



Vietnam Veterans Memorial Center

NPC Revised Concept Submission April 3, 2009 | POLSHEK PARTNERSHIP ARCHITECTS



The Vietnam Veterans Memorial Fund, The National Park Service and the VVMC design team is pleased to submit the following revised concept design proposal for the Vietnam Veterans Memorial Center. The revisions to the design have been carefully considered in light of the suggestions, concerns and criticisms of both the Commission of Fine Arts and the National Capital Planning Commission, as indicated at respective commission hearings in the Fall of 2007. The design has been further refined as a result of joint consultation with staff members of both commissions, as well as representatives from the DC Historic Preservation Office in February of 2009. The following document compares the design as it was in the Fall of 2007 with the refinements that have been made to date.

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I. National Capital Planning Commission ACTION & COMMENTS

NCPC File No. 6597



VIETNAM VETERANS MEMORIAL VISITORS CENTER

On the Grounds of the Lincoln Memorial bounded by Constitution Avenue,
Henry Bacon Drive, Lincoln Memorial Circle, and 23rd Street, NW
Washington, D.C.

Submitted by the National Park Service

December 6, 2007

Commission Action Requested by Applicant

Approval of comments on concept design pursuant to Public Law 108-126 and the Commemorative Works Act (40 U.S.C. 8905).

Commission Action

The Commission:

Previously approved on August 3, 2006 "Site A for the Vietnam Veterans Memorial Visitor Center, on the parcel bounded by Constitution Avenue, Henry Bacon Drive, Lincoln Memorial Circle, and 23rd Street, NW as shown on NCPC Map File No. 1.43(73.10)42074, conditioned upon the implementation of the package of mitigation set forth in the design guidelines below that is necessary to reduce the otherwise significant impacts of the proposed action, as indicated in the Executive Director's finding of no significant impact for the site selection."

Comments favorably on the design elements of the proposed Visitor Center that meet the following mitigation actions established by the Commission at site approval:

- "The Visitor Center's entrance will be only minimally visible from the Vietnam Veterans Memorial to satisfy the project's purpose and need, but in accordance with the authorizing legislation not interfere with or encroach upon the Vietnam Veterans Memorial." (#2)
- "To maintain the character of the historic landscape, the Visitor Center's design concept will be based on maintaining the existing grade, and any new slopes will be gradual. The project will raise the existing site grade only to allow for an accessible entry ramp." (#3)

- "The Visitor Center's design will provide only the paved area necessary for visitors to enter and exit the building and which will also provide service access. The design will not include additional paved area for gathering space or queuing." (#7)
- "The project will not include new vehicle parking areas." (#8)
- "The Visitor Center will have a single entrance for both visitors and service." (#9)
- "The project will place new landscaping on the site in accordance with the National Park Service's Cultural Landscape Report (CLR) for the Lincoln Memorial referenced in the Environmental Assessment and will maintain the open grass panel on the site surrounded at the site's perimeter by elm trees." (#12)

Comments unfavorably on the design elements of the proposed Visitor Center that do not meet the following mitigation actions established by the Commission at site approval **and requires** the applicant to modify the project design to meet them:

- "The Visitor Center will be constructed underground as required by the authorizing legislation for the project with no portion of the building or related building elements visible from any portion of the Lincoln Memorial steps and podium, from Constitution Avenue, and from within the axial view sheds of 23rd Street, NW and Henry Bacon Drive, NW." (#1)

While the submission materials depict that the building is to be built underground, they also depict that some building elements are visible from the Lincoln Memorial steps and podium, from Constitution Avenue, and from within the axial view sheds of 23rd Street, NW and Henry Bacon Drive, NW. Project design revisions should reduce the scale of building openings and the protrusion of building elements that are visible from these areas.

- "The Visitor Center will not intrude into the landscape. No protrusions such as skylights, monitors, light wells, or sunken areaways, will be visible from the sidewalk surrounding the site." (#5)

The submission materials depict that the building's exhibit walls with skylights and sunken courtyard areaway are visible from the sidewalk surrounding the site. Project design revisions should ensure that these elements are not visible from the surrounding sidewalks.

Finds that there is not enough information to evaluate whether the design elements of the proposed Visitor Center meet the following mitigation actions established by the Commission at site approval **and requires** that the applicant provide further information on and analysis of these design elements prior to or during the preliminary design phase:

- “The Visitor Center will be designed such that light emanating from the Center’s interior will not be visible from any portion of the Lincoln Memorial, from Constitution Avenue, and from the Vietnam Veterans Memorial so as not to interfere with or encroach upon the Lincoln Memorial or the Vietnam Veterans Memorial.” (#4)

and

- “The Visitor Center’s site lighting for public safety will not interfere with or encroach upon views to and from the Lincoln Memorial and the Vietnam Veterans Memorial.” (#6)

The applicant has not yet designed the project lighting. Project lighting should be designed to meet these mitigation actions.

- “The Visitor Center’s associated pedestrian street crossing points will be designed to address traffic impacts effectively and to protect pedestrian safety.” (#10)

The applicant has not yet designed the project’s pedestrian crossing points. Project pedestrian crossing points should be designed to meet this mitigation action.

- “The Visitor Center will be constructed only on the portion of the site that lies outside of the critical root zone of existing elm trees. The applicant will develop a tree protection plan to protect and preserve the trees both during and after construction in accordance with standard design and construction procedures.” (#11)

The applicant has not yet demonstrated the actual location of the critical root zone of existing elm trees. Project materials should include a survey of the critical root zone to demonstrate how the project will meet this mitigation action.

- “The Visitor Center design will not impede the use of the site for multi-purpose recreation on the site.” (#13)

While the submission states that an estimated 40% percent of the site will be available for multi-purpose recreation, the configuration of the space changes the nature of the landscape and limits the types of activities that can be accommodated on the site. Project materials should depict what types of recreation activities can be accommodated on the site to meet the mitigation action.

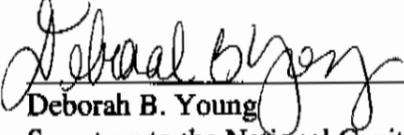
- “The Visitor Center will be designed without guardrails or perimeter security elements.” (#14)

The submission states that the Visitor Center will be designed without guardrails or perimeter security elements. Project materials should demonstrate in greater detail how the sloped areas will eliminate the need for guard rails while ensuring pedestrian safety.

- “Requires the National Park Service to reconstruct softball fields lost as a result of this project on another site within one-half (1/2) mile of Site A, in accordance with the mitigation required in the Executive Director’s finding of no significant impact for the project.” (#15)

While NPS has indicated that it will seek to restore active recreation ball fields in the vicinity of the polo grounds located in West Potomac Park, NPS has not yet provided detailed information on this approach. Project materials should depict where these ball fields will be located in order to meet the mitigation action.

Notes the importance of the Commission’s consultation process **and recommends** that the applicant continue to meet with staff for consultation during the development of preliminary and final design phases to facilitate the Commission’s review of the project under its statutory review and approval process.


Deborah B. Young
Secretary to the National Capital Planning Commission

II. DESIGN REFINEMENTS

Following is a summary of the design refinements to The Vietnam Veterans Memorial Center:

A. Siting and Grading – The design team proposes that raising the elevation of the existing grade approximately 42” above its current level mitigates several concerns about the Center. First, a slight raise in grade reduces the overall vertical travel required from the perimeter sidewalks of the site, and therefore reduces the required overall approach ramp length. The reduced ramp length, in turn, permits several other improvements to occur:

1. a simpler ramp configuration that relates to the site’s geometry
2. an adjustment of the building siting further to the north which creates a better relationship to the existing National Park Service Concession Kiosk as well as to the perimeter tree root zone
3. an adjustment of the building siting that is now axial to the centerpoint of the Lincoln Memorial
4. an adjustment of the site stair, which is now axial to the Vietnam Veterans Memorial flagpole across Henry Bacon Drive
5. a more substantial berm along the east face of The Center which reduces the overall area of visible façade.

Furthermore, a slight raise in grade reduces the overall visibility of The Center by reducing the sight lines from various vantage points along the perimeter sidewalks of the site.

B. Details – Several revisions to specific building elements have been made to reduce the size, scale and visibility of these elements.

1. The exhibit wall skylights have been pulled down in section so that they are flush with the adjacent grade instead of protruding above the adjacent grass level. Consequently, there are no longer protruding volumetric skylight elements.
2. The exhibit walls have been pulled back in plan so that they no longer protrude into the courtyard. This reduces the overall scale and area of the building’s visible façade and vertical surface.
3. The guardrail condition along the northern perimeter of the courtyard is no longer achieved through the use of the exhibit walls, but is now created through the use of a lightweight architectural screen. This screen also acts as a sun control “veil” over portions of the building façade, allowing diffuse light to illuminate the interior while mitigating the effects of the direct sun. The screen further acts as a gentle separator between the emotionally charged experience of the interior and the activity of the outside world.

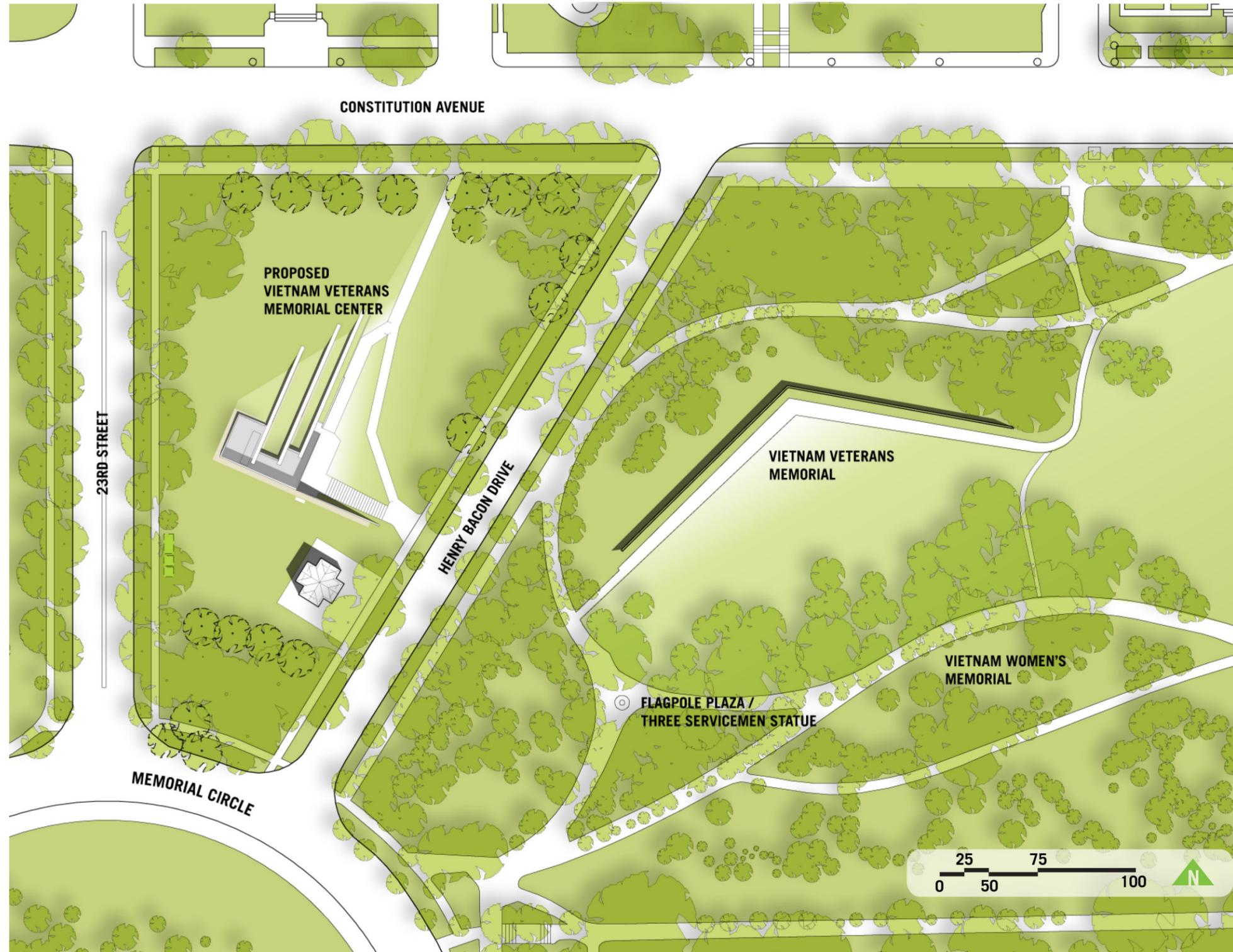
Finally, a refinement of the “ha-ha” detail which reduces the 18” high step at the bottom of the slope to a mere 6” curb improves the safety of this condition.

C. Building Planning and Size – Both the overall size of the building footprint as well as the overall gross area of the building have been reduced. This has occurred through a program reduction – the elimination of the Resource Center and Classrooms – as well as a modest reduction in the overall dimension of the courtyard.

A. SITING & GRADING

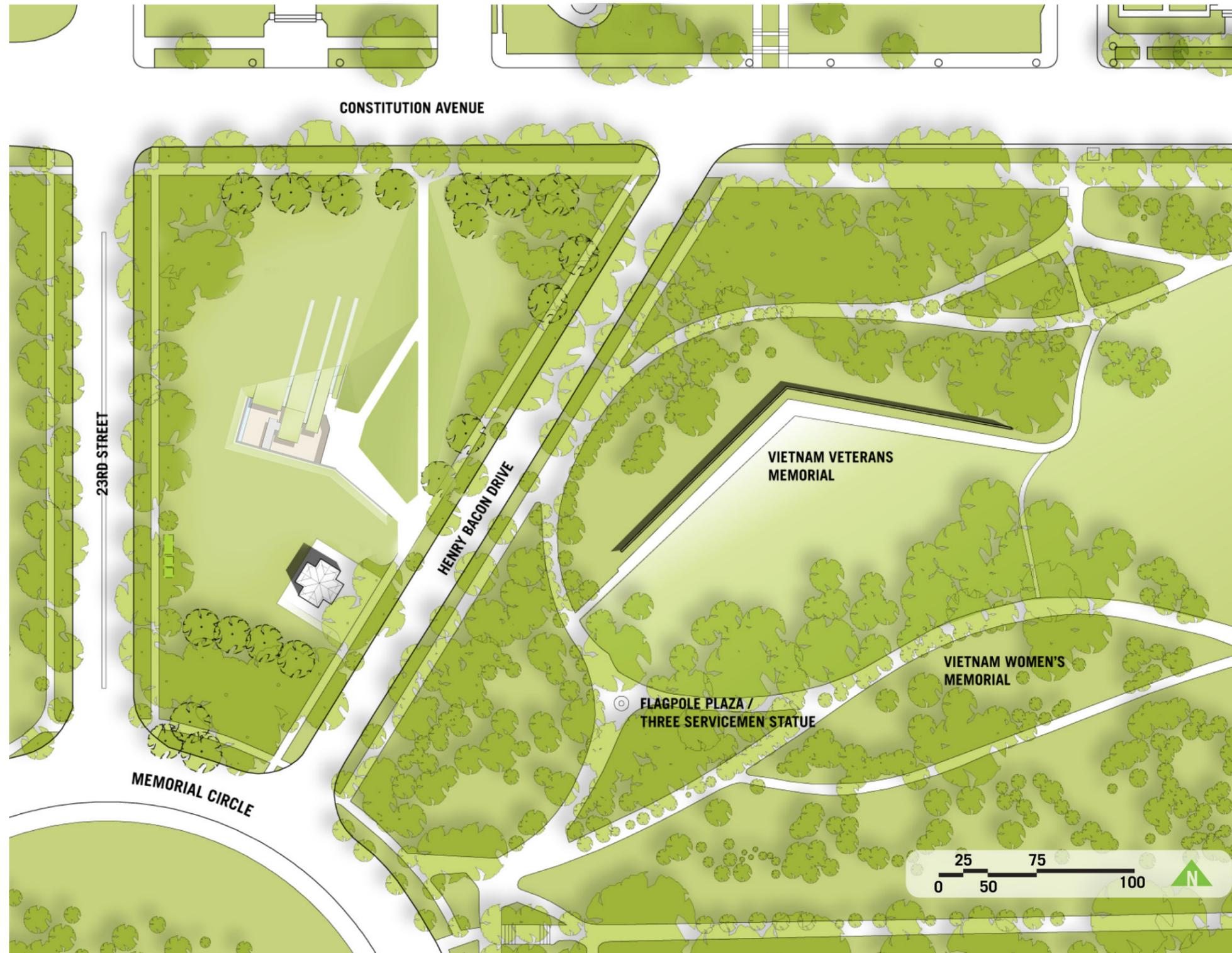
2007

2007 CONCEPT DESIGN REVIEW - Site Plan



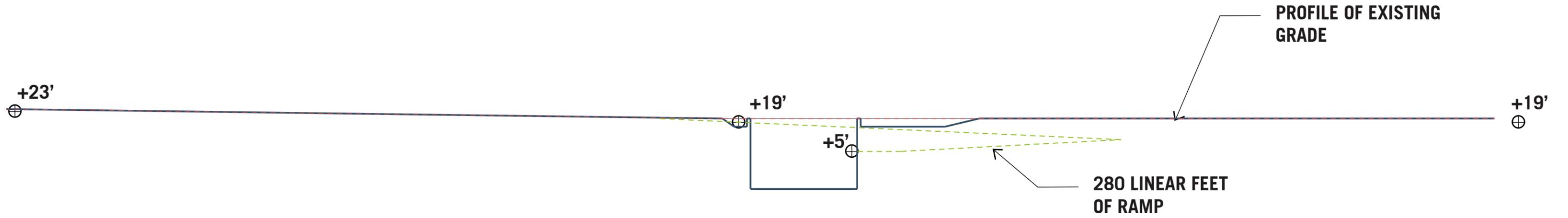
2009

2009 REVISION - Site Plan

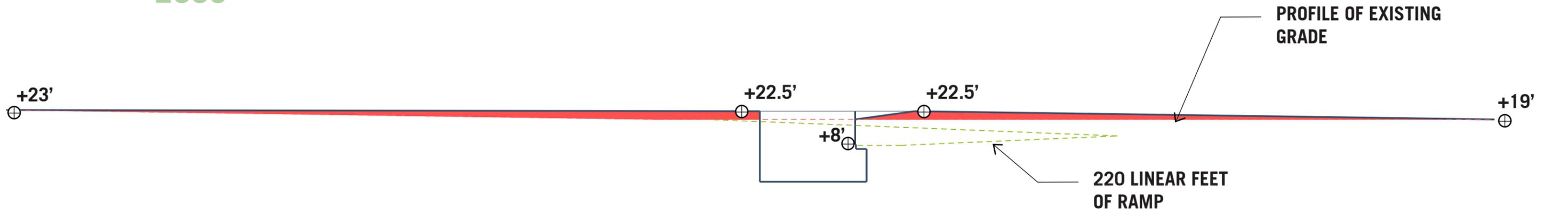


SITE SECTION COMPARISON

2007

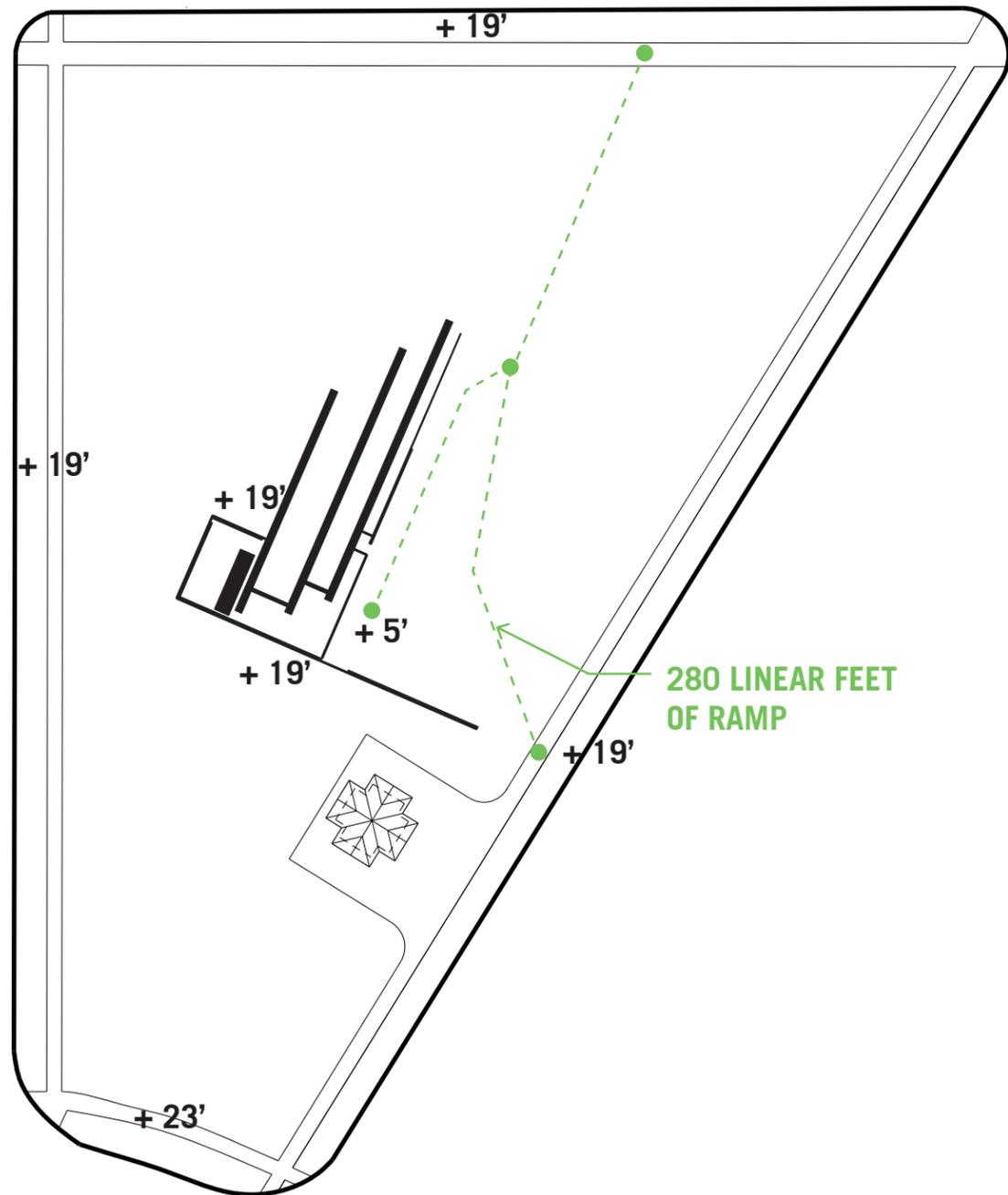


2009

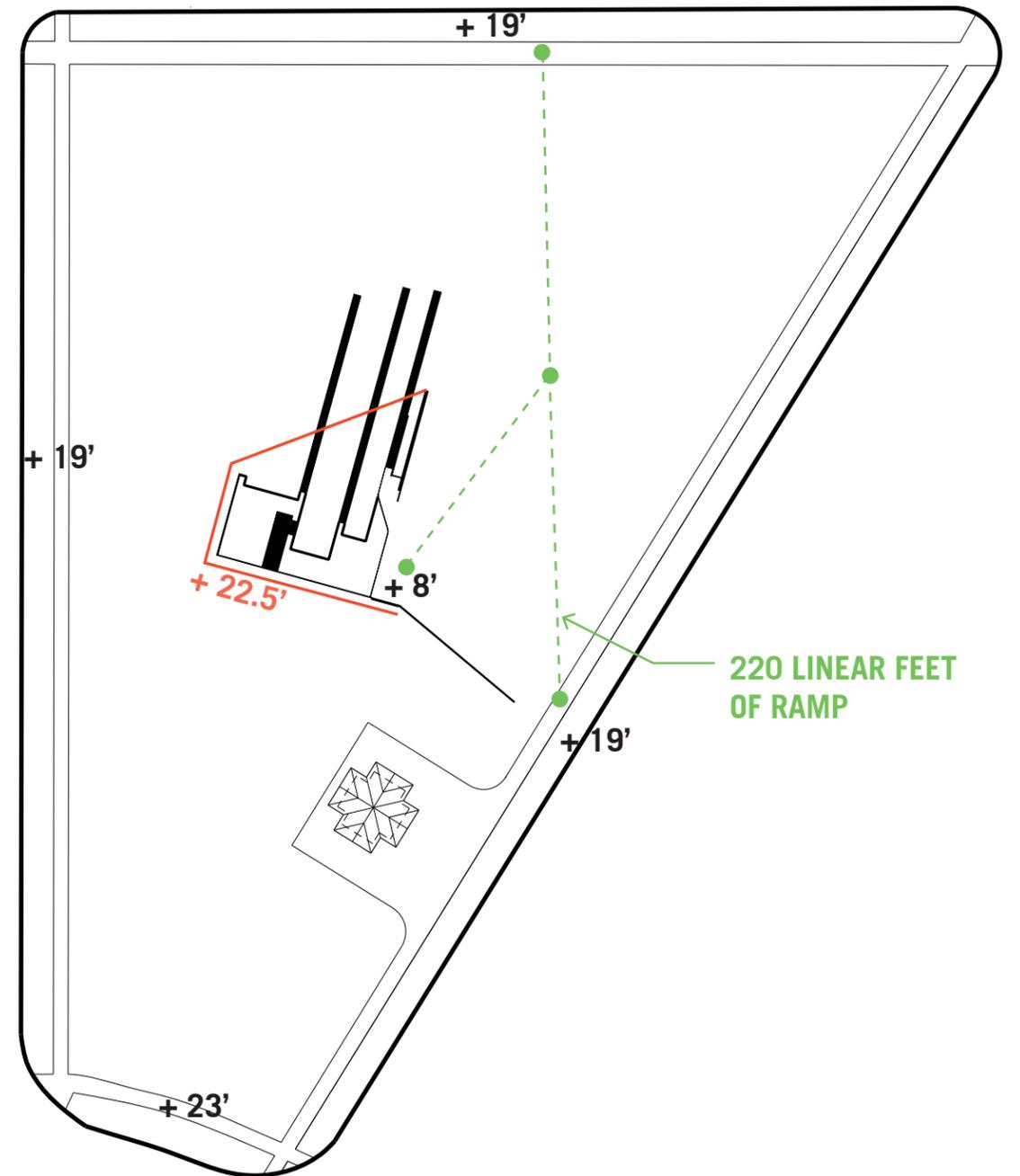


COMPARISON OF RAMP LENGTH

2007



2009

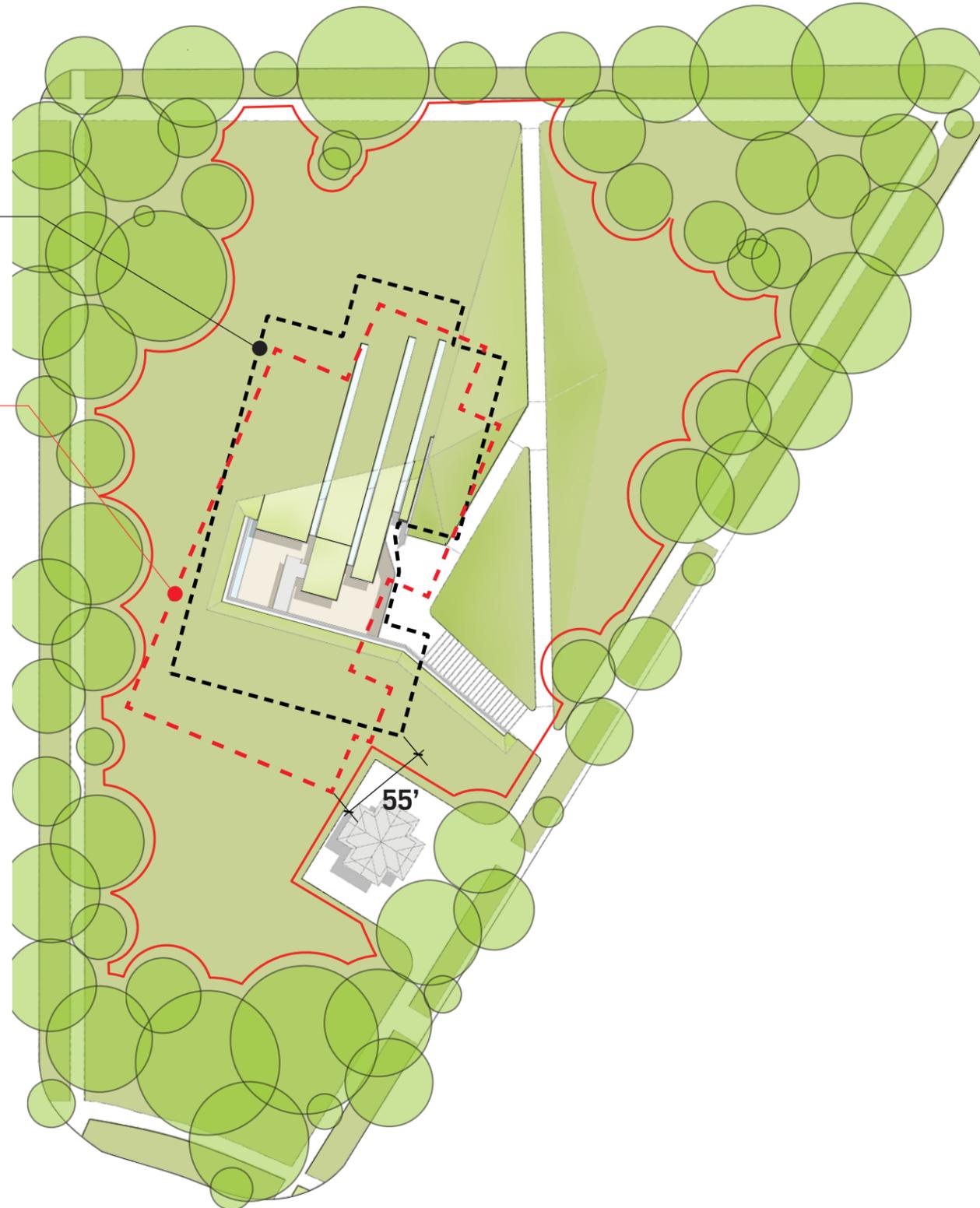


2009

COMPARISON OF BUILDING SITING

2009 REVISED
BUILDING FOOTPRINT

2007 CONCEPT DESIGN
BUILDING FOOTPRINT



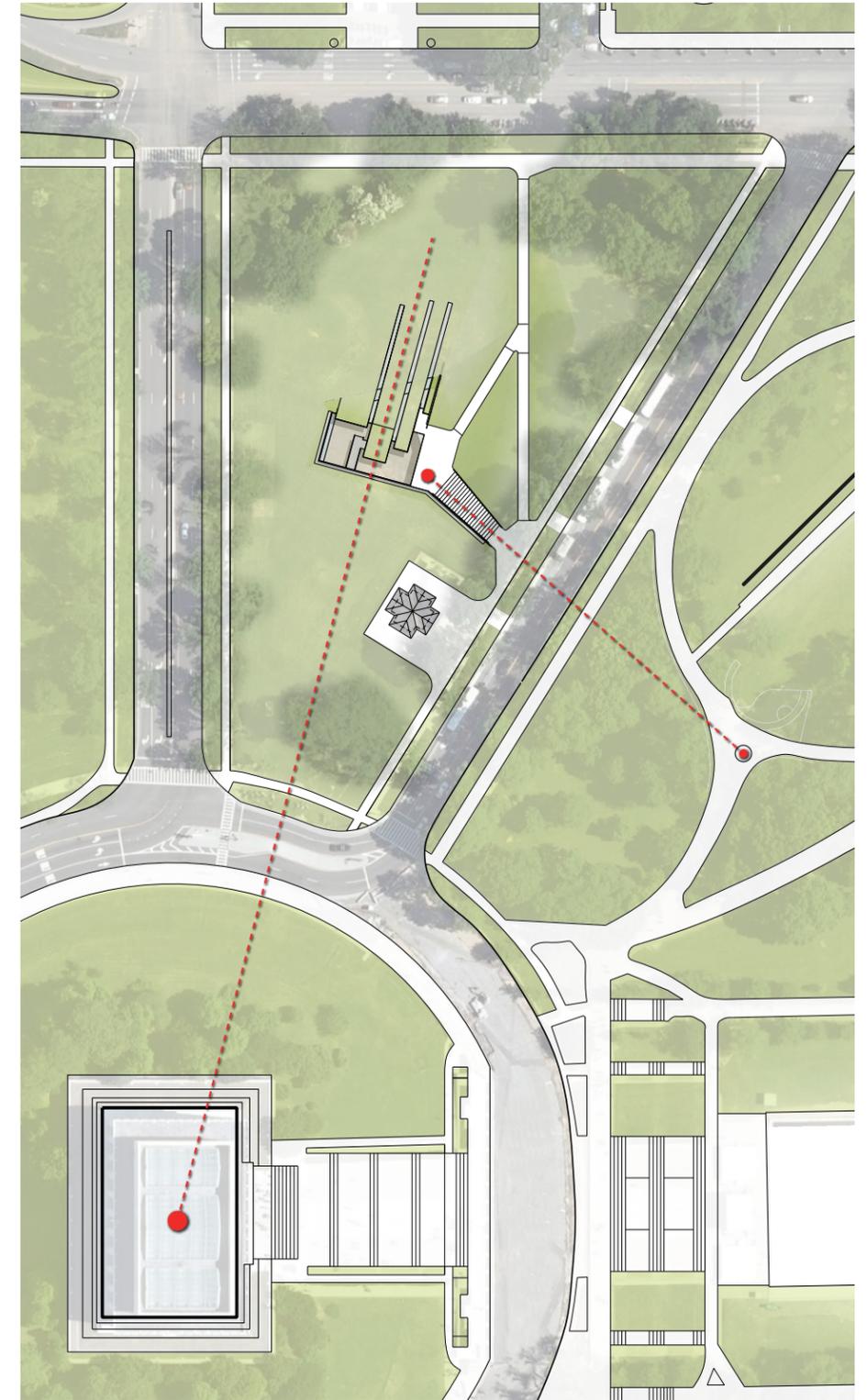
REVISED SITE ORIENTATION & PATH VIEWS



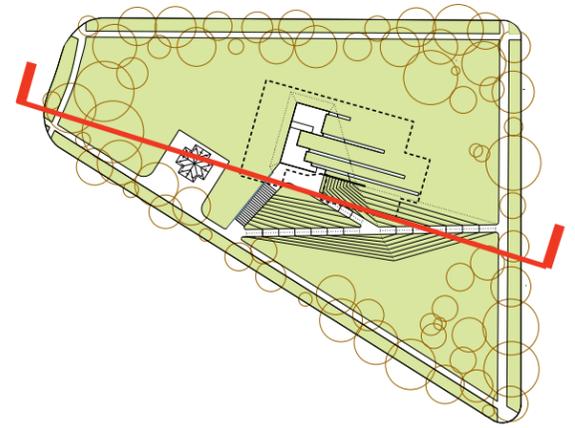
I. View From North End of Path



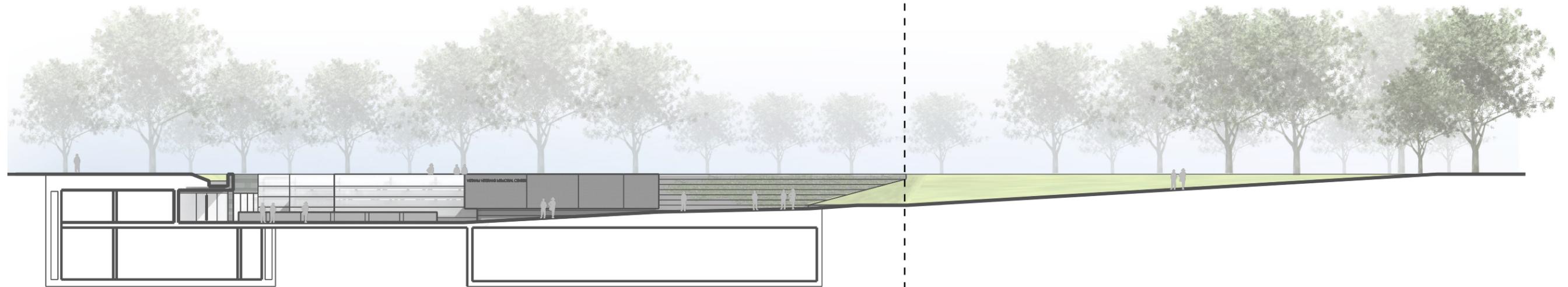
II. View From Entry Towards Flag



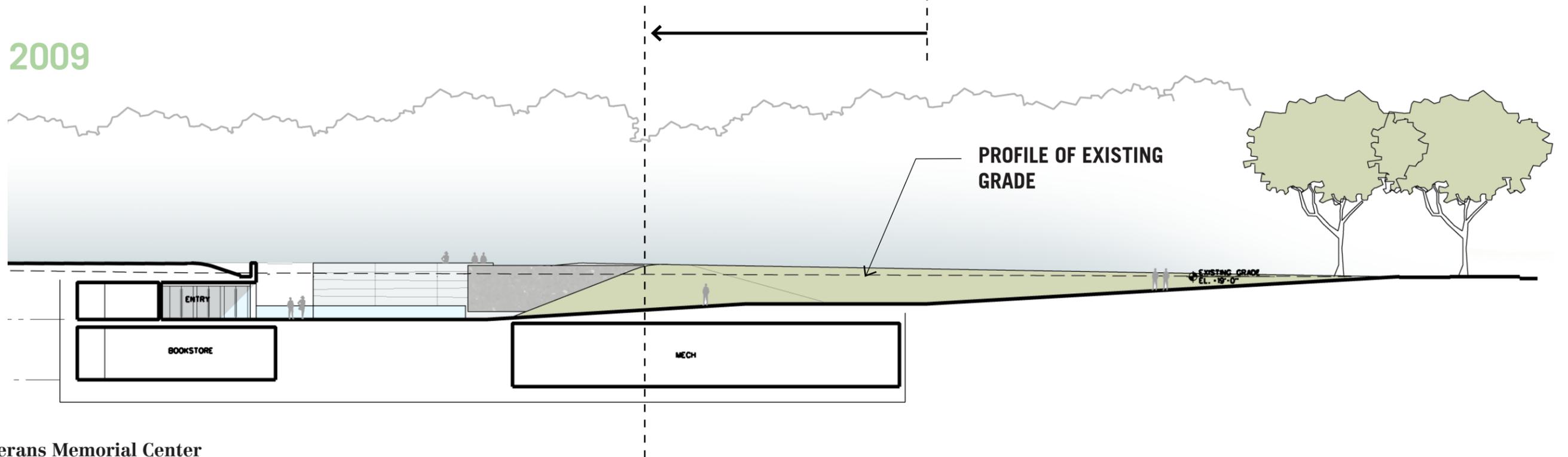
COMPARATIVE NORTH/SOUTH SECTION



2007

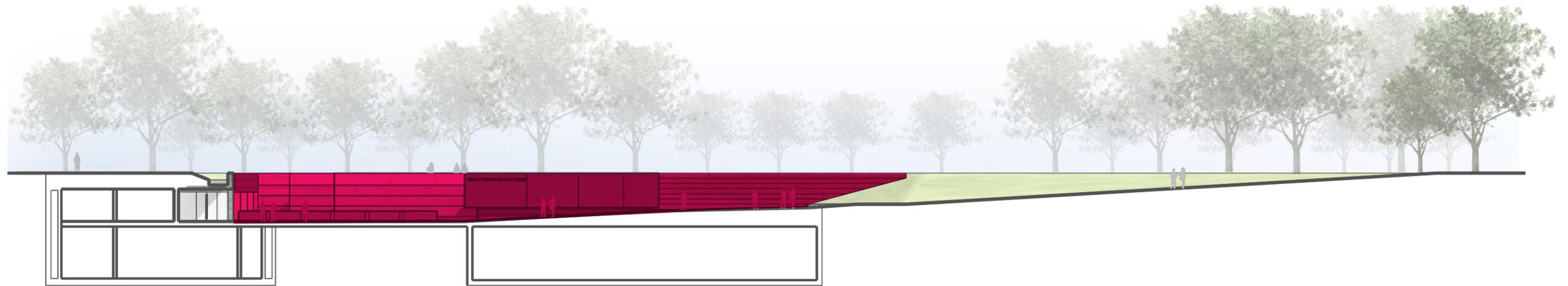
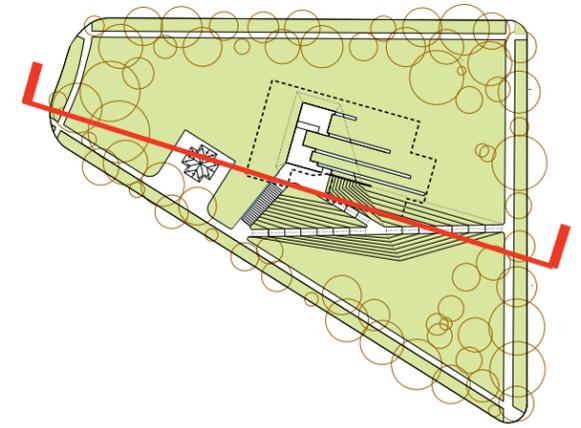


2009

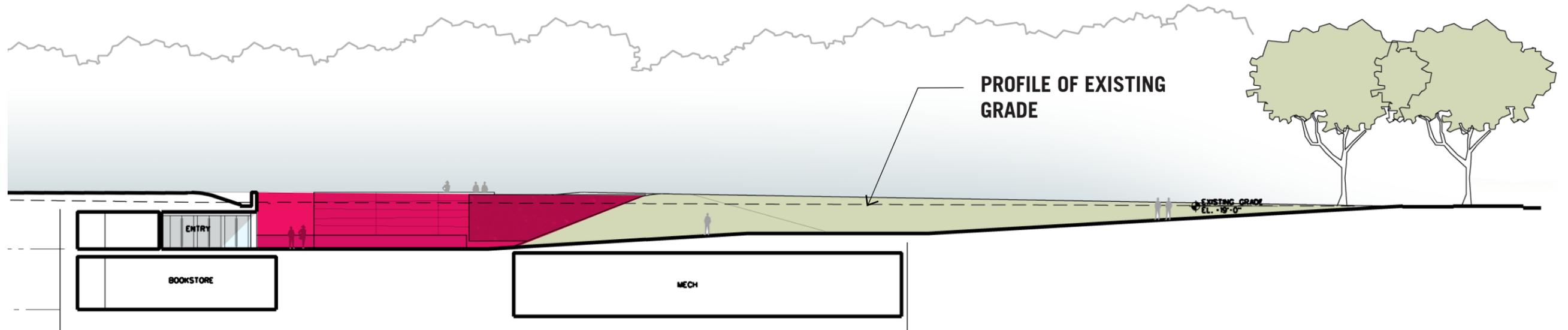


ENTRANCE FACADE VISIBILITY

2007

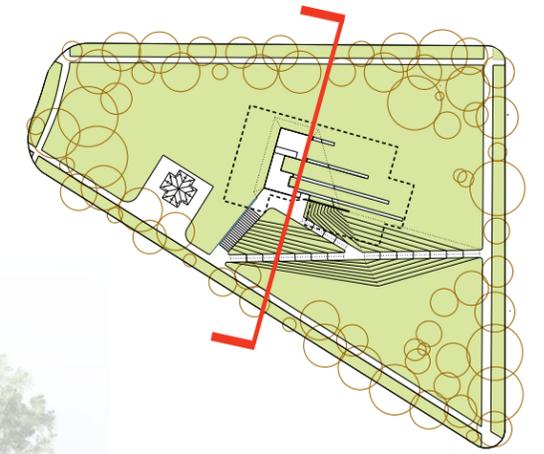
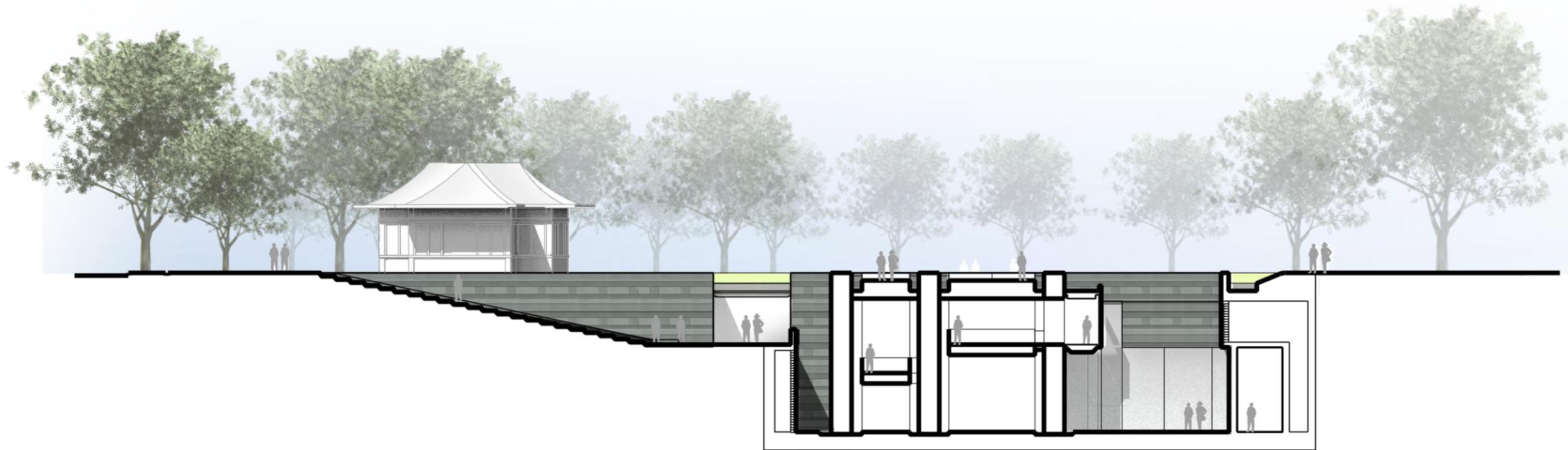


2009

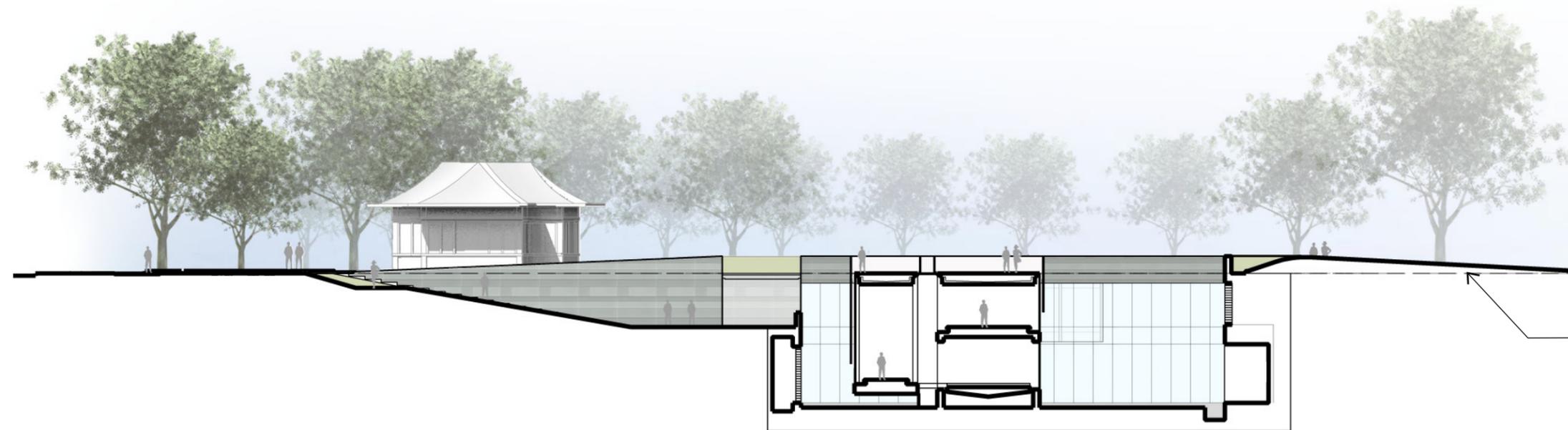


COMPARATIVE EAST/WEST SECTIONS

2007



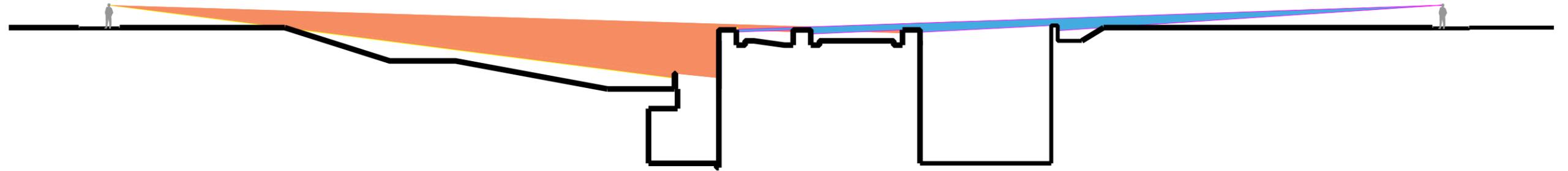
2009



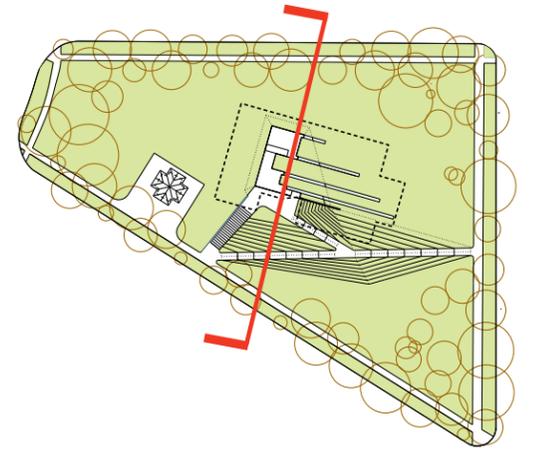
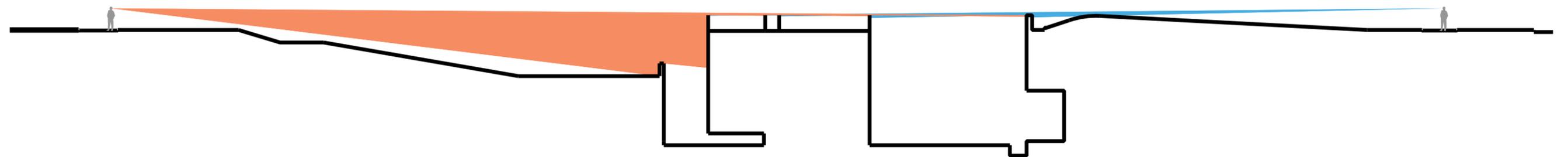
PROFILE OF EXISTING GRADE

COMPARATIVE SIGHTLINE DIAGRAM

2007



2009

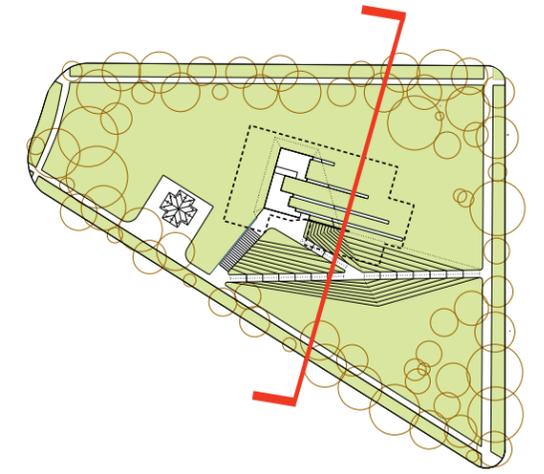


COMPARATIVE SIGHTLINE DIAGRAM

2007

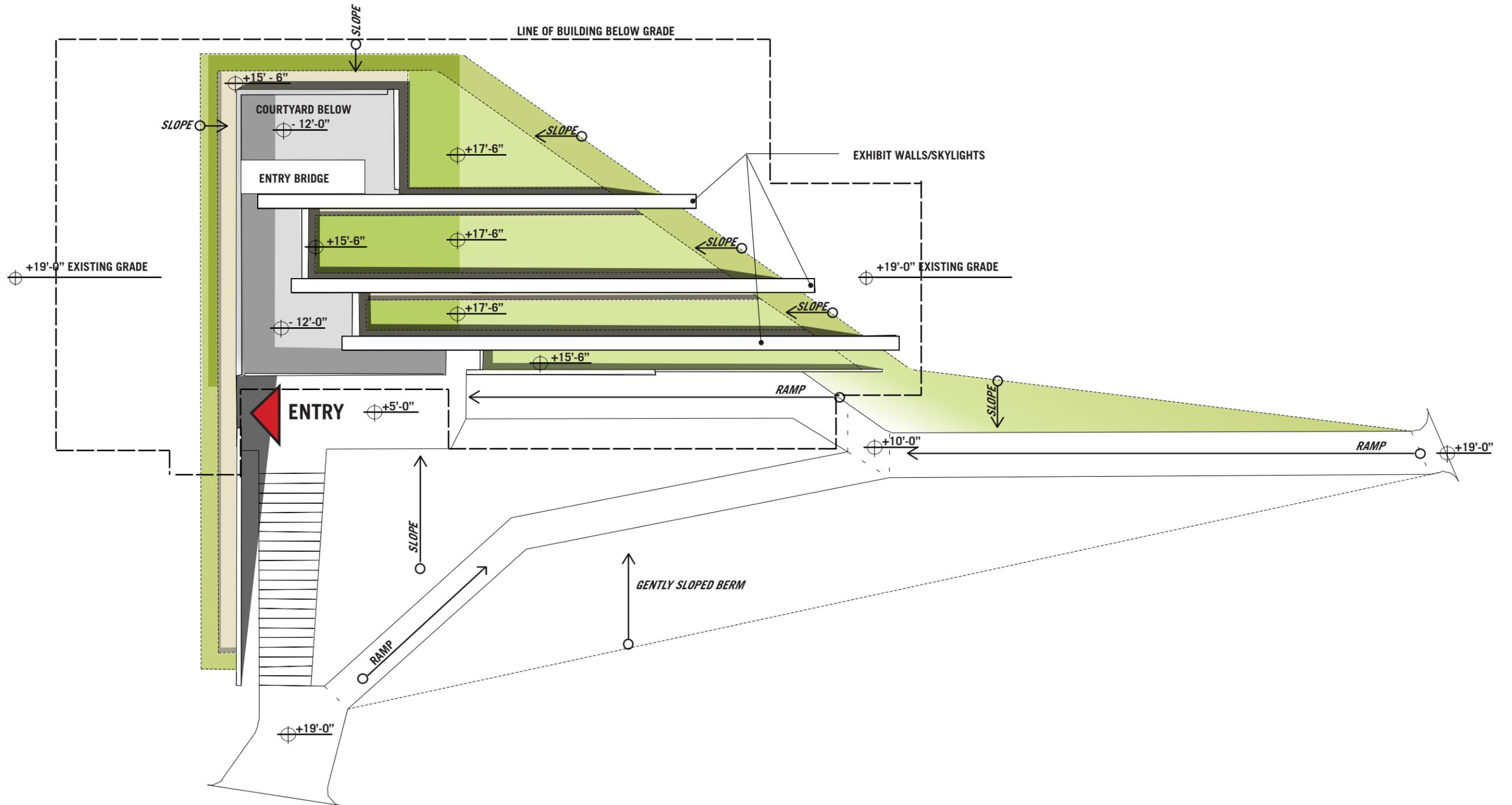


2009

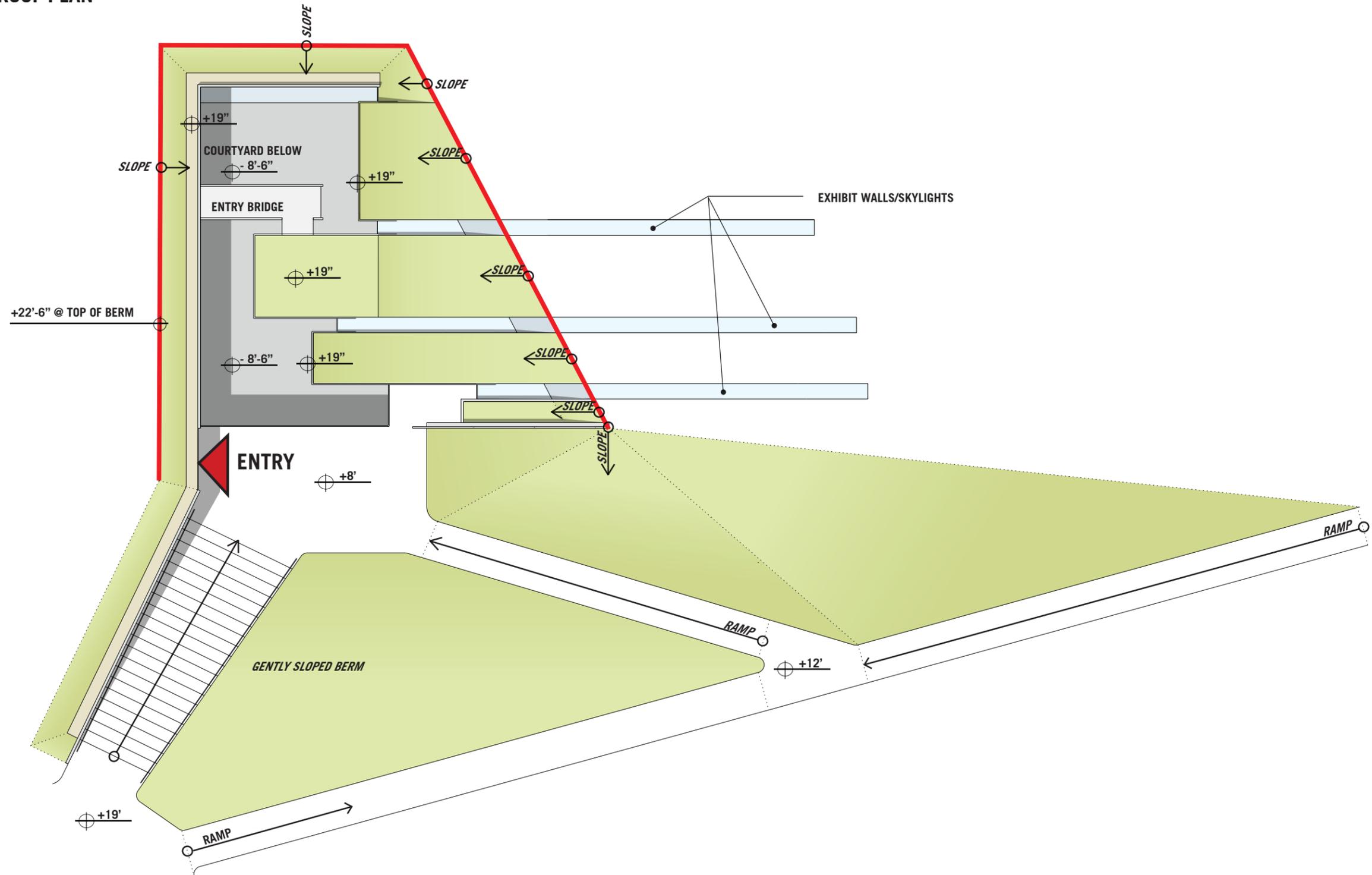


B. DETAILS

2007 CONCEPT DESIGN REVIEW - Roof Plan

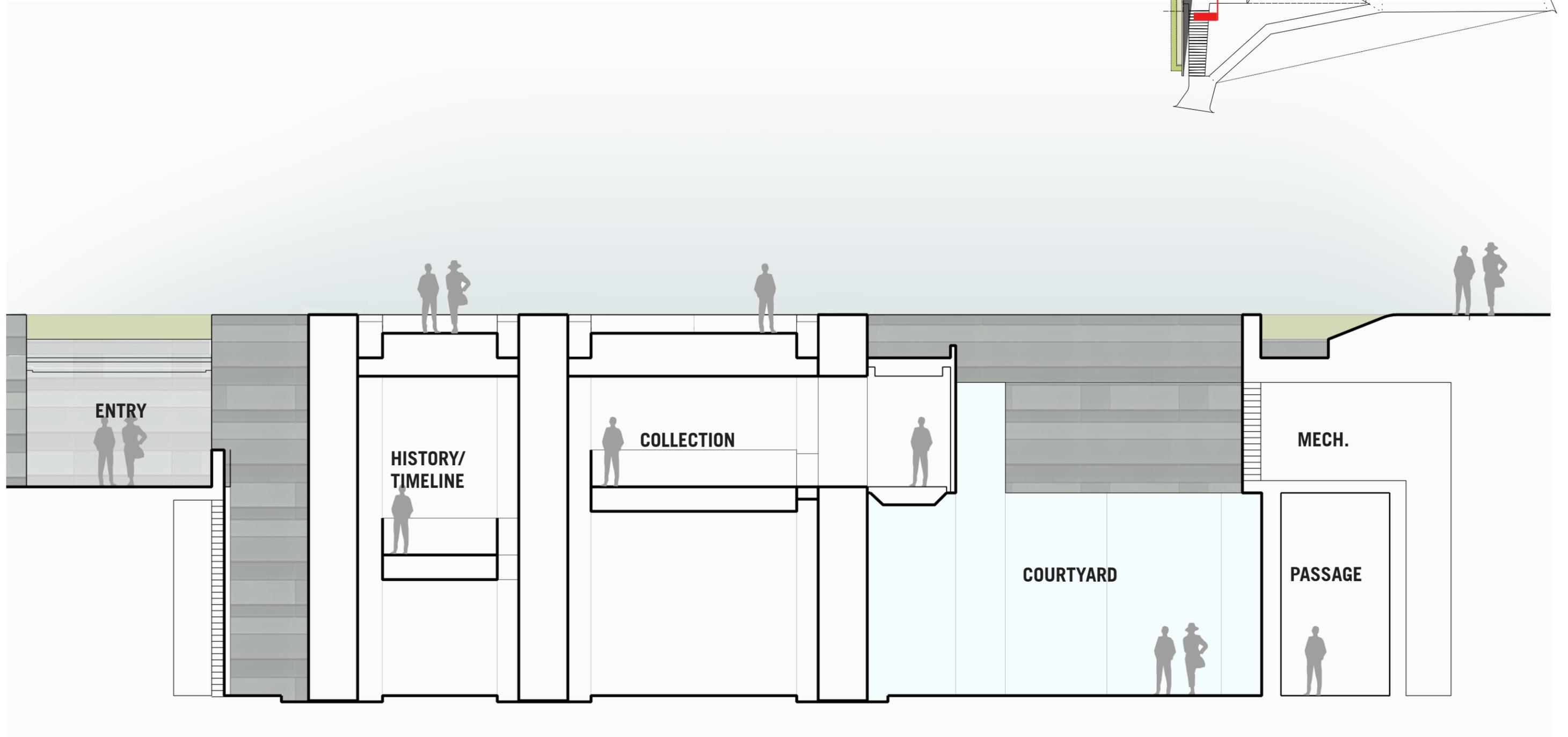
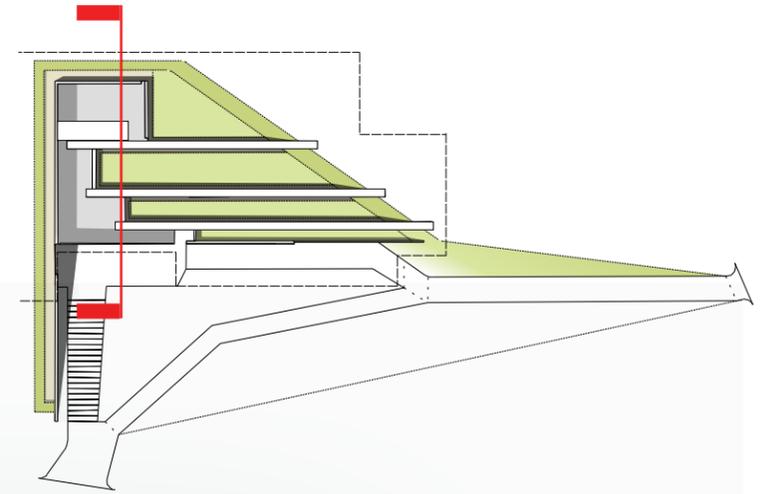


REVISED ROOF PLAN



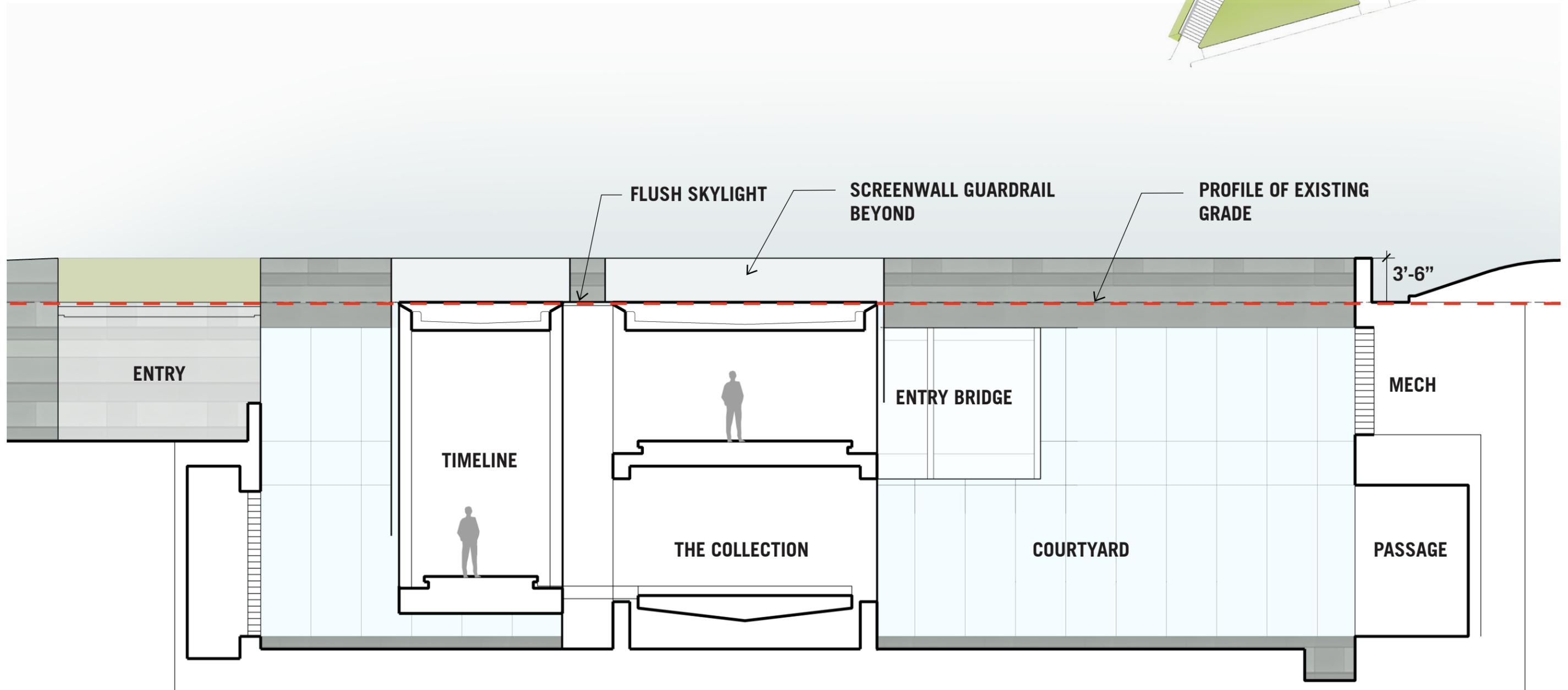
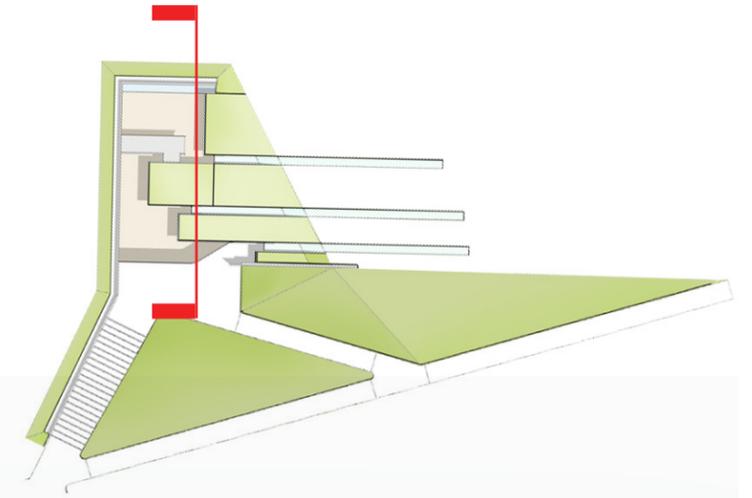
2007

2007 CONCEPT DESIGN REVIEW - East/West Section



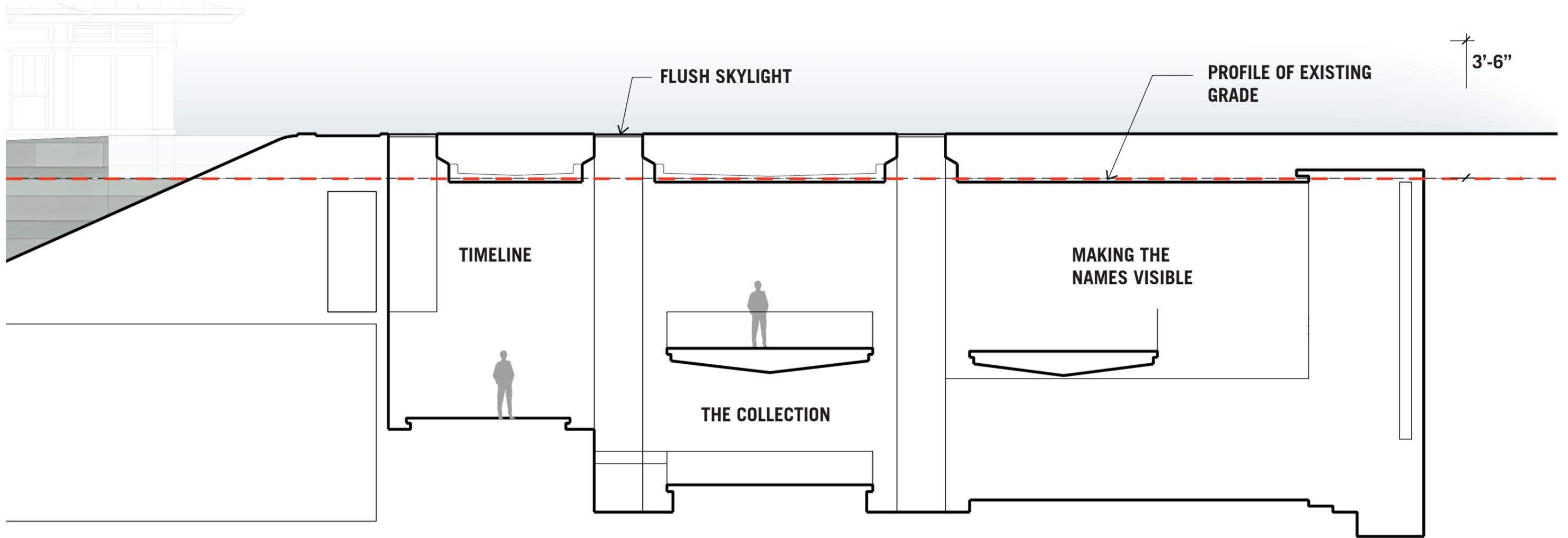
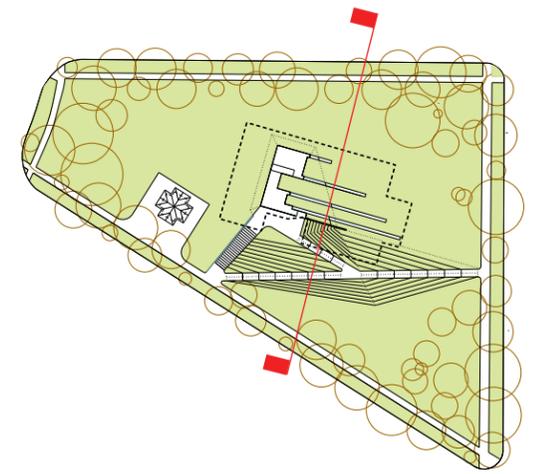
2009

REVISED EAST/WEST SECTION AT COURTYARD



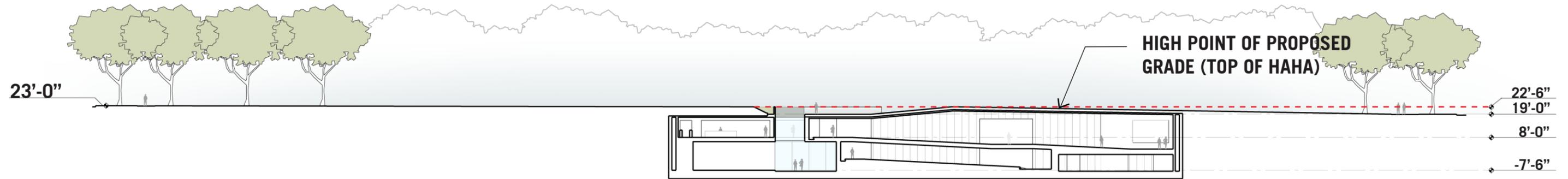
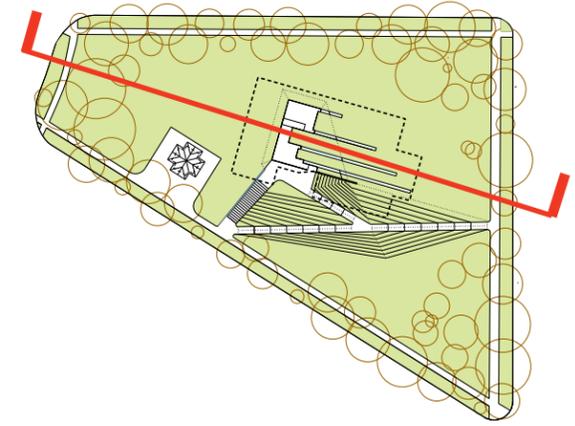
2009

REVISED EAST/WEST SECTION THRU BUILDING

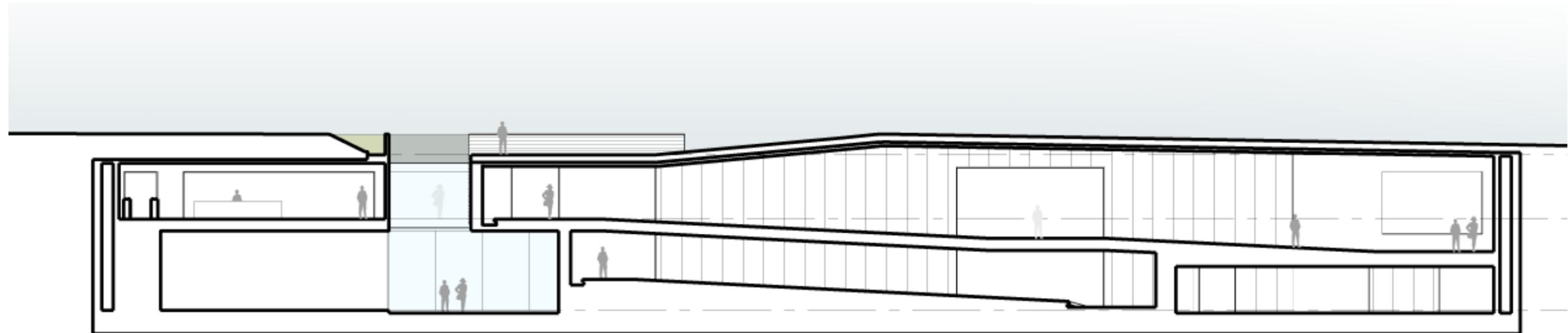


2009

REVISED NORTH/SOUTH SECTION AT COURTYARD

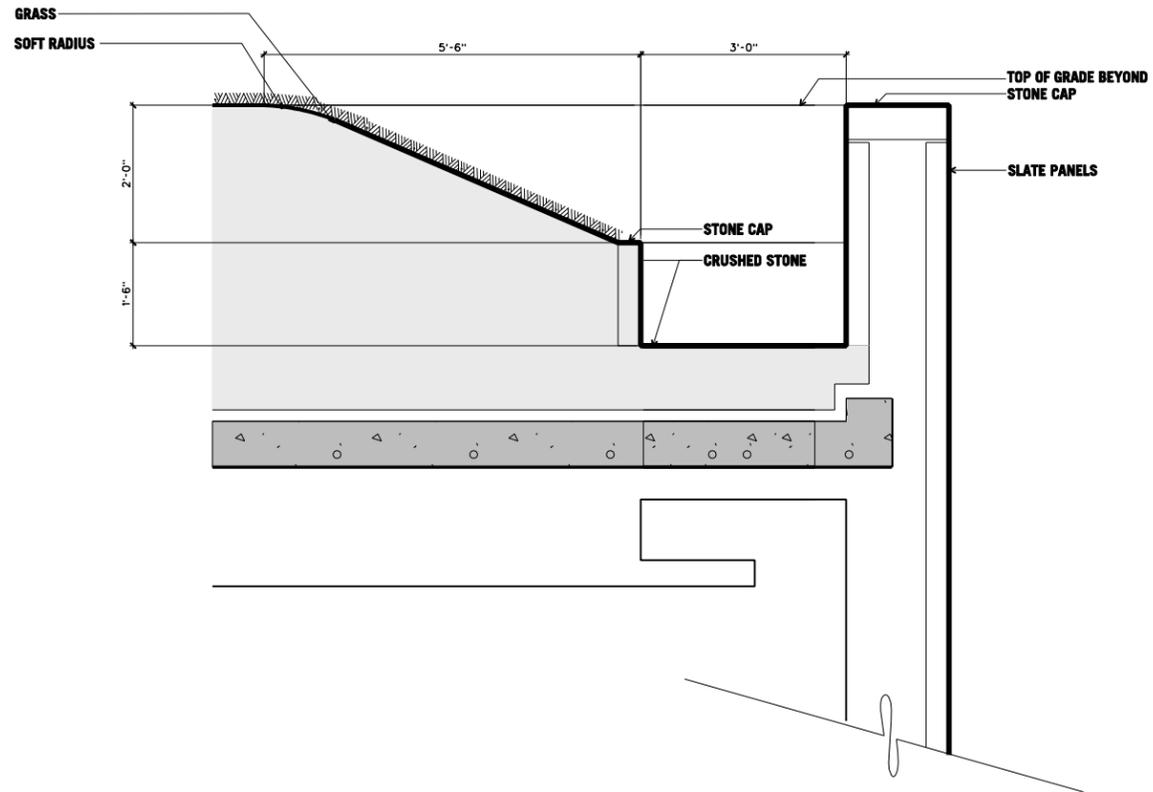
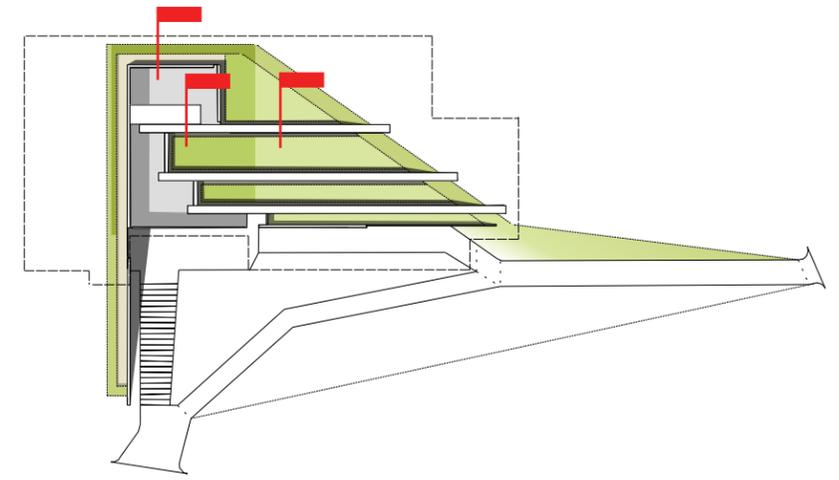


ENLARGED VIEW OF NORTH/SOUTH SECTION

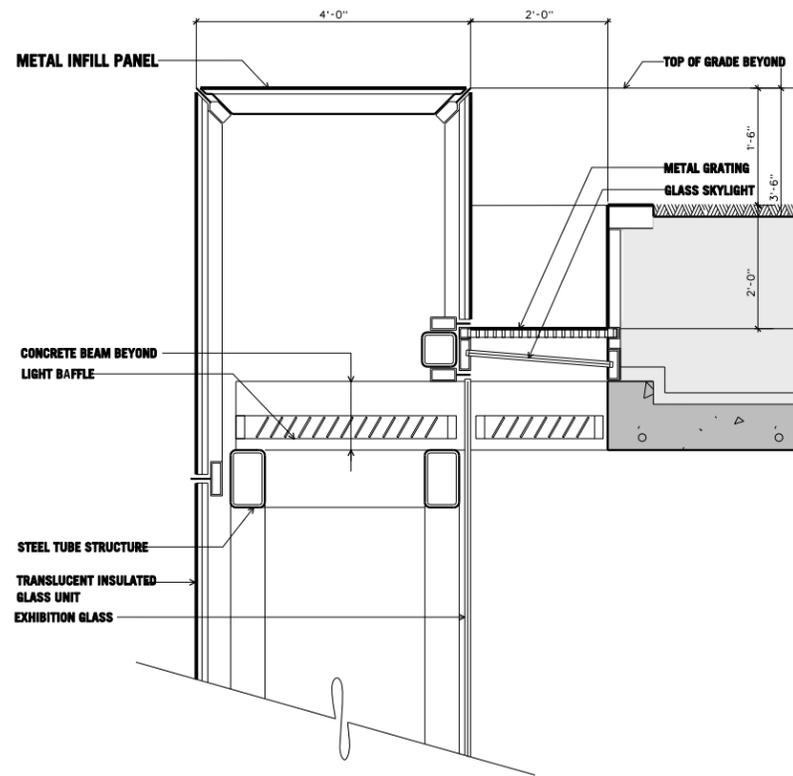


2007

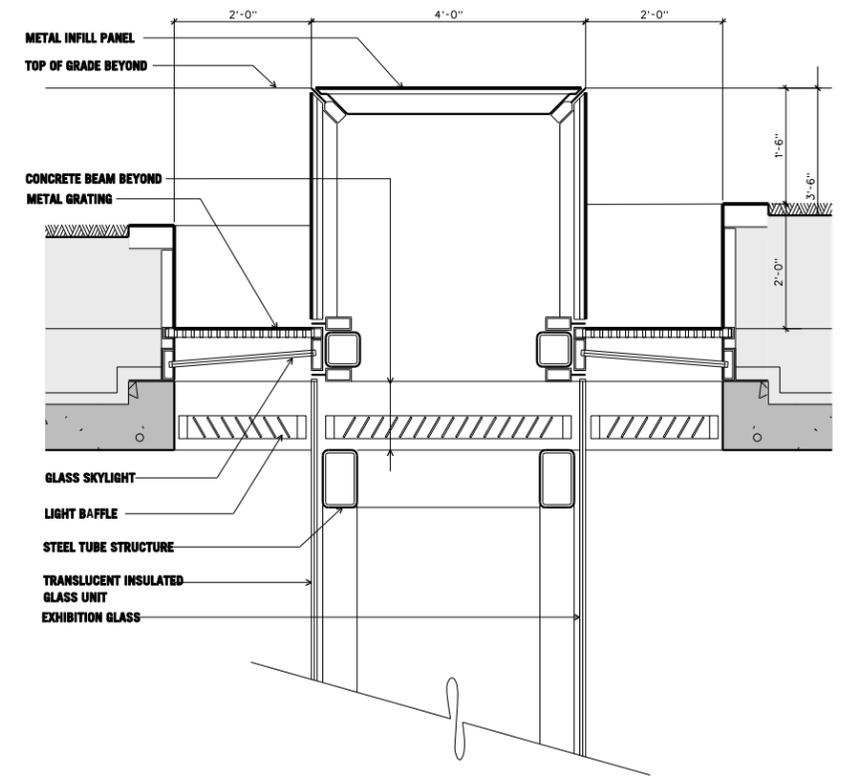
2007 CONCEPT DESIGN REVIEW - Section Details



Typical Ha-Ha Railing



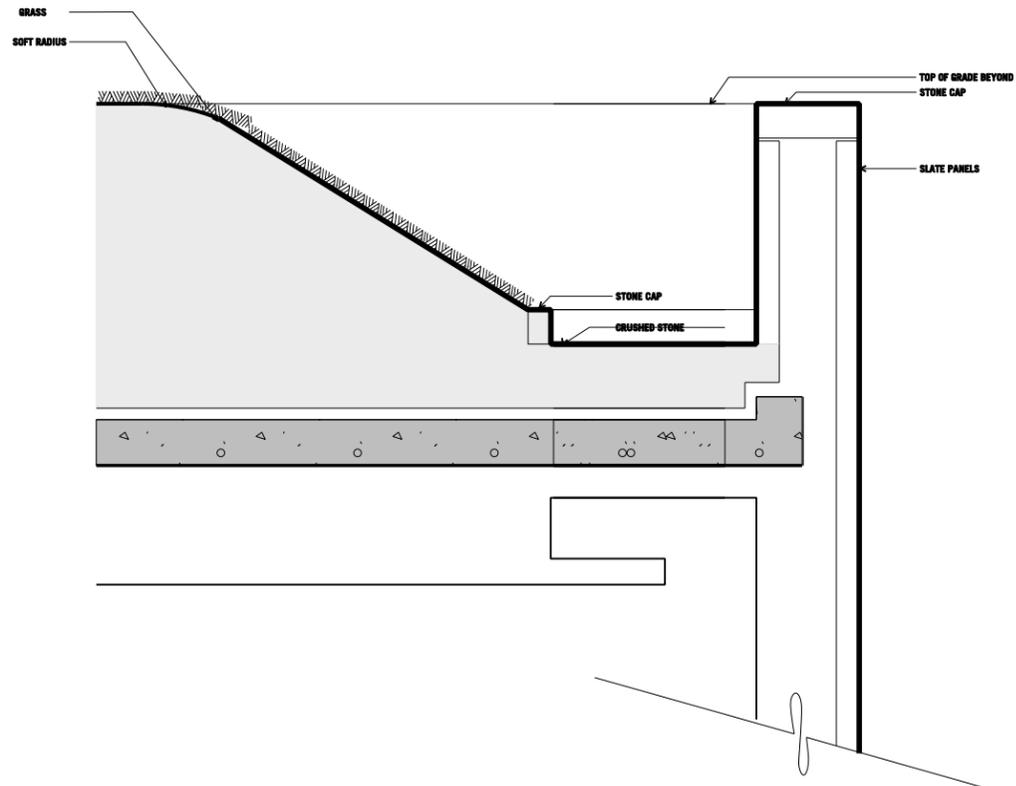
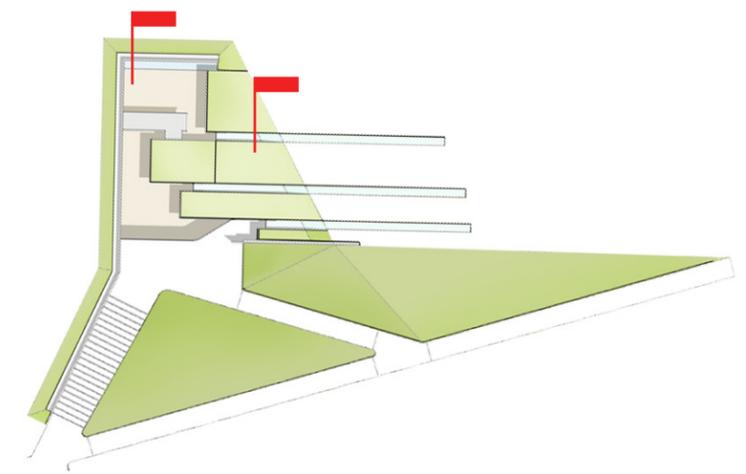
Typical Exhibit Wall/Ha-Ha Railing



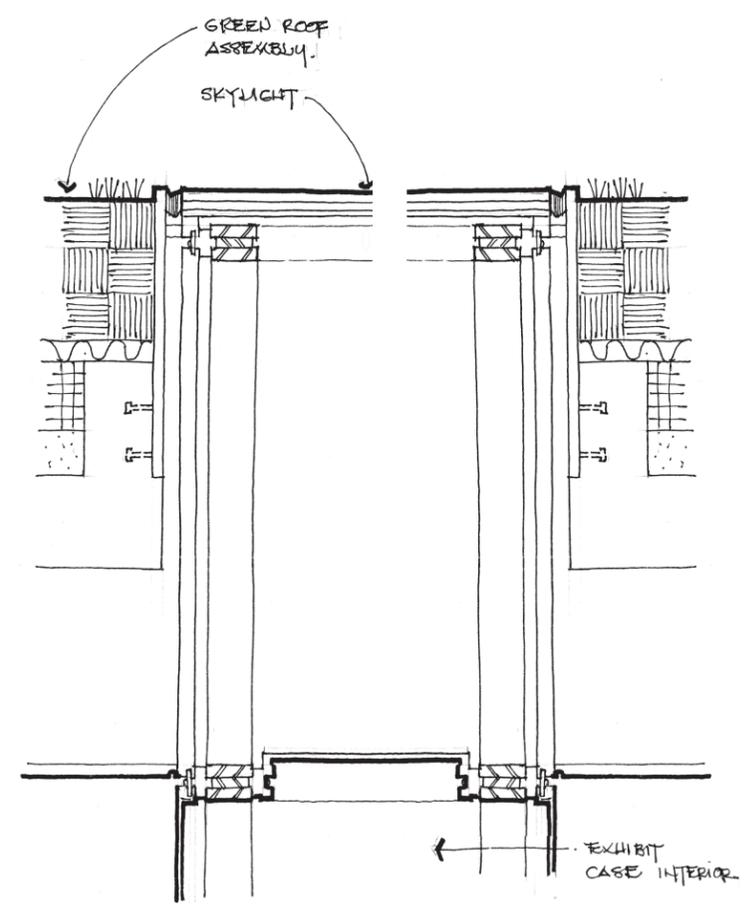
Typical Exhibit Wall/Skylight

2009

REVISED DETAIL SECTIONS

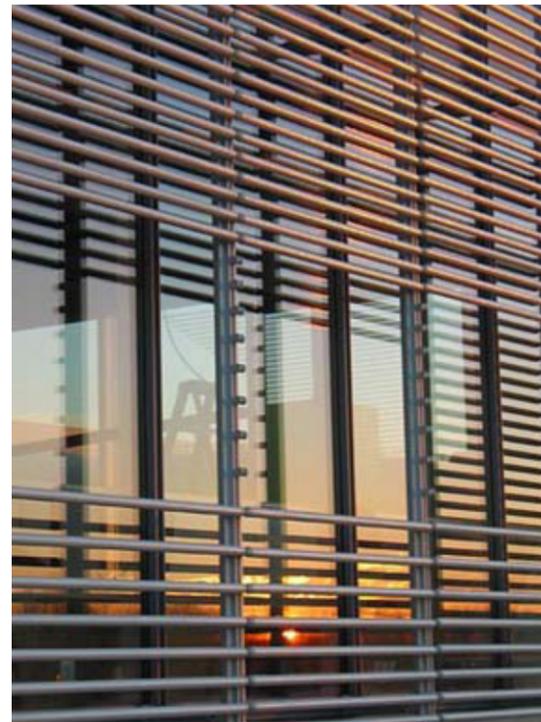
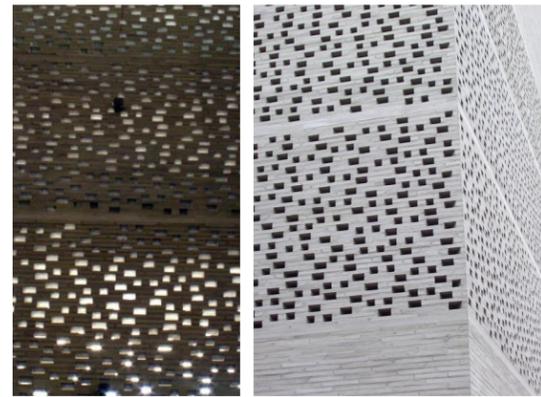


Revised Ha-Ha Railing



Flush Skylight Detail

SCREEN FACADE SECTION DETAIL



SCREEN WALL EXTENDS TO CREATE GUARDRAIL CONDITION AROUND COURTYARD

PLANTED ROOF

LINE OF CLOSURE - GLASS CURTAINWALL

SCREENWALL ACTS AS SOLAR SHADE AND PRIVACY SCREEN IN FRONT OF BUILDING FACE

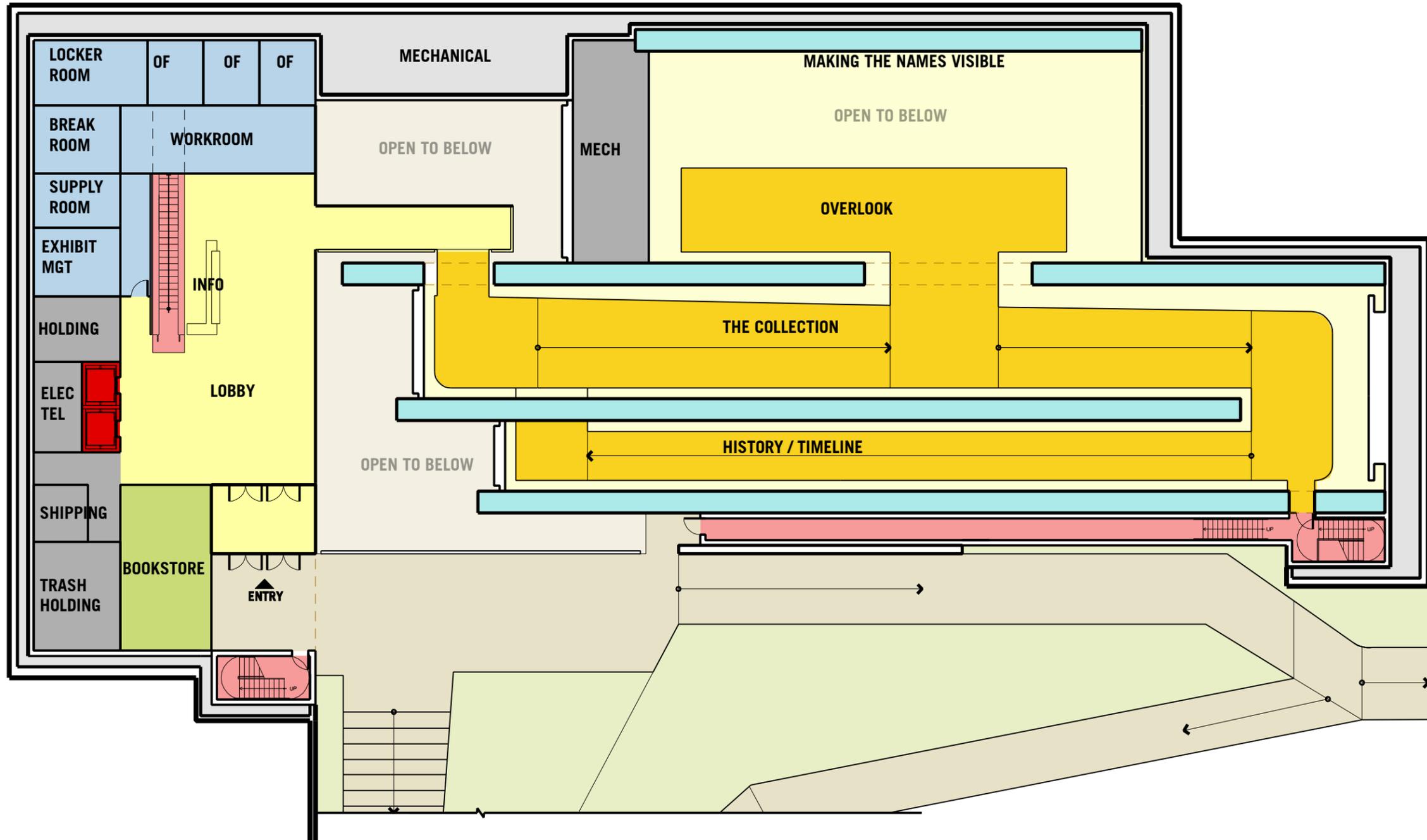
POSSIBLE SCREENWALL MATERIALS:

- PERFORATED METAL
- TERRA COTTA
- MESH

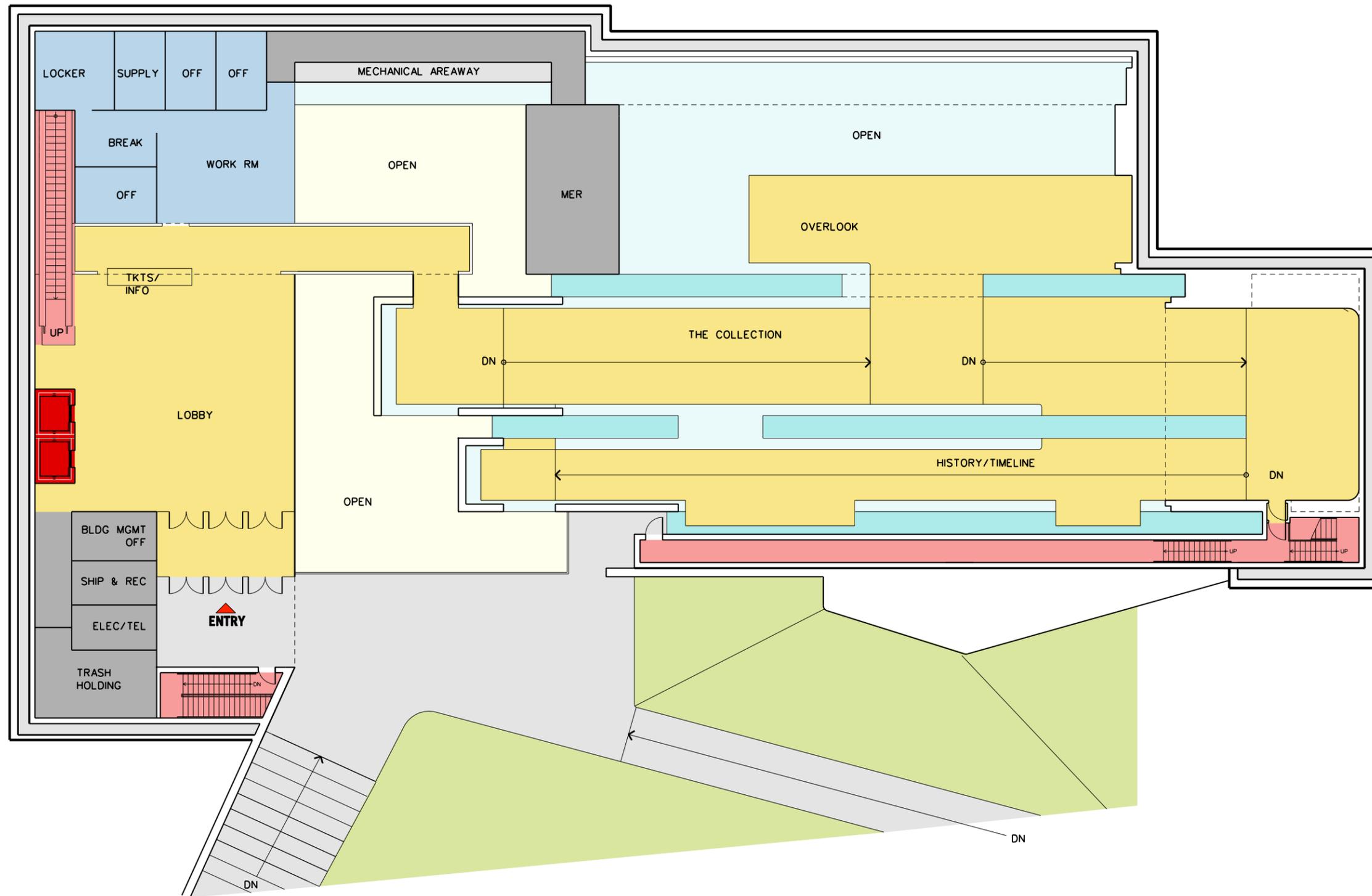


C. BUILDING PLANNING & SIZE

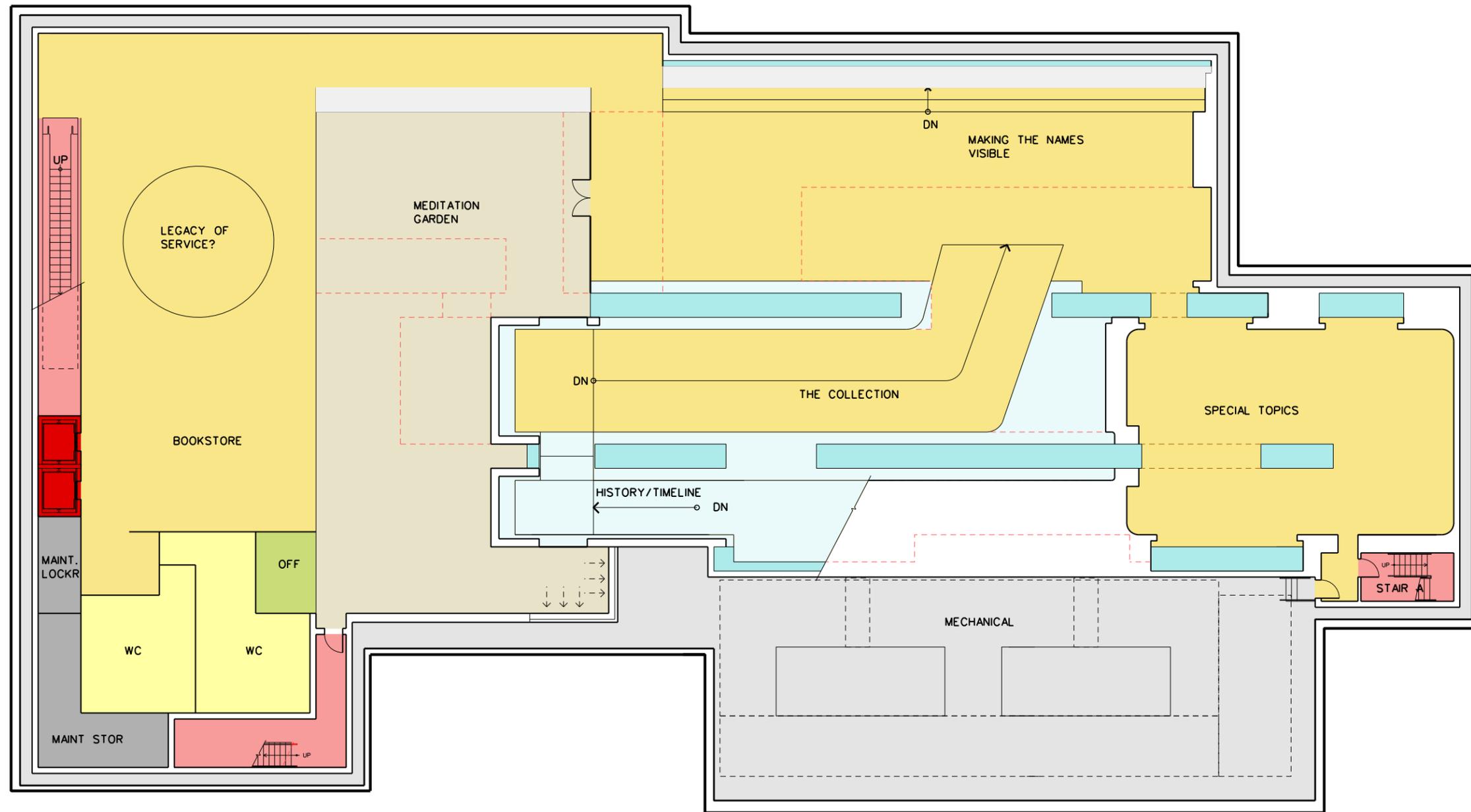
2007 CONCEPT DESIGN REVIEW - Upper Level Plan



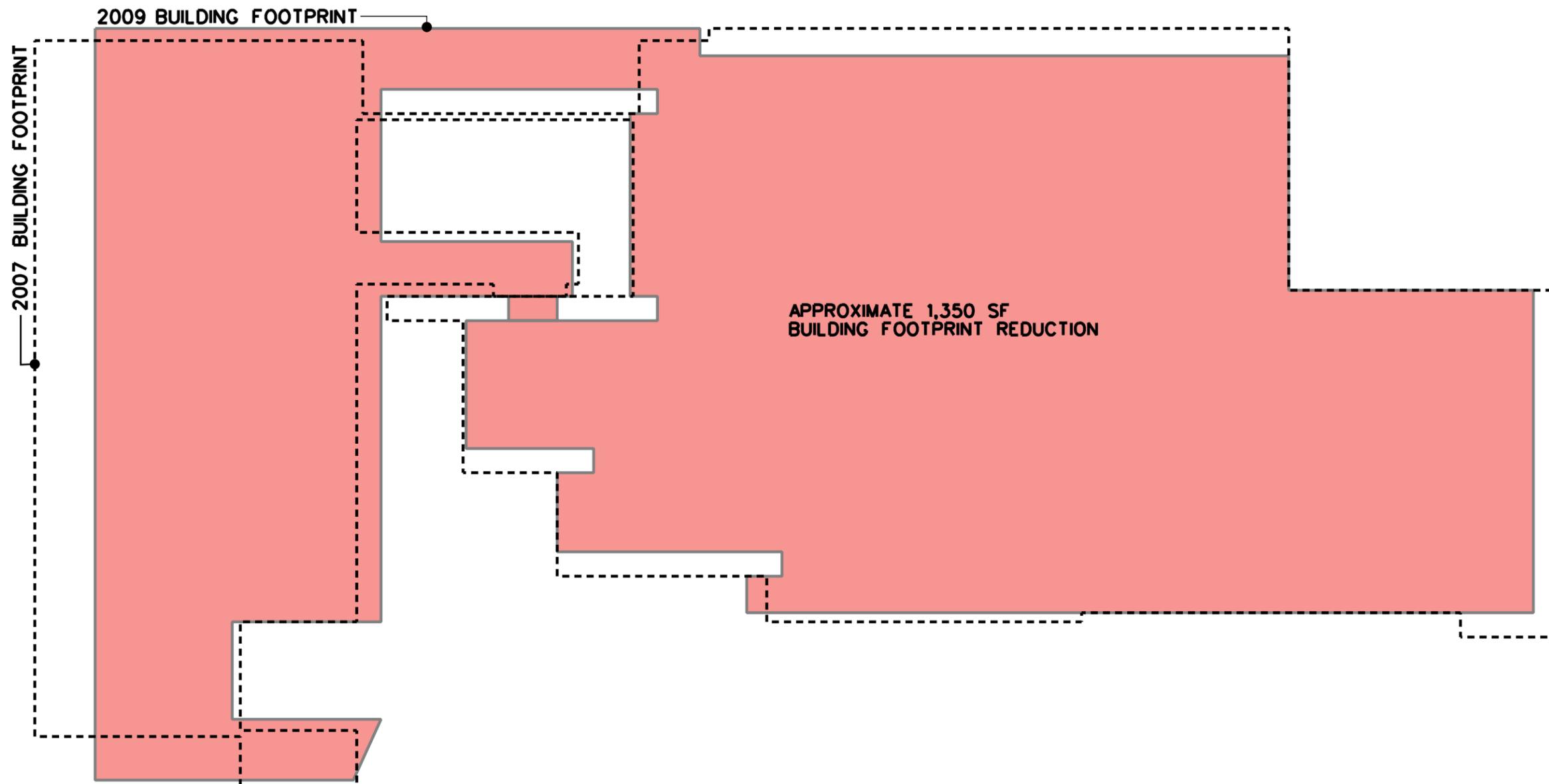
REVISED UPPER LEVEL PLAN



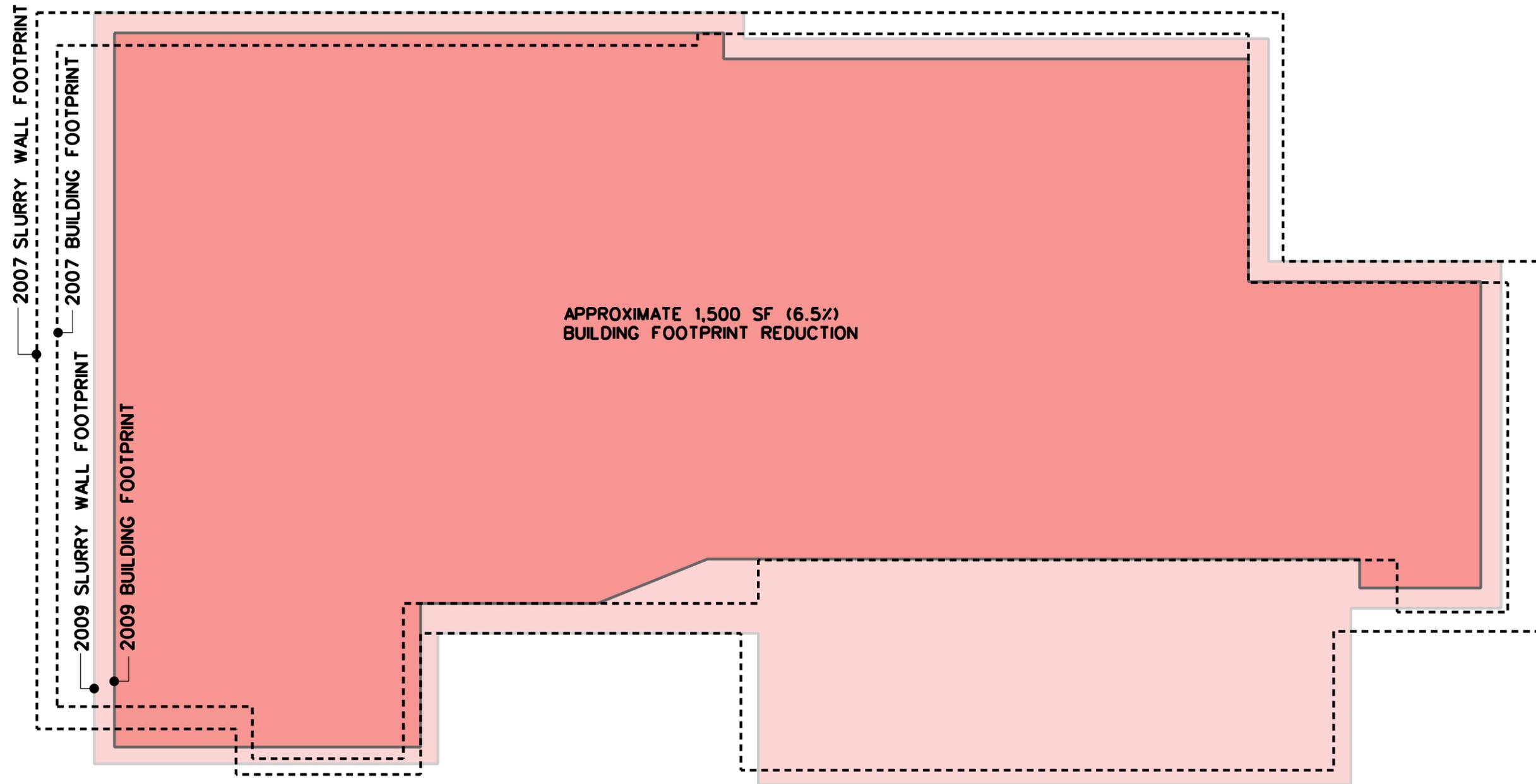
REVISED LOWER LEVEL PLAN



FOOTPRINT COMPARISON - UPPER LEVEL: 2007 VS. REVISED

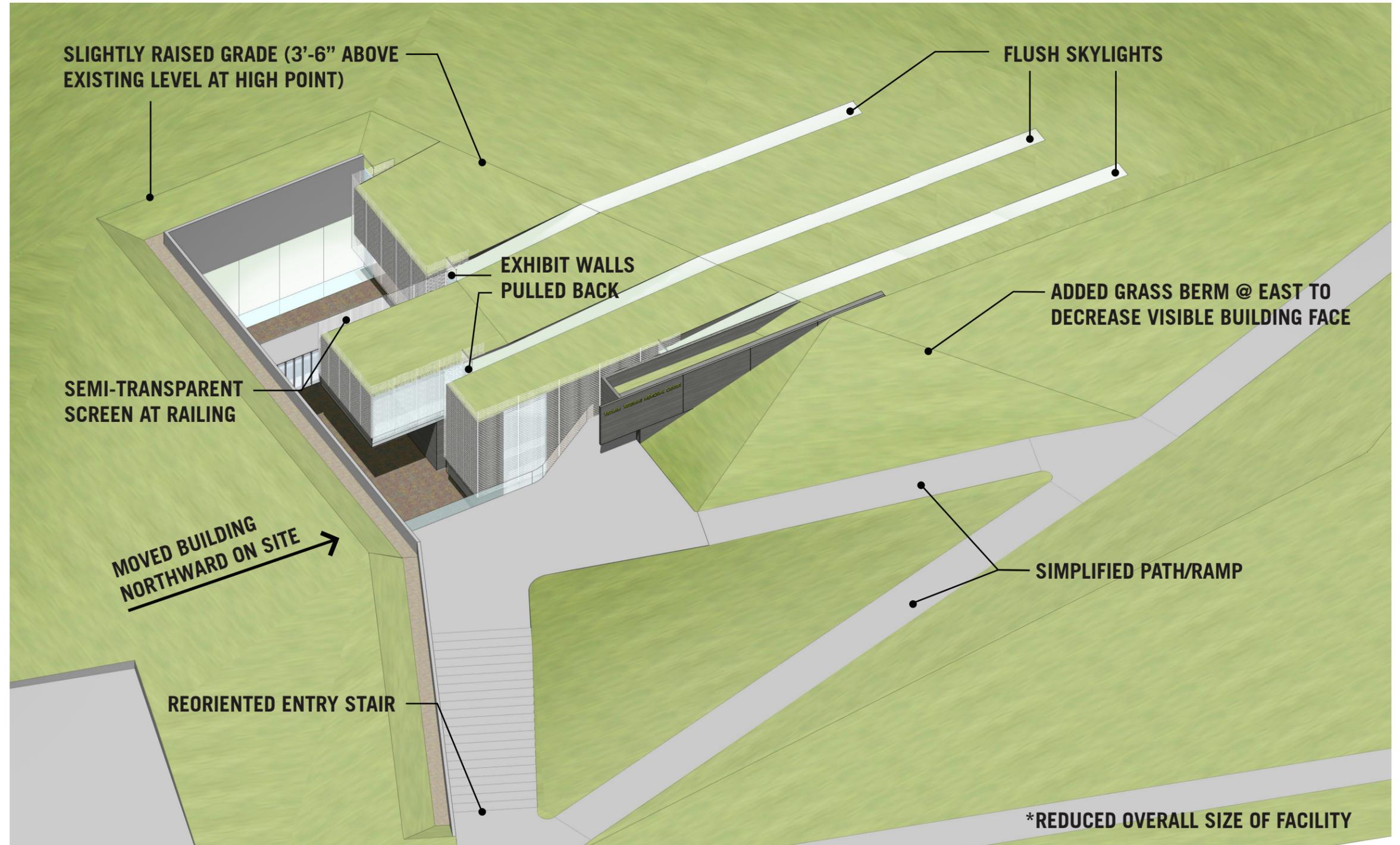


FOOTPRINT COMPARISON - LOWER LEVEL: 2007 VS. REVISED



D. SUMMARY

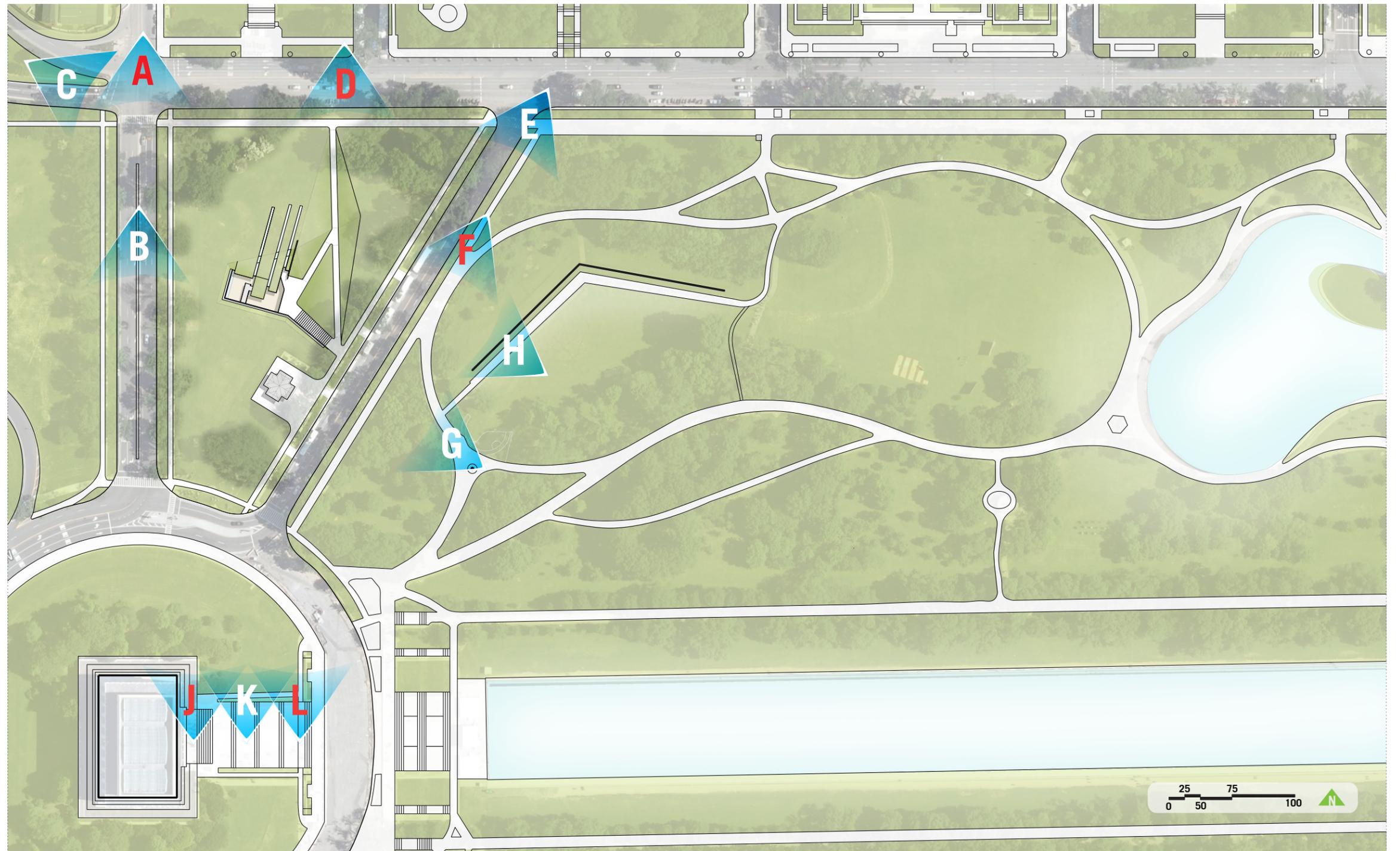
The combined adjustments to the design of The Vietnam Veterans Memorial Center are meant to address the concerns of the project's impact on the setting of the site while maintaining the overall concept and fulfilling the mission of the Center. Though the refinements are individually modest in nature, the overall effect is significant. The design team looks forward to continued feedback from the Commissions as well as the opportunity for ongoing work sessions with commission staff.



REVISED AXONOMETRIC VIEW

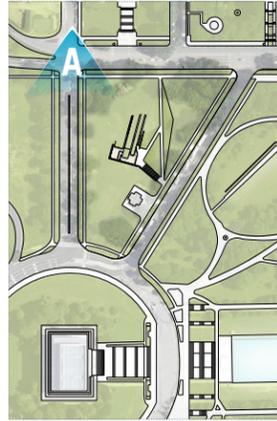
E. COMPARATIVE VIEW SIMULATIONS

To the best of the design team's ability, the following photo montages represent facsimiles of the proposed design in actual photographs from around the site. The view simulations juxtapose the original photo montages that were submitted in the Fall of 2007 with those that depict the latest design revisions to demonstrate and evaluate the improvements to the visibility of the building. An abbreviated set of views (indicated in the key in **RED**) from the most critical vantage points has been included in this study.

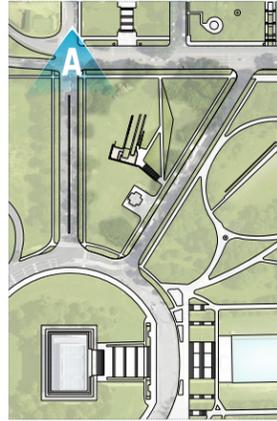


COMPARATIVE VIEW SIMULATIONS: 2007 NCP SUBMISSION & 2009 REVISION

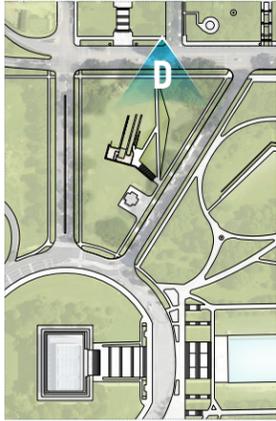
2007 NCP SUBMISSION VIEW A - CORNER OF 23RD STREET AND CONSTITUTION AVENUE LOOKING SOUTH



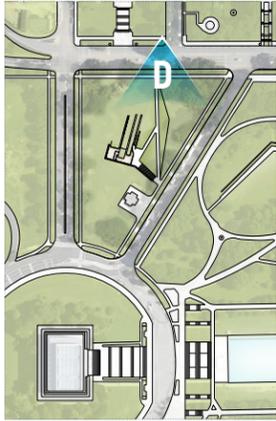
2009 REVISION VIEW A - CORNER OF 23RD STREET AND CONSTITUTION AVENUE LOOKING SOUTH



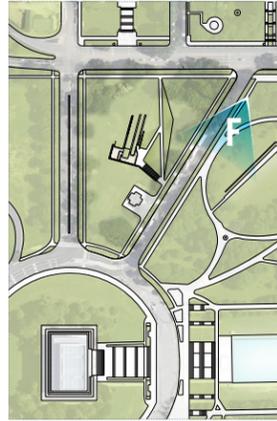
2007 NCPD SUBMISSION VIEW D - VIEW FROM CROSSWALK AT 22ND STREET AND CONSTITUTION AVENUE



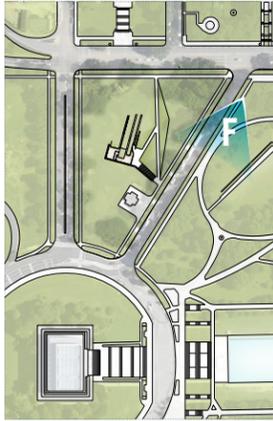
2009 REVISION VIEW D - VIEW FROM CROSSWALK AT 22ND STREET AND CONSTITUTION AVENUE



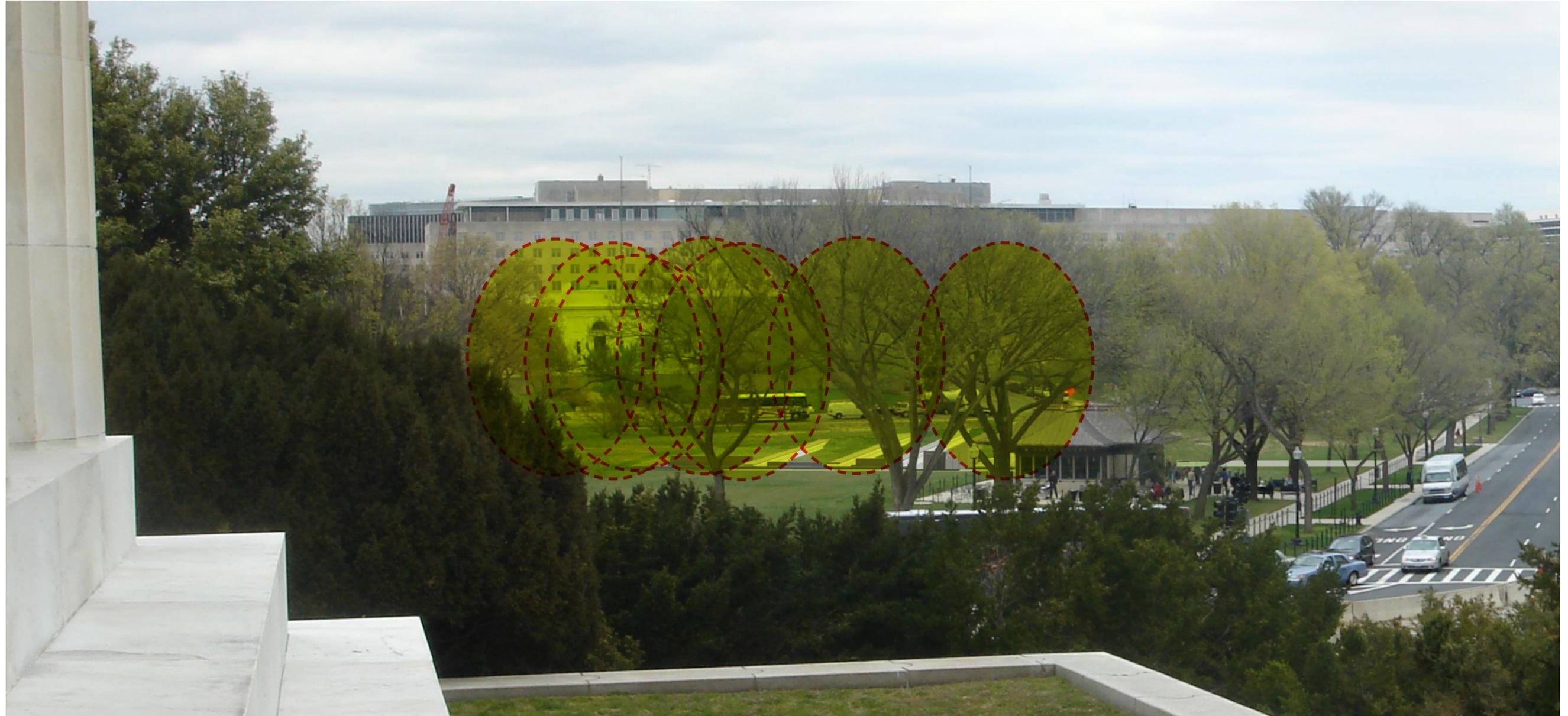
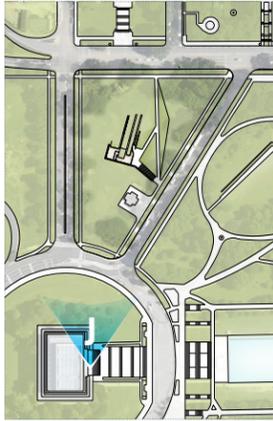
2007 NCPD SUBMISSION VIEW F - HENRY BACON DRIVE LOOKING SOUTH



2009 REVISION VIEW F - HENRY BACON DRIVE LOOKING SOUTH

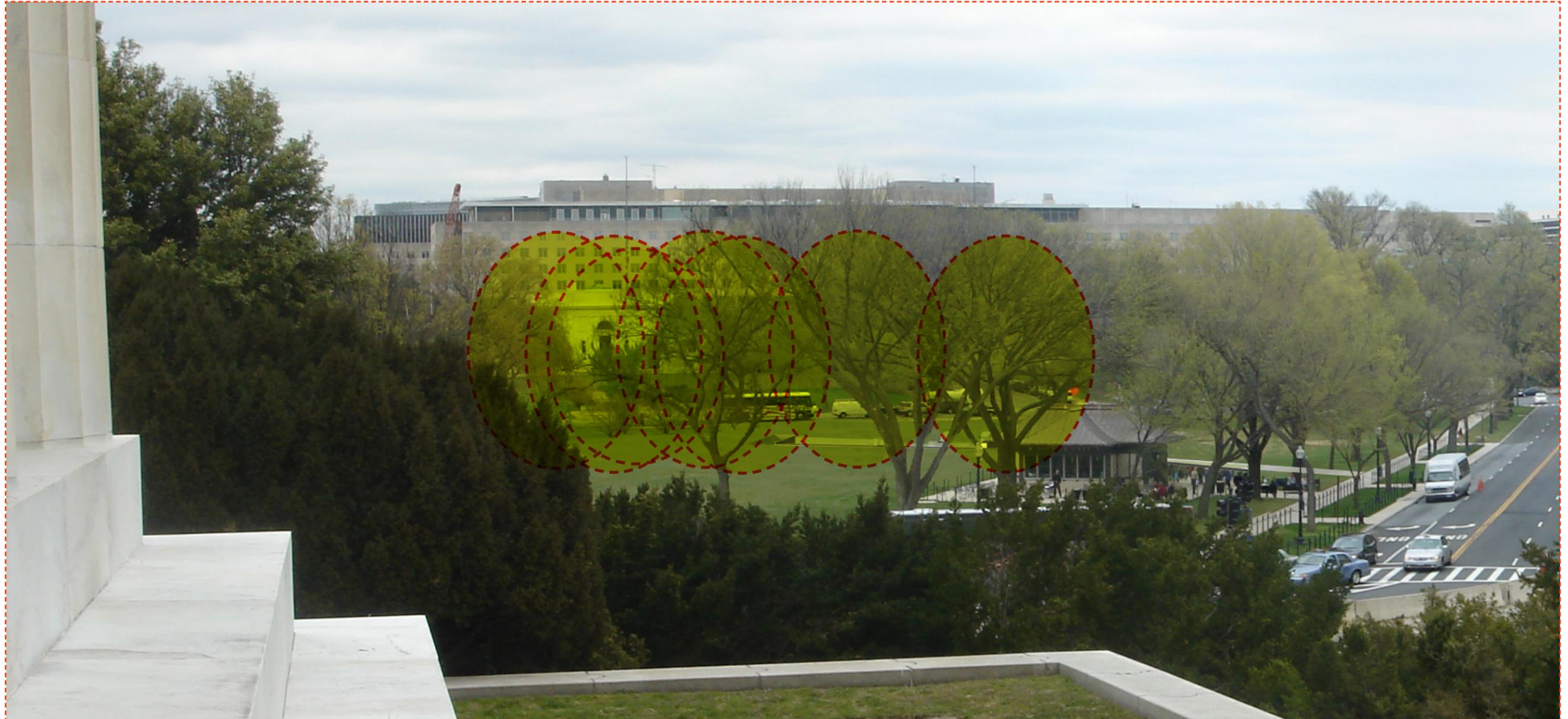
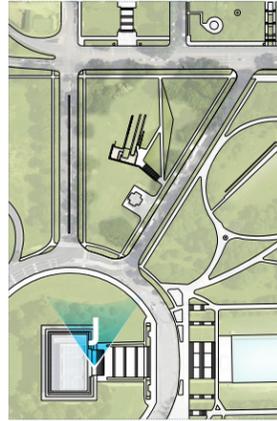


2007 NCPD SUBMISSION VIEW J - VIEW FROM THE TOP STAIR OF THE LINCOLN MEMORIAL LOOKING NORTH



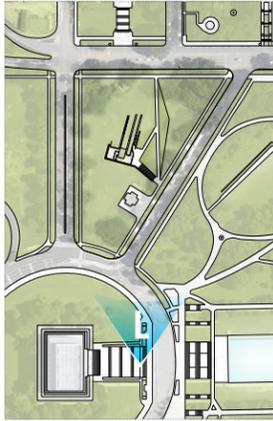
*NEW TREES INDICATED AS PER HISTORIC PLAN

2009 REVISION VIEW J - VIEW FROM THE TOP STAIR OF THE LINCOLN MEMORIAL LOOKING NORTH

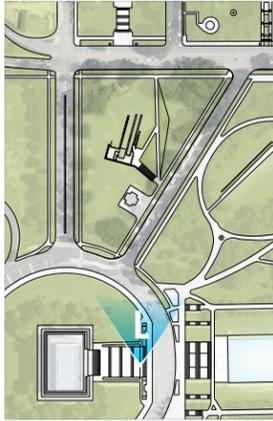


*NEW TREES INDICATED AS PER HISTORIC PLAN

2007 NCPC SUBMISSION VIEW L - VIEW FROM THE TOP STAIR OF THE LINCOLN MEMORIAL PLAZA LOOKING NORTH



2009 REVISION VIEW L - VIEW FROM THE TOP STAIR OF THE LINCOLN MEMORIAL PLAZA LOOKING NORTH



III. ADDITIONAL INFORMATION / AREAS OF FURTHER STUDY

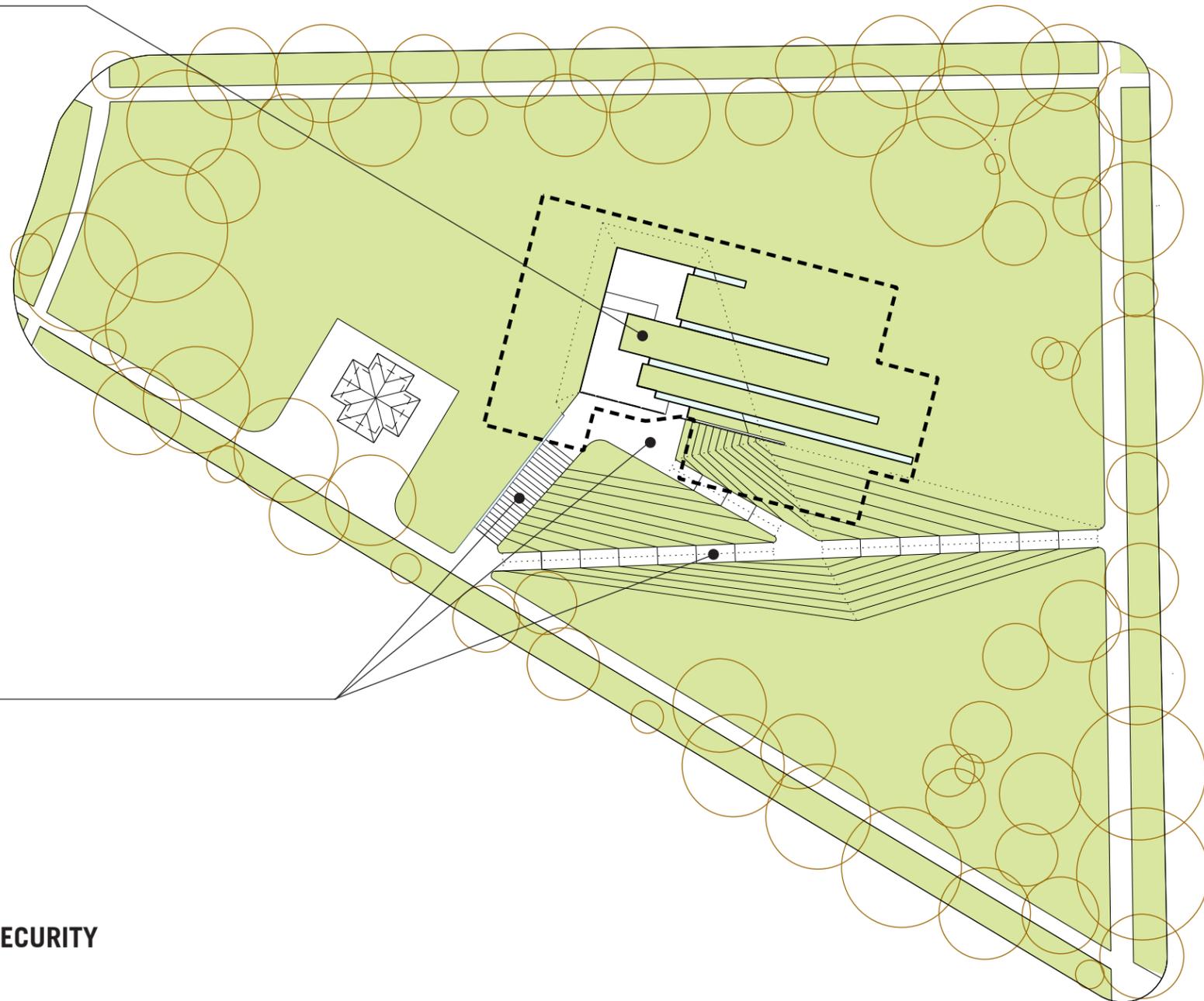
The design team has attempted to provide some response to the commissions request for additional information on various issues regarding The Center. At this stage of design, only a conceptual level of information is available. As the design progresses, and as the project is submitted for subsequent, more detailed Commission presentations, the requested information will become more and more specific. For now, the following have been provided:

- A. Two diagrams regarding street crossing, one depicting the existing crosswalk locations and the other suggesting the possible location of a midblock street crossing on Henry Bacon Drive. The design team believes that the issue of a midblock street crossing should be ultimately addressed through the National Park Service in discussion with the DC Department of Transportation.
- B. A diagram depicting the perimeter tree root zone, the approach ramps/stairs and the overall building footprint. A technical survey of the site, including the tree root zone per the National Park Service horticultural definition, is currently underway. The NPS specification of the critical root zone as a multiple of dbh and a sample specification describing tree protection standards are also included.
- C. A conceptual design narrative with respect to both interior building lighting and overall site lighting for public safety. Subsequent presentations to the commissions will detail an actual lighting design and include simulations of light levels through perspective renderings at various times of day and night.
- D. A diagram indicating the relative size of potential passive recreation activities and the available area for such activities on the site.
- E. A diagram indicating the location of 42” high guardrails and code-required handrails for pedestrian safety. The use of “ha-ha’s” and a slight raise in the level of existing grade reduces the visibility of the required rails from the perimeter of the site. The design team has had several preliminary meetings with the U.S. Park Police to assess the overall security needs of The Center. The Center is not currently categorized as a high threat target. As a result, no other perimeter security devices are anticipated.

DESIGN NARRATIVE FOR LIGHTING

INTERIOR BUILDING LIGHTING:

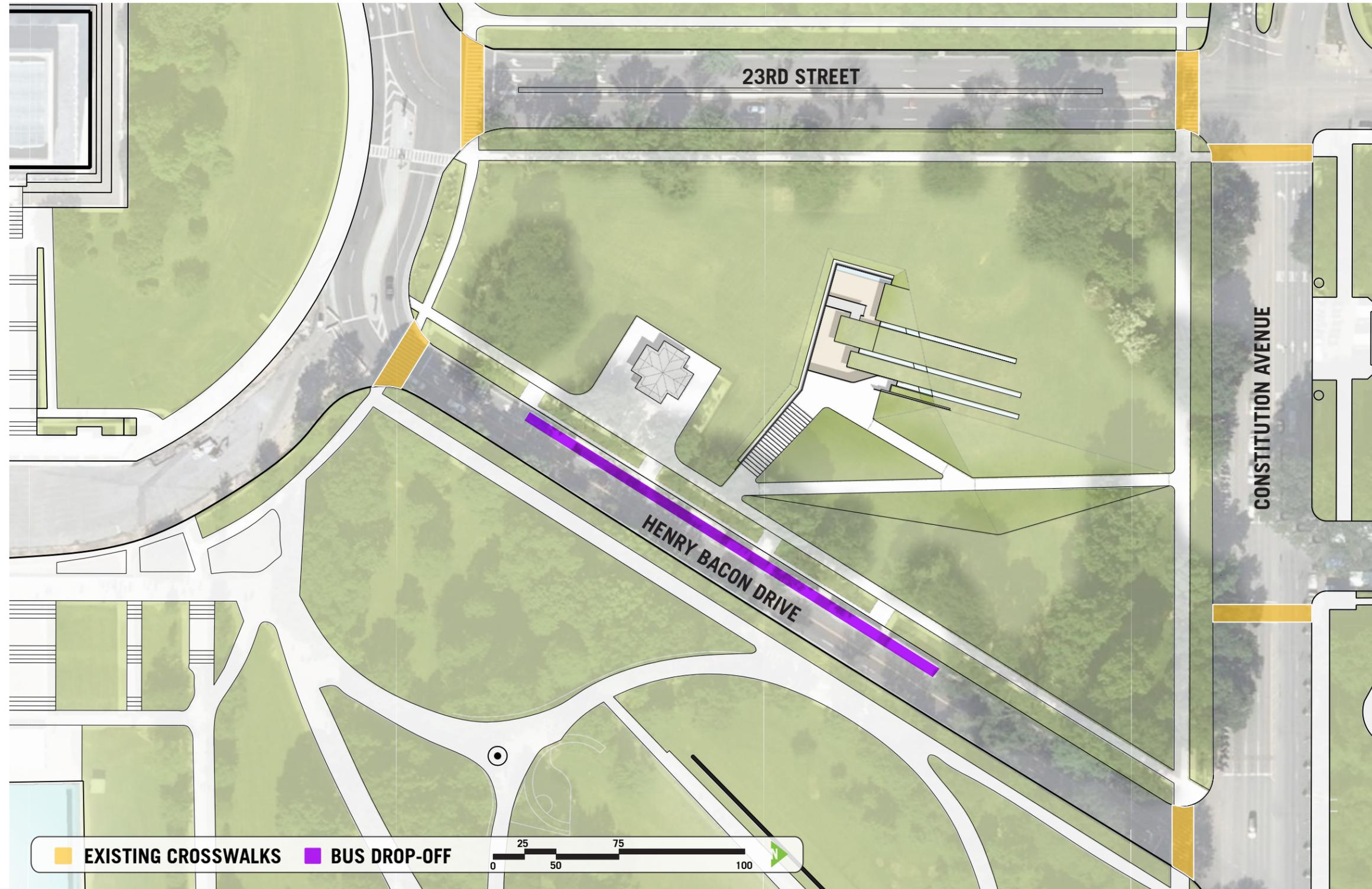
- BUILDING LIGHTING WITH NO VISIBLE SOURCES FROM SURROUNDING SITE
- PROGRAM TYPE AND EXHIBITS DO NOT REQUIRE HIGH INTERIOR AMBIENT LIGHT LEVELS
- LIGHT CONTROL DEVICES AT SKYLIGHTS (LOUVERS) WILL CONTROL INCOMING LIGHT LEVELS AS WELL AS LIGHT EMISSION
- REGULAR FACILITY HOURS WILL NOT REQUIRE BUILDING LIGHTING THRU THE EVENING



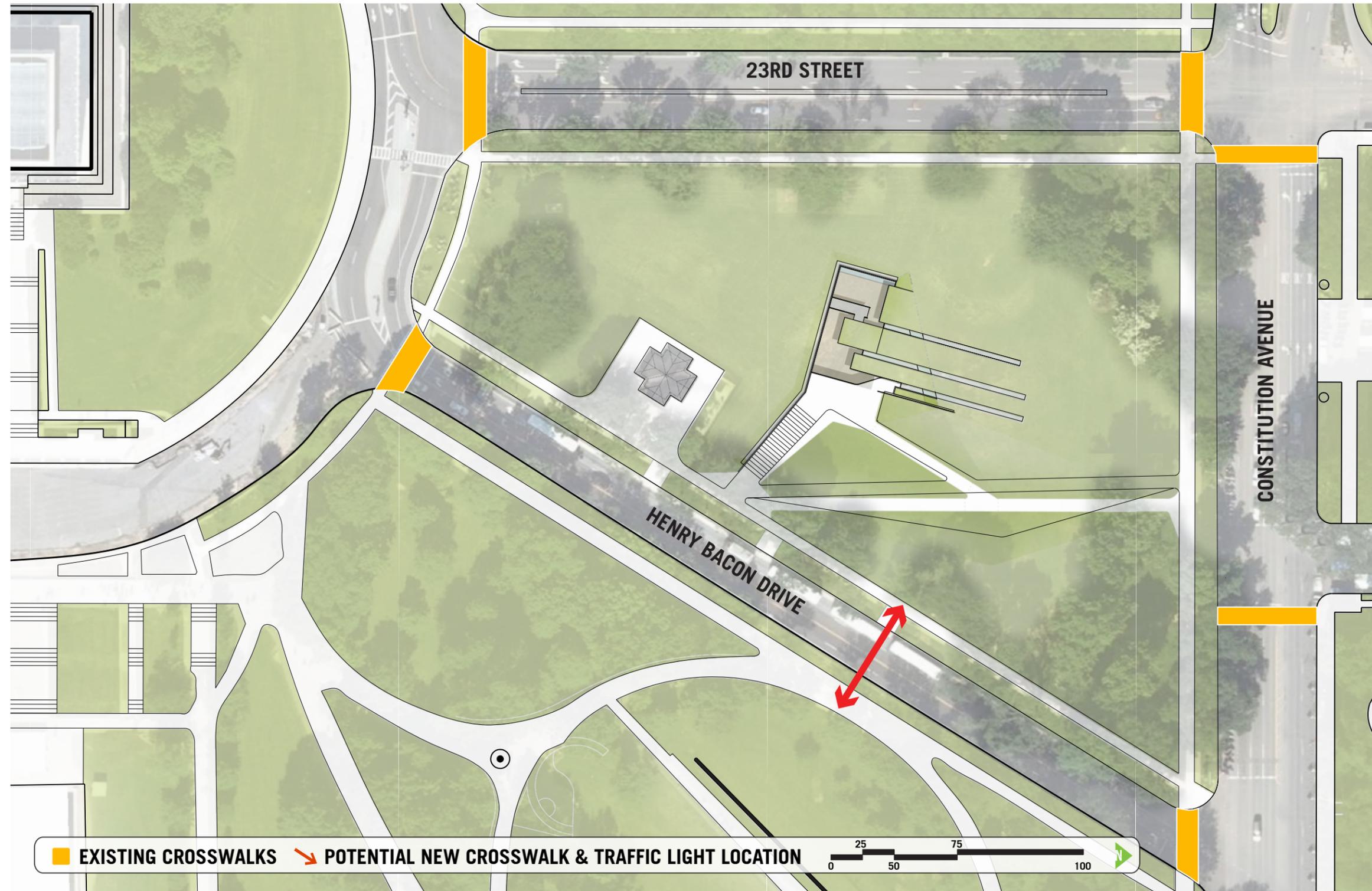
SITE LIGHTING FOR PUBLIC SAFETY:

- EXISTING PERIMETER LAMP-POST LIGHTING WILL PROVIDE SOME SITE AMBIENT LIGHT
- NEW INDIRECT LIGHTING WITH NO VISIBLE SOURCES FROM SURROUNDING SITE
- MINIMAL LIGHTING LEVELS AT STEPS AND ACCESS PATHS TO ENSURE PUBLIC SAFETY AND SECURITY
- MINIMAL LIGHTING LEVELS AT ENTRY AND COURTYARD TO ENSURE PUBLIC SAFETY AND SECURITY

EXISTING PEDESTRIAN CROSSING POINTS & BUS DROP OFF ZONE



ADDITIONAL OPPORTUNITIES FOR PEDESTRIAN CROSSING



***FURTHER DISCUSSION REQ'D WITH NPS & DC DOT**

CRITICAL ROOT ZONE



***SITE SURVEY IN PROGRESS**

National Park Service, National Capital Region: Guidelines for Tree Preservation

All trees shall be protected with a complete enclosure of an NPS approved protective fencing that encompasses the entire Root Protection Area. The Root Protection Area is defined as an area equal to a radius of 1.5 feet for each inch of trunk diameter measured 4.5 feet above the ground (ie: Diameter at Breast Height, dbh). Therefore, a 10 inch dbh tree will have a Root Protection Area equal to 15 feet from the main trunk in all directions.

The defined Limits of Disturbance shall be outside the Root Protection Area. Limited activity may take place within the Root Protection Area with the expressed permission of the National Park Service in areas determined to be safe from damage. When the NPS approves work within the Root Protection Area, the following conditions shall be met:

1. Work shall be confined to the smallest possible area and accomplished as quickly as possible. The work area and time frames for commencing and completing work shall be approved by the NPS before any construction activities begin.
2. No excavations can be conducted in the Root Protection Area without first root pruning the affected area(s). Areas to be root pruned, time frames, equipment to be used to perform root pruning shall be approved by the NPS. Excavations that will leave roots exposed for more than 24 hours may require additional mitigation to prevent erosion and root desiccation.
3. The area not involved with the principle work shall be fenced and/or barricaded as directed by the NPS.
4. At the completion of this work the entire Root Protection Area shall be secured with a complete enclosure of protective fencing.
5. All trees surrounding the site will be monitored during construction for health and stress by NPS Certified Arborists who possess technical competence through experience and related training to provide for the care of the trees impacted by construction activities. If so determined by the NPS, the implementation and execution of additional mitigation in accordance with accepted arboricultural industry standards shall be performed. Mitigation may include but is not limited to pruning, cabling/bracing, fertilization, treatment with endo and ecto mycorrhizal fungi and root bio-stimulants, aeration and mulching of the root zones to assist trees in overcoming stress due to construction impacts.

The contractor will be held responsible for ensuring that all work including, the storage of materials and equipment, the parking of vehicles, and all other operations in connection with construction is confined to the defined Limit of Disturbance. Unauthorized trespasses into the Root Protection and/or cutting or damage to trees will be subject to liquidated damages in accordance with the Guide for Plant Appraisal (9th edition, 2000) authored by the Council of Tree and Landscape Appraisers and the Mid-Atlantic Tree Species Rating Guide developed by the Mid-Atlantic Chapter of International Society of Arboriculture. The 2000 value is \$42.50 per cross sectional square inch putting a base value for a 32" "specimen" elm at \$34,600.

The following is how these guidelines have been translated into a specification under SCOPE.

WORK AREA:

Contractor shall confine his work, the storage of materials and equipment, the parking of vehicles, and all other operations in connection with this contract to the specified work areas approved by the COR. The Contractor shall not permit heavy equipment or vehicles or the stock piling of heavy materials off hard surface roads without the expressed permission of the COR. Limited activity may take place within the root protection area with the expressed permission of the COR in areas determined to be safe from excessive damage. The root protection area is defined as an area equal to a radius of 1.5 feet for each inch of diameter at breast height (dbh) (ie: a 10 inch dbh tree will have a root protection area equal to 15 feet from the main trunk in all directions). All damage resulting from such operations shall be repaired to its original condition or to the satisfaction of the COR at no additional cost to the Government.

RESPONSIBILITY REGARDING PLANT MATERIALS

The contractor shall preserve and protect all existing trees, and shrubs, and grass areas on or adjacent to the work area which do not reasonably interfere with work. The contractor shall be responsible for all unauthorized cutting or damage to trees and shrubs, including damage due to careless operation of equipment, stockpiling of materials or tracking of grass and other surfaced areas by equipment. Unauthorized trespasses into the Root Protection and/or cutting or damage to trees will be subject to liquidated damages in accordance with the Guide for Plant Appraisal (9th edition, 2000) authored by the Council of Tree and Landscape Appraisers and the Mid-Atlantic Tree Species Rating Guide developed by the Mid-Atlantic Chapter of International Society of Arboriculture. The 2001 value is \$42.50 per cross sectional square inch putting a base value for a 32" "specimen" elm at \$34,600.

The following is how these guidelines have translated into a specification under EXECUTION.

TREE PROTECTION FENCING

- A. The work to be performed under this section consists of the installation of fencing and/or hardwood mulch to protect trees from construction and/or visitor use activities.
- B. Unless indicated otherwise by the COR, the area to be protected shall be an area equal to a radius of 1.5 feet for each inch of diameter at breast height (dbh). Therefore, a 10-inch dbh tree would require protection 15 feet from the trunk in all directions.

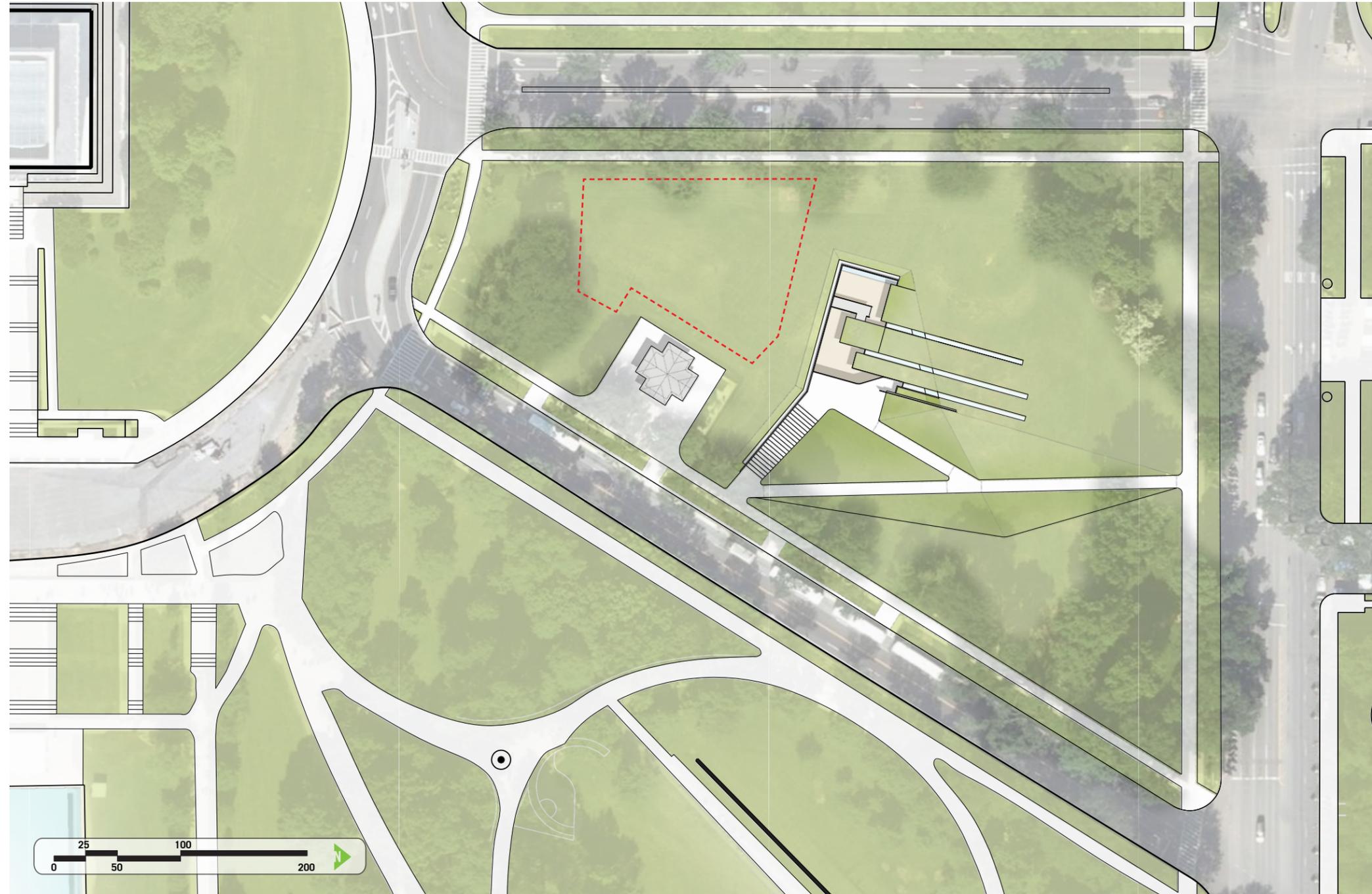
3.10.2 Materials

- A. Stakes: Shall be 2" steel U channel posts a minimum of 5 1/2 ft. in length or 2 x 2 " hardwood stakes 6' in length.
- B. Fencing: Shall be 4-foot high wooden slat fencing
- C. Wire: Shall be 12 gauge-annealed zinc coated wire
- D. Mulch: Shall be shredded hardwood mulch derived from recycled wood products and yard waste, aged, dark brown to black in color, have a particle size not to exceed 1/2 x 6 inches, be neutral pH, and free of sticks, stones, clay or any other matter injurious to plant growth.

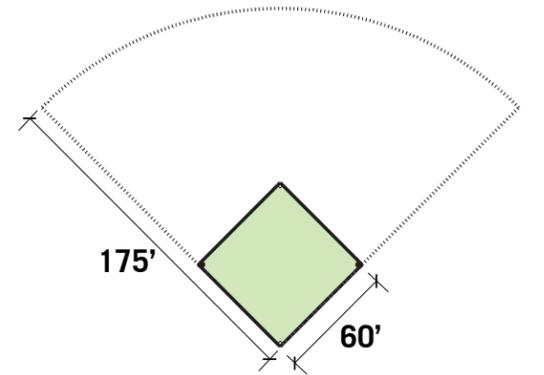
3.10.3 Execution

- A. Installation of Fence: A complete circular enclosure of fencing shall be erected around the defined root protection area. Steel posts shall be driven along the perimeter of the area 10-ft. on-center a minimum of 18" into the ground. Secure fencing to the fencing stakes with wire threaded around the stake and slat at the lowest and highest wires of the fencing and pulled beyond the fencing stake at least 1 foot. Both ends of the wire shall be wrapped around the stake twice and twisted back on itself with excess wire cut off.
- B. Spreading Mulch: If so directed mulch shall be placed to a loose measurement of 3 inches (16 cubic yards per 1000 square feet) to uniformly cover the entire protection area. No mulch shall be applied within 2 ft. of the trunk.
- C. Removal of Fencing and Mulch: When work has progressed to the point that these areas are no longer in need of protection as determined by the COR all fencing, stakes, wire, and mulch shall be removed and disposed of off site at the expense of the contractor.

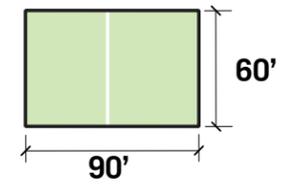
RECREATIONAL ACTIVITY OPPORTUNITIES



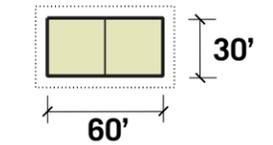
LITTLE LEAGUE BASEBALL



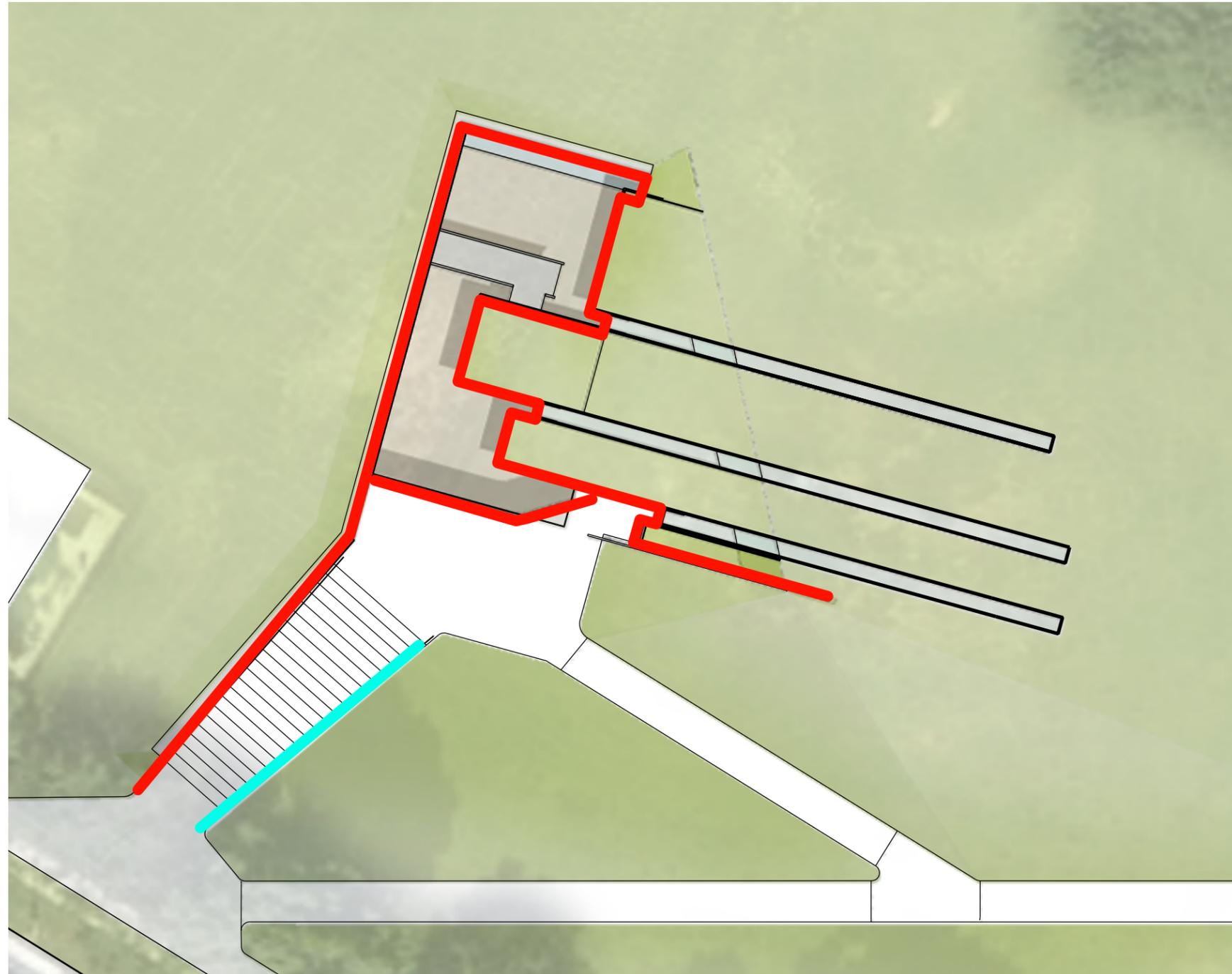
SMALL SIDED SOCCER FIELD



VOLLEY BALL



GUARDRAIL DIAGRAM



■ GUARDRAIL **■ HANDRAIL**