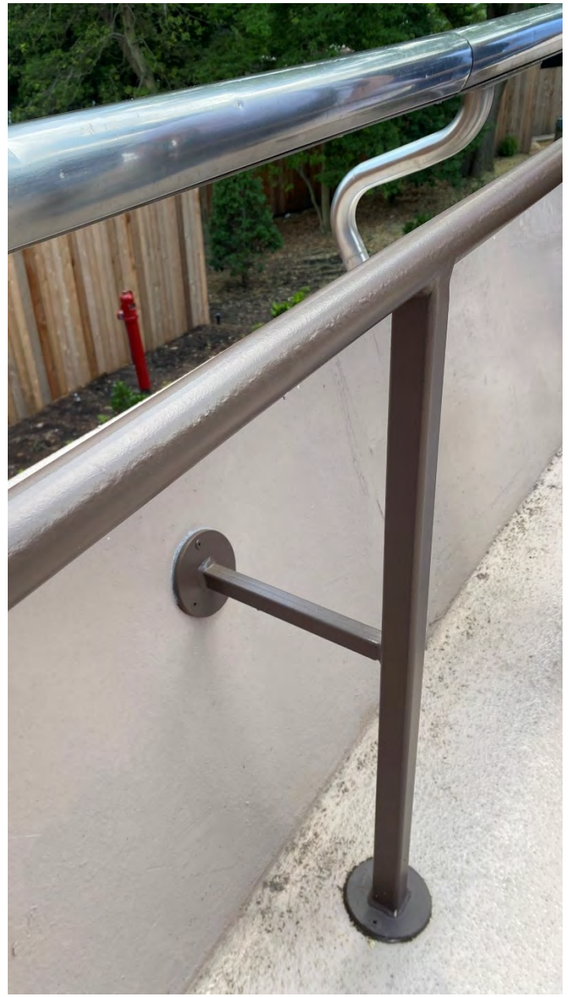
The upper portion of the proposed walkway supported by concrete columns traverses over a new planted area of rocks, shrubs, and flowers. A curving bench and bird sculpture offer a moment of pause and intrigue below the walkway.

Then to intersect the GFA Bridge, the walkway turns a corner towards the bridge and tucks a ledge underneath it for support.

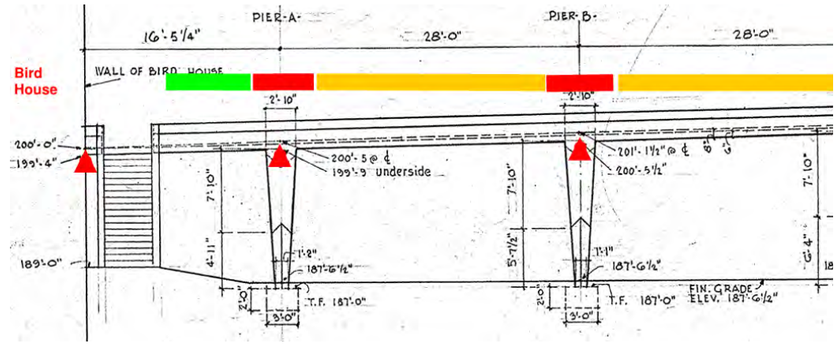
Existing Conditions and Demolition at GFA Bridge

View from GFA Bridge looking at intersection location with new walkway

View from ground looking at intersection location of new walkway and existing GFA bridge



View of existing guardrail and handrail relationships to upturned beam of GFA Ramp

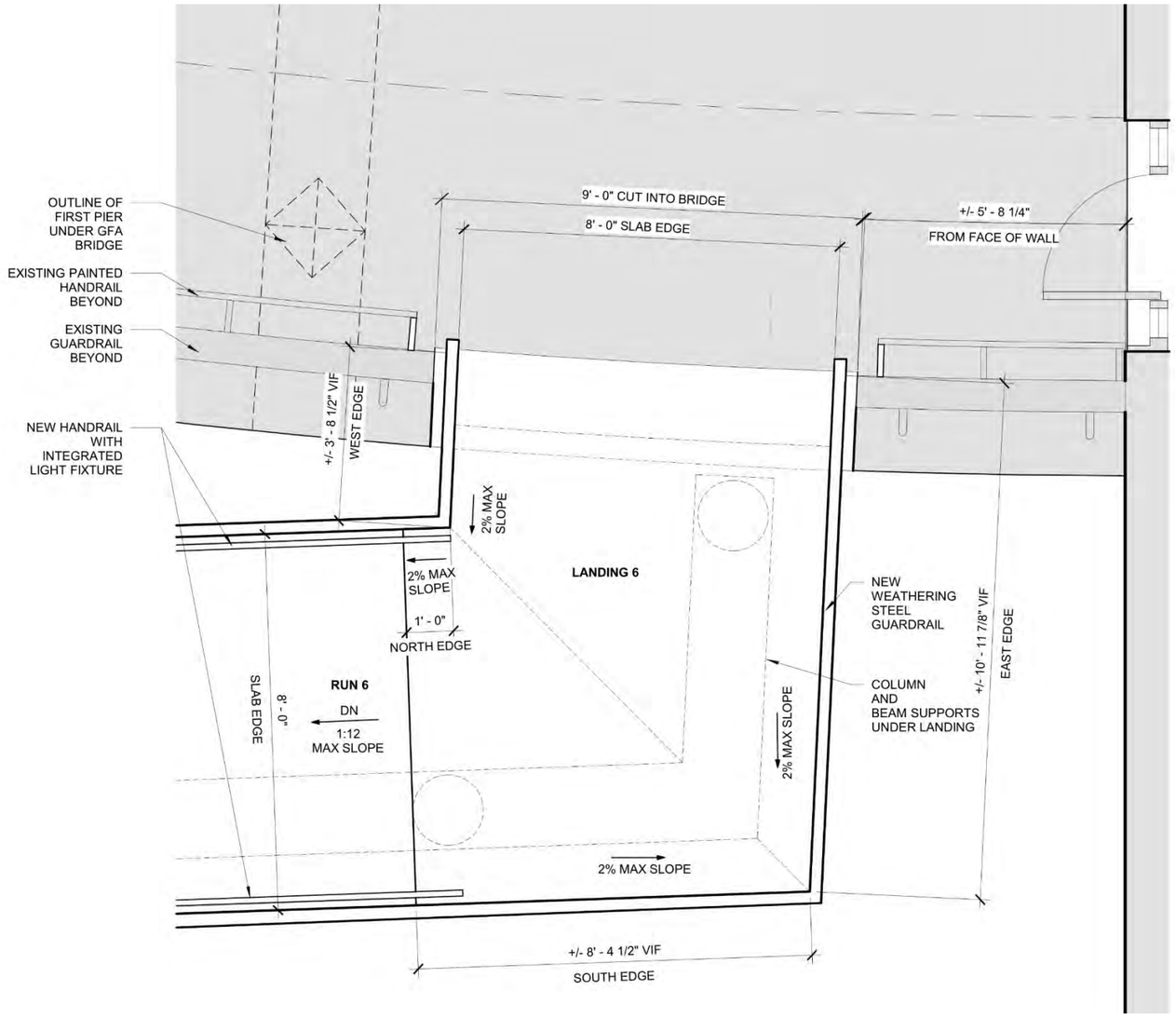


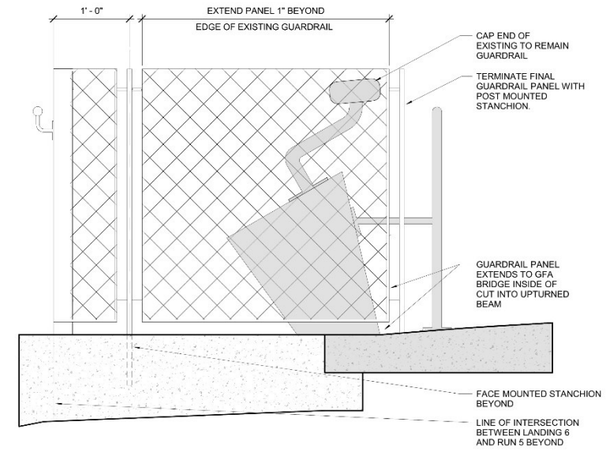
- Minor Strengthening Required
- Moderate Strengthening Required
- Extensive Strengthening Required
- Critical No Cut Zone

As part of the concept phase, it was determined that the best location to cut into the existing GFA bridge to minimize structural strengthening was the east side before the first structural pier of the bridge moving towards the Great Flight Aviary.

This intersection location has been further refined through conversations with the AE team and SI/NZCBI to further consider the relationship between the new walkway and the existing entry vestibule under the GFA bridge at this location as well as the existing rails atop the GFA bridge.

Proposed Intersection with GFA Bridge





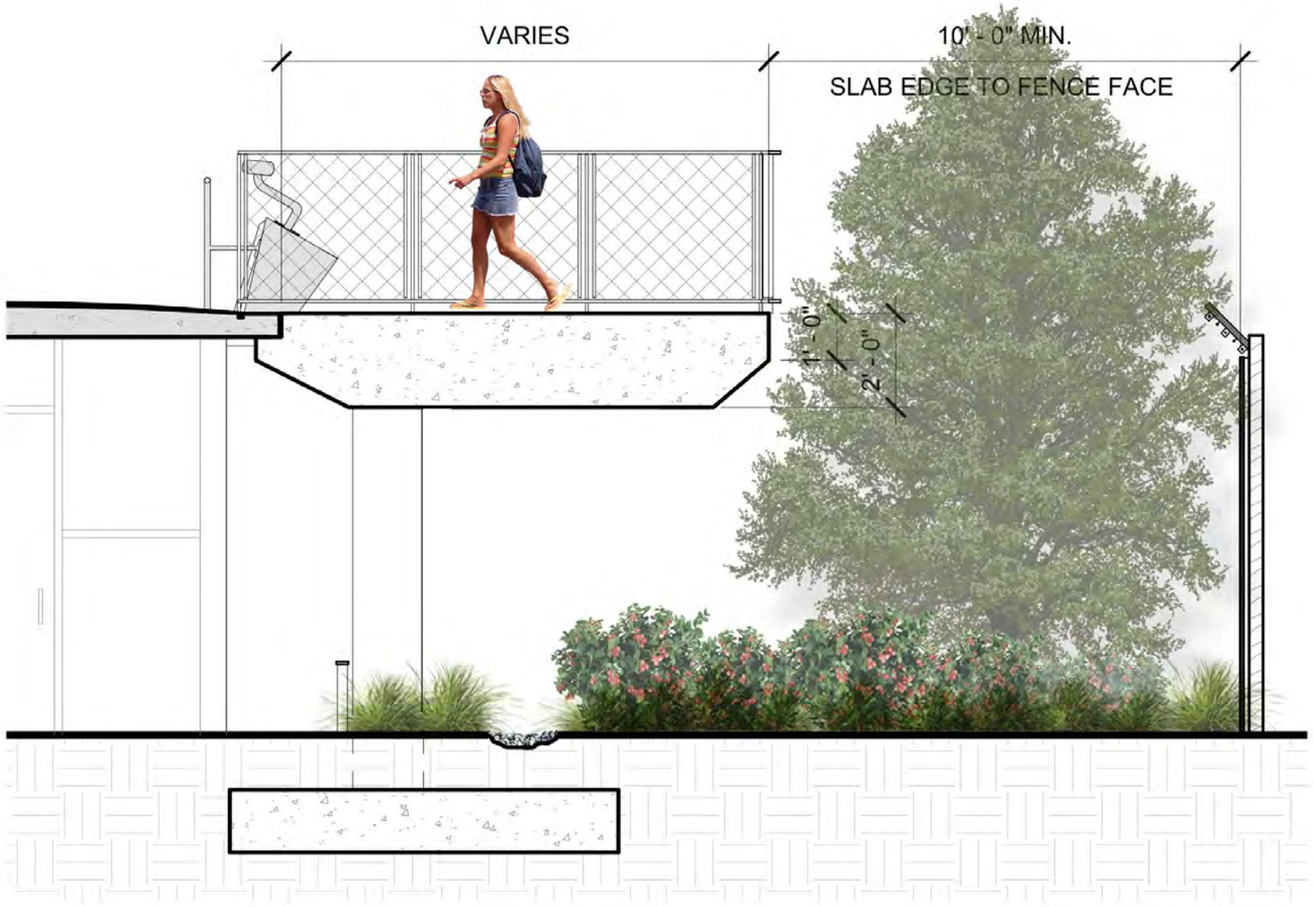
Fall Protection Continuity Detail at Intersection

The new ramp's intersection with the existing bridge is located 5' – 8" west of the Bird House west façade.

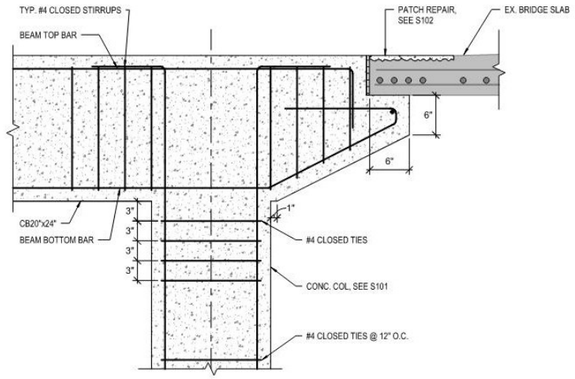
This was done to position the cut into the existing GFA bridge to minimize the amount of demolition required to the existing guardrails of the GFA Bridge as well as to lessen the potential impact of the existing entry vestibule on the ground level of the Bird House.

There is a 9' section of the upturned bridge beam to be removed and an 8' wide section of the slab to be removed at the top landing. This will allow the new walkway to connect to the existing bridge structure. The guardrail panels of the new ramp can pass onto the existing bridge on the inside of the cut face and minimize the interaction of the two rail systems.

Proposed Section at GFA Bridge Intersection



North / South Cross section at top landing of new ramp at Intersection with existing GFA Bridge



Structural detail showing new ramp supporting cantilevered portion of GFA slab

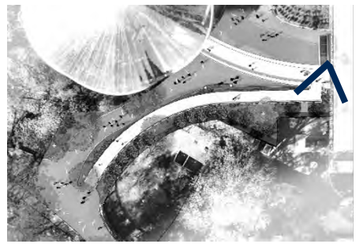
The removal of a section of the existing GFA Bridge's upturned beam will create a cantilever in the existing bridge slab that will be supported by the new walkway.

To achieve this support, the form of the new walkway slab at the top landing will feature a 6” deep ledge that will span the width of the intersection to pick up the load from the cantilevered portion of existing bridge slab.

Beyond that ledge, the slab form at the top landing will continue the form of the column supported portion of the walkway as it moves towards the Bird House then turn towards the existing bridge to make the intersection.

This formal strategy was chosen to minimize column needs at the top landing and better integrate the top landing support structure with the rest of the walkway form. 10’ – 0” minimum offsets will still be maintained for adjacent fencing which will be screened by plants to obscure views into the adjacent utility yard.

Perspective View of GFA Bridge Intersection



The proposed intersection allows the new guardrails to pass onto the existing bridge on the inside of the cut into the upturned beam and terminate at stanchions on the existing bridge slab. Moving the cut further from the Bird House façade will leave a greater portion of the existing bridge elements on the building side of the intersection.

New posts will be added to the existing handrail for the GFA bridge and the portion of existing guardrail to be removed for the intersection will be salvaged to assist with any future repairs.

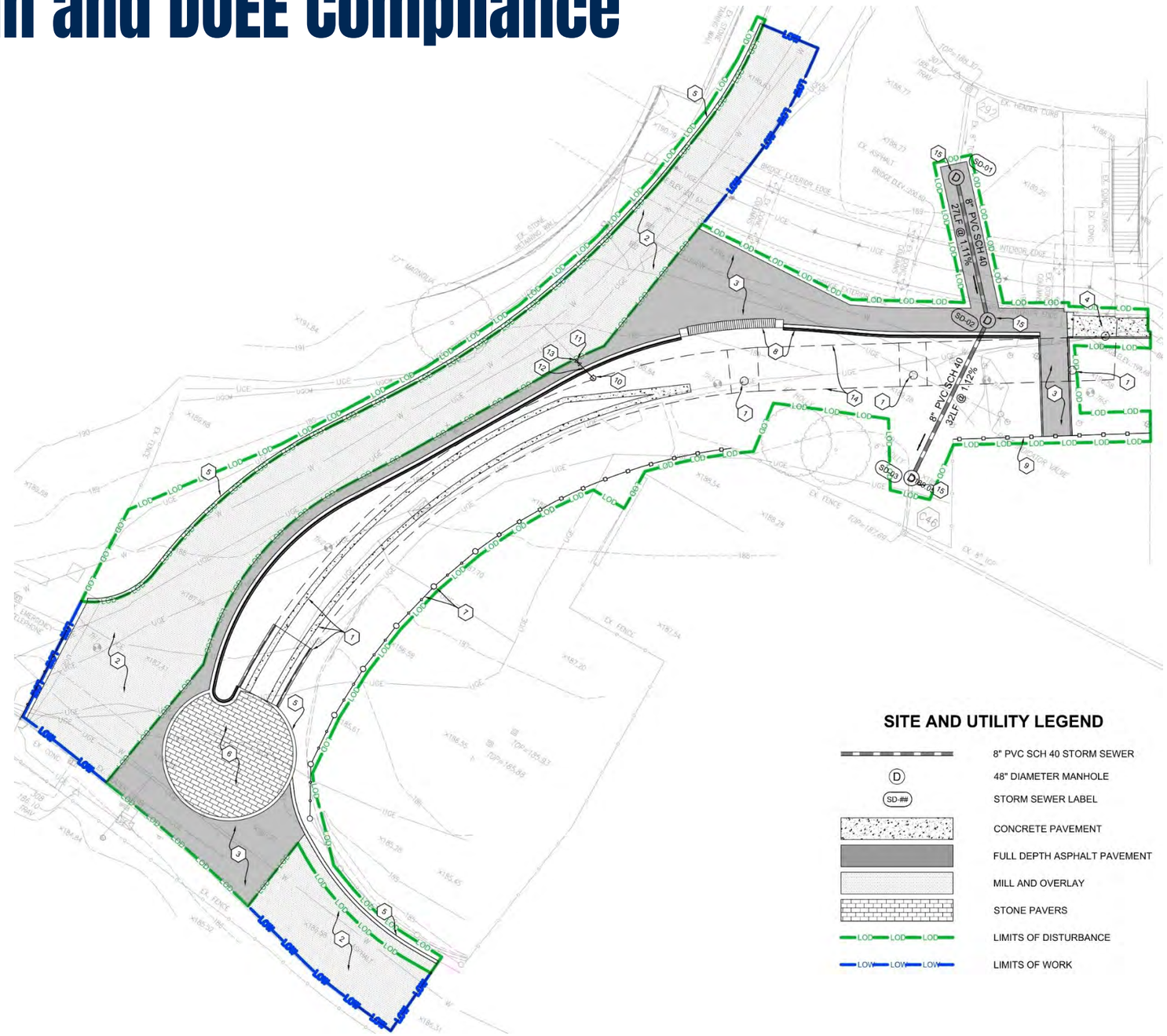
Limit of Disturbance Plan and DOEE Compliance

This project will be considered a Major Land Disturbance per DOEE regulations as the development disturbs greater than 5,000 sf of land area.

As such the project will incorporate best management practices to achieve a Stormwater retention value appropriate for rainfall depth of 1.2 inches.

<u>Possible strategies for this site to include:</u>

Bioretention
Underground Stormwater management



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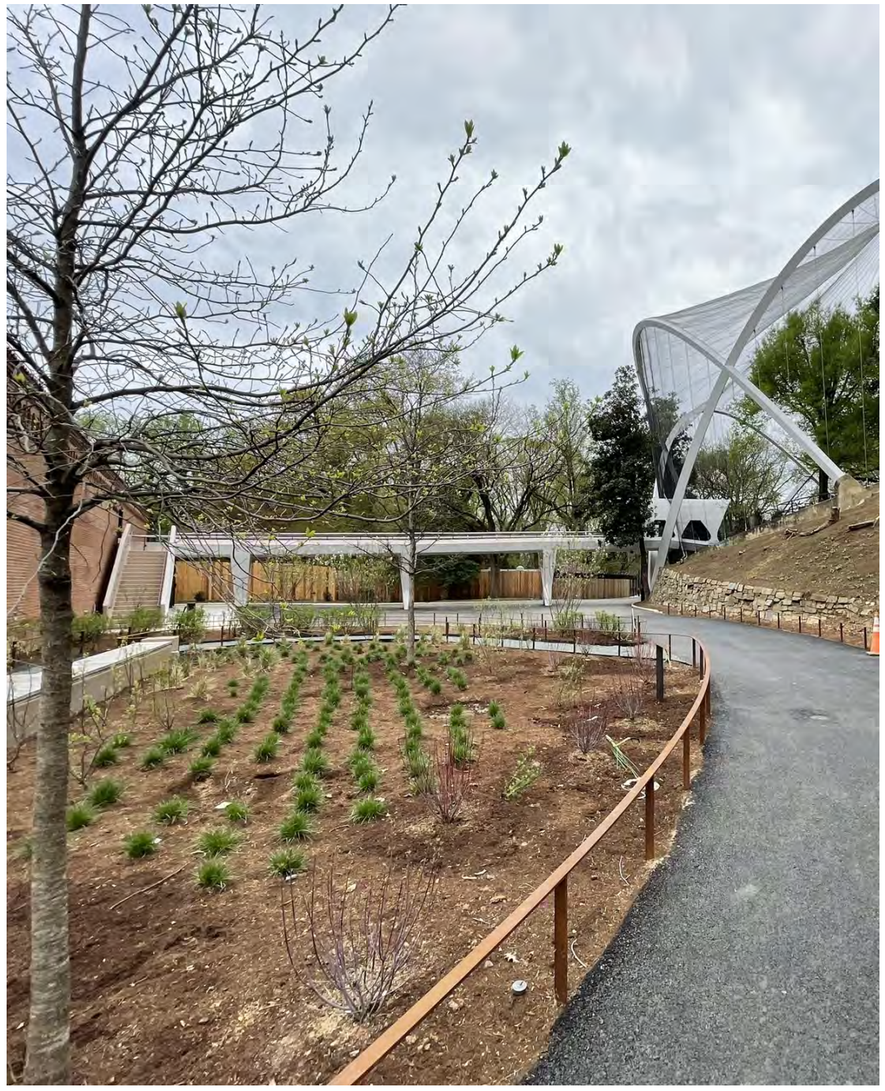
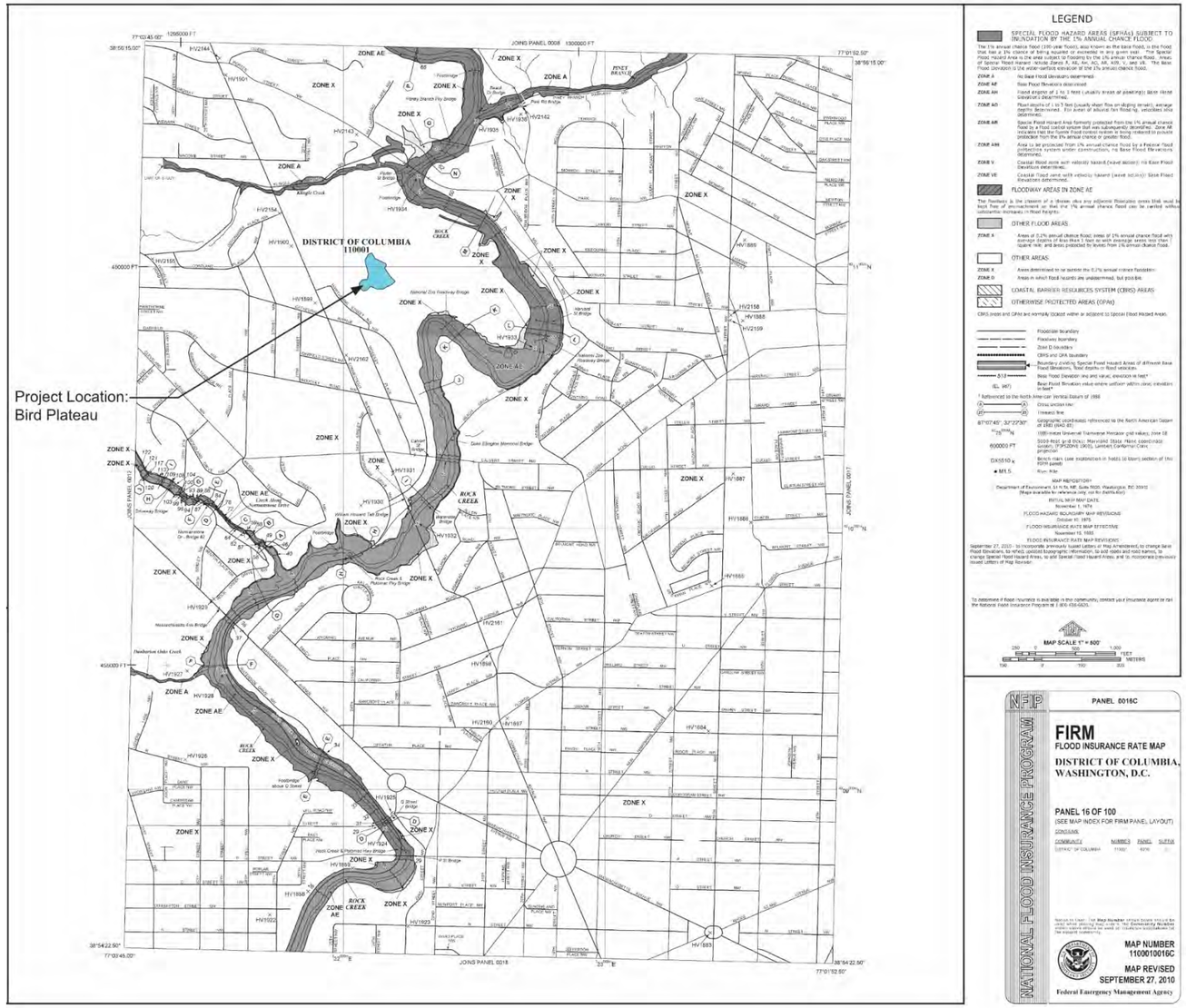
APPENDICES



Appendix A: Flood Insurance Rate Map

No Impact on Floodplain or Wetlands

Per FEMA's District of Columbia's Flood Insurance Rate Map (FIRM) panel 11100010016C (effective 9/27/2010) , the project area is within Zone X, an area of minimal flood hazard. The project does not impact a wetlands area.



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Appendix B: Meeting Minutes Staff Meeting 1

MEETING MINUTES

PROJECT NAME:	**GREAT FLIGHT AVIARY (GFA) ACCESSIBLE WALKWAY**
OWNER:	**SMITHSONIAN INSTITUTION - NATIONAL ZOOLOGICAL PARK**
PROJECT #:	SF #2033125 // QE# 42346300
MEETING DATE:	October 02, 2023 | 11:30am – 1:00pm
SUBJECT:	External Agency Staff Review
ATTENDEES:	

Name	Company	Role
Joe Superak	SF-OPDC	Design Manager
Derek Roberts	SF-OPDC	Branch Chief - Design
Matthew Sellers	NZP	Exhibits & Planning, Landscape Architect
Ann Trowbridge	SF-OPDC	Planning, Associate Director for Planning
Jane Passman	SF-OPDC	Planning, Senior Facilities Master Planner
Carly Bond	SF-OPDC	AHHP, Deputy Director
Millie Latack	SF-OPDC	AHHP
Andrew Lewis	DC SHPO	
Daniel Fox	CFA	
Carlton Hart	CFA	
Jamie Herr	NCPC	
Kathryn Slattery	QE	Arch. Principal in Charge
Peter Baker	QE	Project Manager, Architect & Landscape Architect
Elliot Rhodeside	RHI	Landscape Architect, Principal

The objective of this meeting was to introduce the project the external agencies (CFA, NCPC, DC SHPO) and gain feedback on the preferred option and location.

DISCUSSION NOTES:

- Andrew Lewis (DC SHPO):
  - Preferred the background location, south of the GFA Bridge, over the other locations north of the bridge and indicated the Smithsonian's preferred option was the most appropriate selection from the initial studies given the goals of the project.
  - Suggested that the materials and/or style match the new landscape elements north of the Bird House (corten railings, plant material, etc.) to align with the material palette of the most recent renewal and not add a fourth style to the plateau.

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- Derek Roberts (SF-OPDC):
  - Emphasized NZP's desire to maintain and enhance the programmatic flow of visitors from the internal Bird House exhibits to the exterior exhibits; the GFA and the path that wraps around the south side of the Bird Plateau.
- Carly Bond (SF-OPDC):
  - Emphasized that options B & D had less impact on historic fabric because they reused an existing opening on the GFA Bridge but had strong visual impact.
- Carlton Hart (CFA):
  - Received confirmation that visitors were not missing exhibits north of the GFA Bridge if they followed the prescribed programmatic path. With this understanding, he indicated that the Smithsonian's preferred option made sense.
  - Suggested further study of wayfinding signage at the top and bottom of the ramp for crowd management and interpretation.
- Andrew Lewis (DC SHPO):
  - Received confirmation that the ramp would not touch the historic Bird House building and inquired about the connection of the ramp to the bridge. Questioned the proximity of the ramp to the bridge, particularly in regards to how the supports of the ramp would relate to the supports of the bridge and the vestibule below. Suggested providing a slightly wider buffer between the two elements while also understanding the project did not want to make it feel like there was an additional bridge from the GFA bridge to the ramp.
- Daniel Fox (CFA):
  - Questioned what happens under the ramp. Is this area programmatically defined? How does it avoid becoming an area that collects clutter, trash, etc?
  - Inquired about the options that made finding the ramp easier when entering the Bird Plateau from the north but understood that the preferred option makes the most sense as mainly an egress ramp from the bridge when seen as part of the overall prescribed programmatic sequence for the Bird House and Bird Plateau exhibits.
- Carlton Hart (CFA):
  - Questioned the views as you start down the ramp from the bridge (overlooking the Utility Yard) as well as those along the ramp (towards the GFA and the future LSS building). Wanted to see if the back of house elements could be screened and the visitors views be guided as they move along the ramp.
- Jamie Herr (NCPC):
  - Indicated that the best option was selected.
  - Suggested that NZP not just rely on the ramp to help guide visitors to the southern exterior exhibits but rather provide additional and/or better signage.
- Jane Passman (SF-OPDC):
  - Summarized the following as next steps for design:
    - Explore screening for the utility yard
    - Develop materiality and details for the ramp, particularly at its point of connection to the bridge and at grade.

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Appendix C: Meeting Minutes Staff Meeting 2

MEETING MINUTES

PROJECT NAME:	**GREAT FLIGHT AVIARY (GFA) ACCESSIBLE WALKWAY**
OWNER:	**SMITHSONIAN INSTITUTION - NATIONAL ZOOLOGICAL PARK**
PROJECT #:	SF #2033125 // QE# 42346300
MEETING DATE:	December 04, 2023 | 3:00pm – 4:30pm
SUBJECT:	External Agency Staff Review #2
ATTENDEES:	

Name	Company	Role
Joe Superak	SF-OPDC	Design Manager
Derek Roberts	SF-OPDC	Branch Chief - Design
Matthew Sellers	NZP	Exhibits & Planning, Landscape Architect
Ann Trowbridge	SF-OPDC	Planning, Associate Director for Planning
Jane Passman	SF-OPDC	Planning, Senior Facilities Master Planner
Carly Bond	SF-OPDC	AHHP, Deputy Director
Millie Latack	SF-OPDC	AHHP
Carlton Hart	CFA	
Lee Webb	NCPC	
Jamie Herr	NCPC	
Kathryn Slattery	QE	Architect. Principal in Charge
Peter Baker	QE	Project Manager, Architect & Landscape Architect
Elliot Rhodeside	RHI	Landscape Architect, Director
Ting Huang	RHI	Landscape Architect, Associate

The objective of this meeting was to update the external agencies (CFA, NCPC, DC SHPO) on the evolution of the concept design based on feedback they provided during the first meeting and gain insight on anticipated submission schedule for official review.

DISCUSSION NOTES:

- Lee Webb (NCPC):
  - Questioned the effectiveness of offsetting the single column supports. Indicated that a centered approach might better pair with the existing bridge. The SI & AE team indicated the offset was done to help physically separate and differentiate the ramp structure from the bridge supports and to keep the profile of the deck thin on the northern edge as that would be the side visitors would most often

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view. The AE team indicated they could further study this design issue during design development phase. Carlton Hart echoed these observations and concerns.

- Carlton Hart (CFA):
  - Questioned the size of the opening at the connection of the ramp to the existing bridge. Expressed concern about the size/length of the portion of upturned beam near the building since it appears too short. The SI & AE team indicated that the goal was to provide a unified space that connected the stair, access to the Bird House, and ramp entrance so visitors had a comfortably sized, common place of transition in lieu of the initial layout that had a significant jog. The AE team indicated they would continue to study the length and location of the opening.
  - Indicated agreement in the adaptation of the railing system already present on the Bird Plateau (Dark Metal Bar stock with wire mesh infill). Questioned the attachment detail and potential for staining of the ramp's concrete deck. The AE team indicated they would be studying the connection detail further to address this concern.
  - Questioned the need for the knee rail along the planter on the outside curve of the ramp. The SI & AE team indicated that such measures are typical on the Bird Plateau to protect the planting areas from pedestrians and vehicles. The AE team indicated they would be studying the transition of the knee rail to the guardrail in the design development phase.
  - Inquired about the color/finish of the ramp's concrete deck and columns. The AE team indicated this would be studied further during the next phase of design, but that the intention was to select something that was complementary but distinctly different from the existing GFA bridge (painted white concrete supports and underside/outside surfaces, painted off-white/beige for interior walking surface).

- Lee Webb (NCPC):
  - Indicated agreement in using existing guardrail and kick rail details as precedents.
  - Indicated agreement that the color/finish should work with the existing bridge but not match it.
  - Indicated need to hear DC SHPO's comments regarding the connection of the ramp to the existing bridge and the necessary loss of historic fabric.
  - Indicated need for more detail from the DD phase to obtain staff support for official submission.

- Carly Bond (SF-OPDC):
  - Indicated that SI would be following up with DC SHPO to provide this presentation and gain feedback that would be shared with all parties.
  - Reminded the group that the existing GFA Bridge will need to be replaced in the next 30-40 years due to ASR concerns.

- Carlton Hart (CFA):
  - Indicated that overall, the design concept is solid and headed in the right direction.
  - Would like to see further detailing development and finish/color selections before making a recommendation on submitting for official review.
  - Suggested a follow up meeting or submission of draft material in mid-to-late January.

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