

PRESENTATION TO
SECTION 106 CONSULTING PARTIES

SEPTEMBER 29, 2006

AGENDA

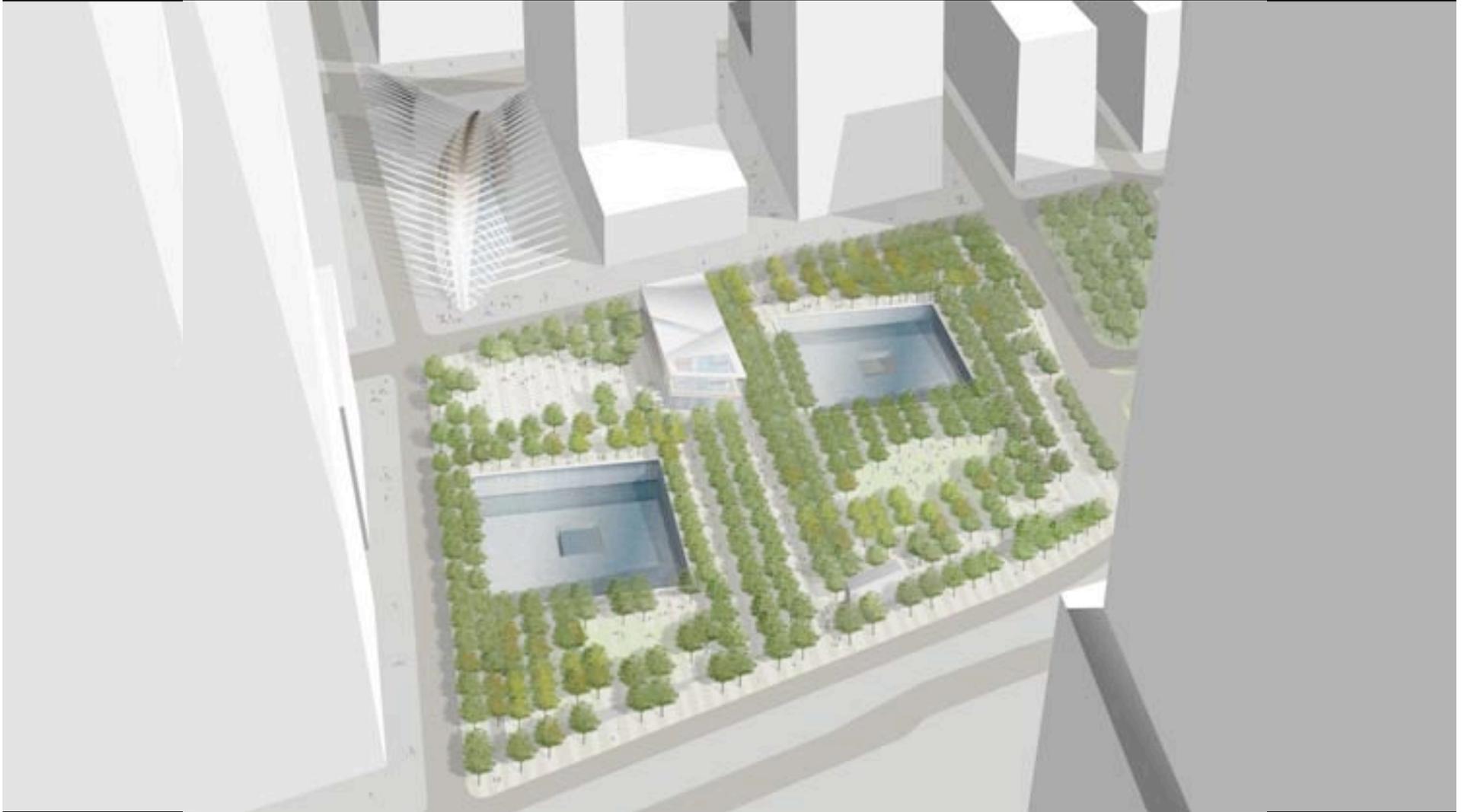
1. Welcome
2. Review of Agenda
3. Museum Experience – WTCMF
4. Memorial/Museum Design Update – DBB
 - a. North and South Tower Plans
 - b. Footings
5. Access Considerations – DBB
 - a. Slurry Wall
 - b. Perimeter Box Beam Column Remnants
 - c. Consultation
6. Site Status – DBB
 - a. Conditions Survey Status
 - b. Footprint Slab Remnant
 - c. Construction Update
7. Vesey Street Stair Remnant Update – PANYNJ
8. Artifacts Update – PANYNJ
9. Next Steps

Exhibition Sequence

Building the Memorial and Museum



Aerial View of Memorial Quadrant



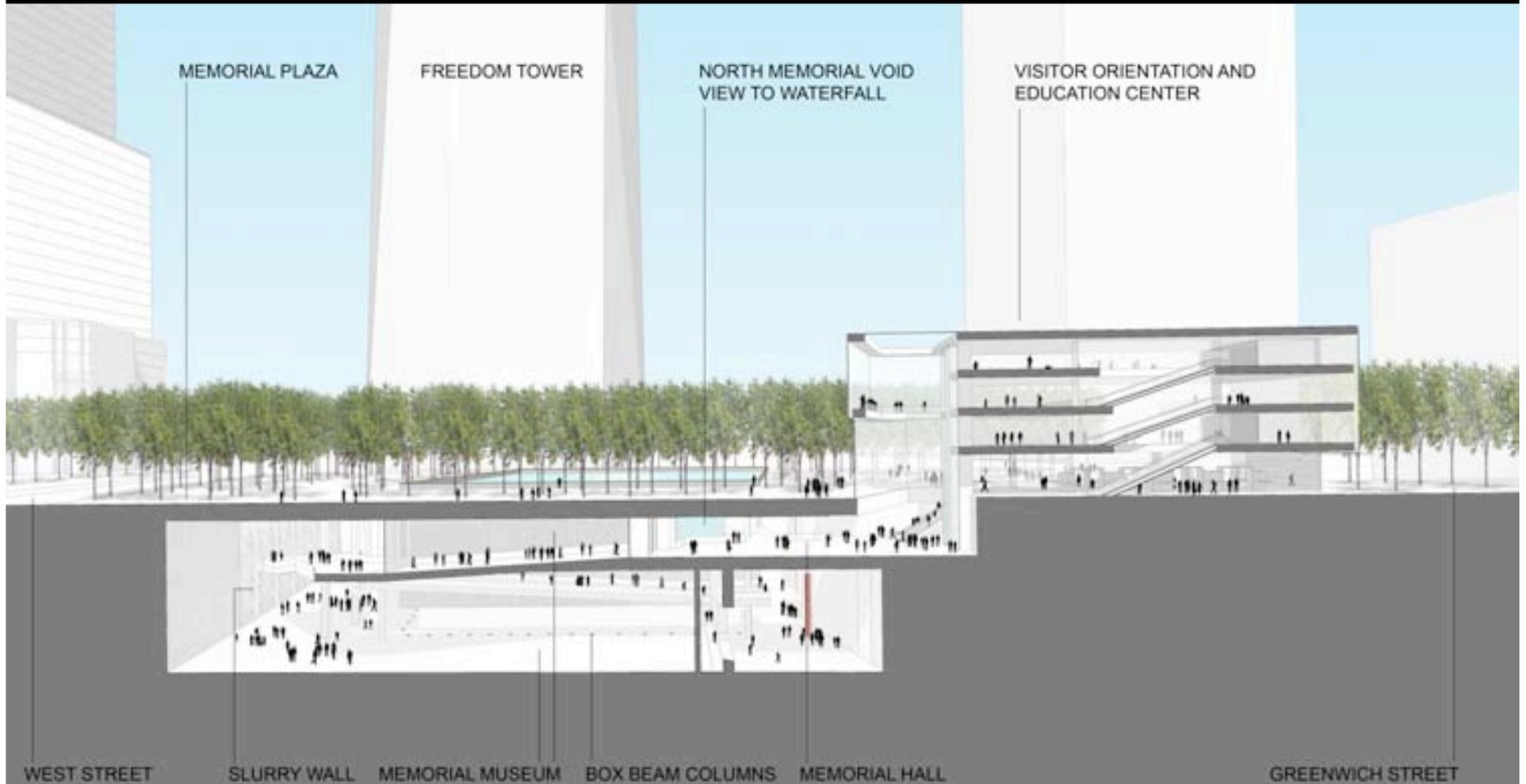
The Memorial: *Reflecting Absence*



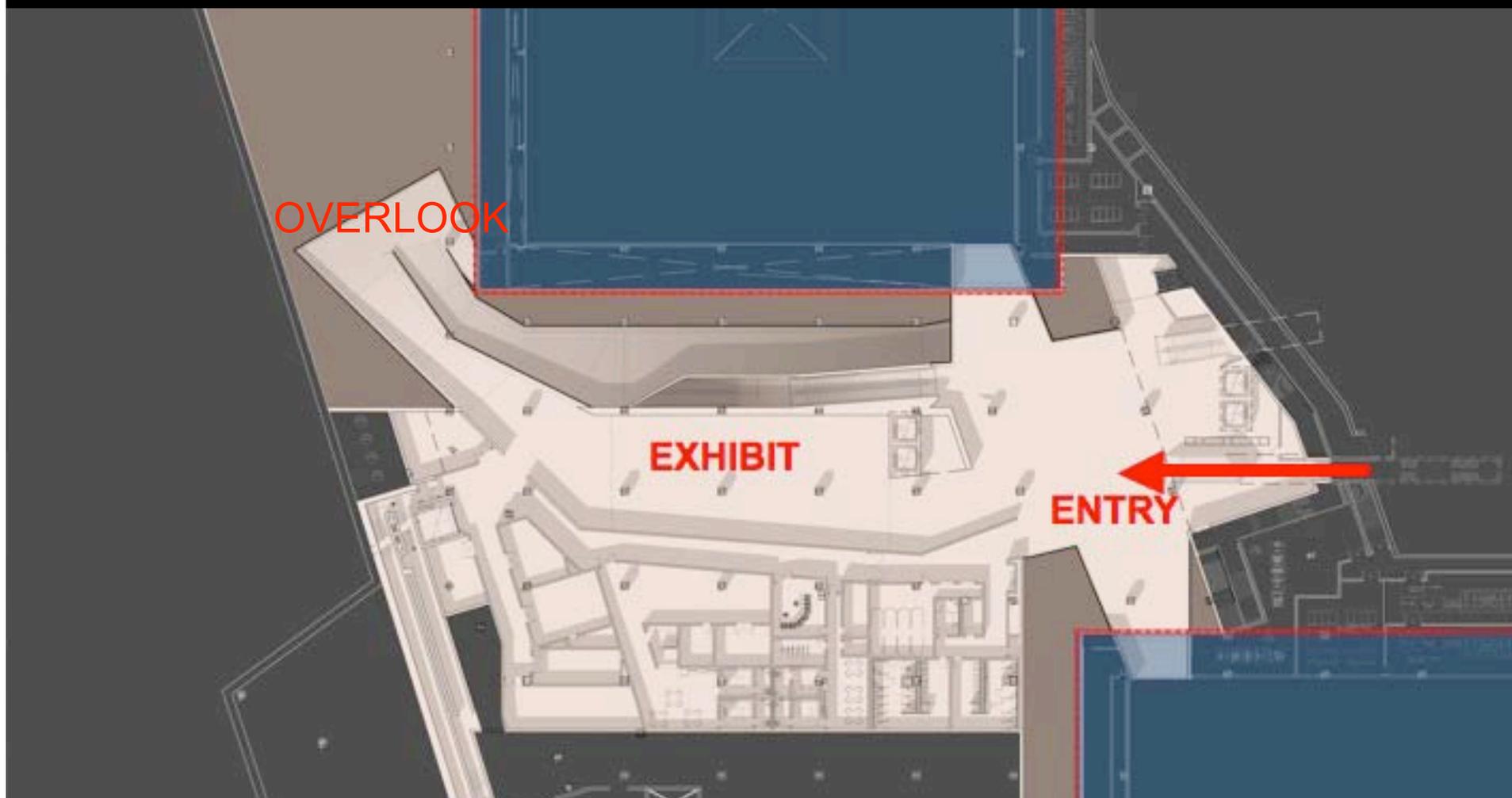
The Memorial Plaza



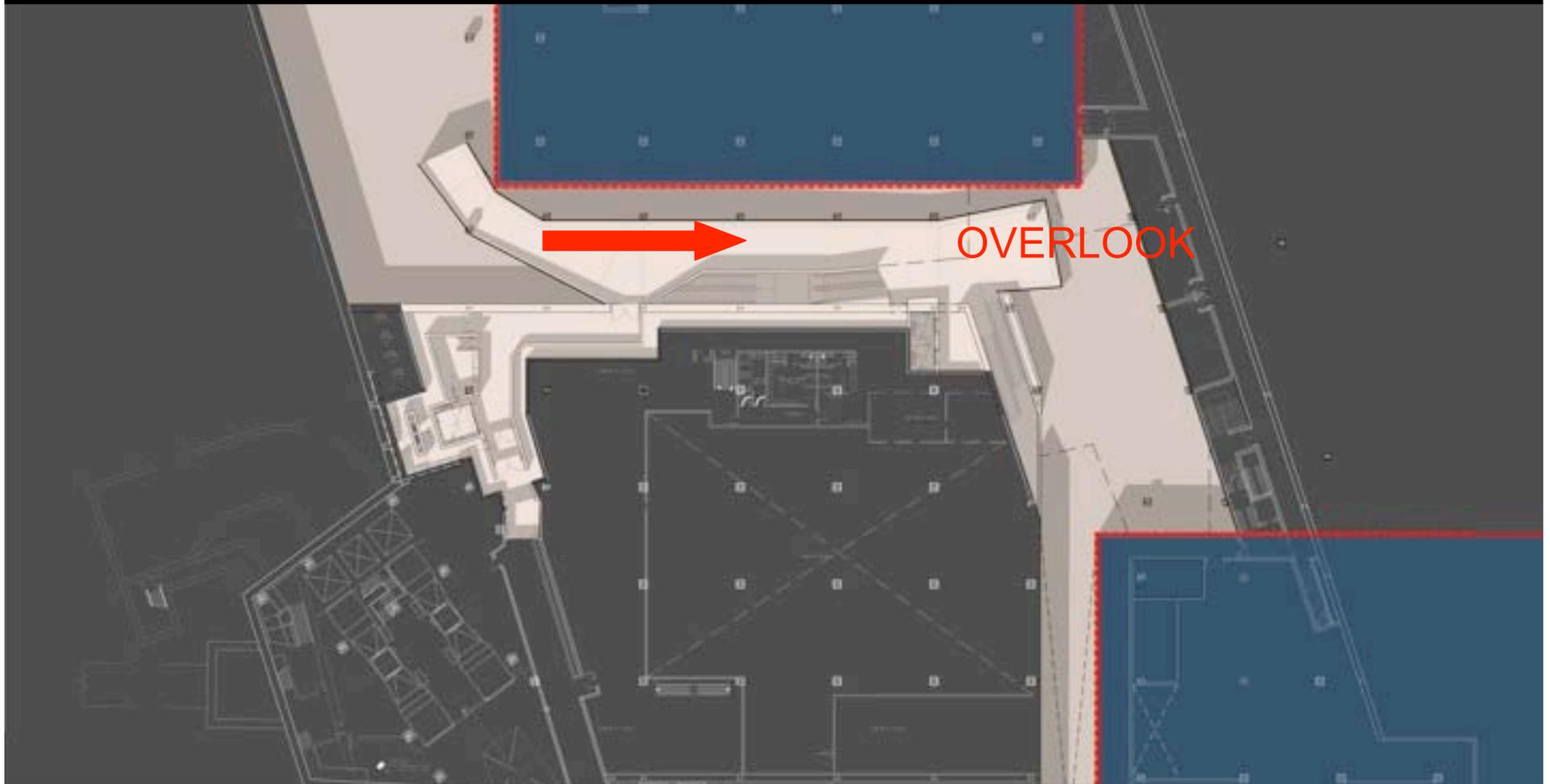
Cross-section of Memorial and Museum



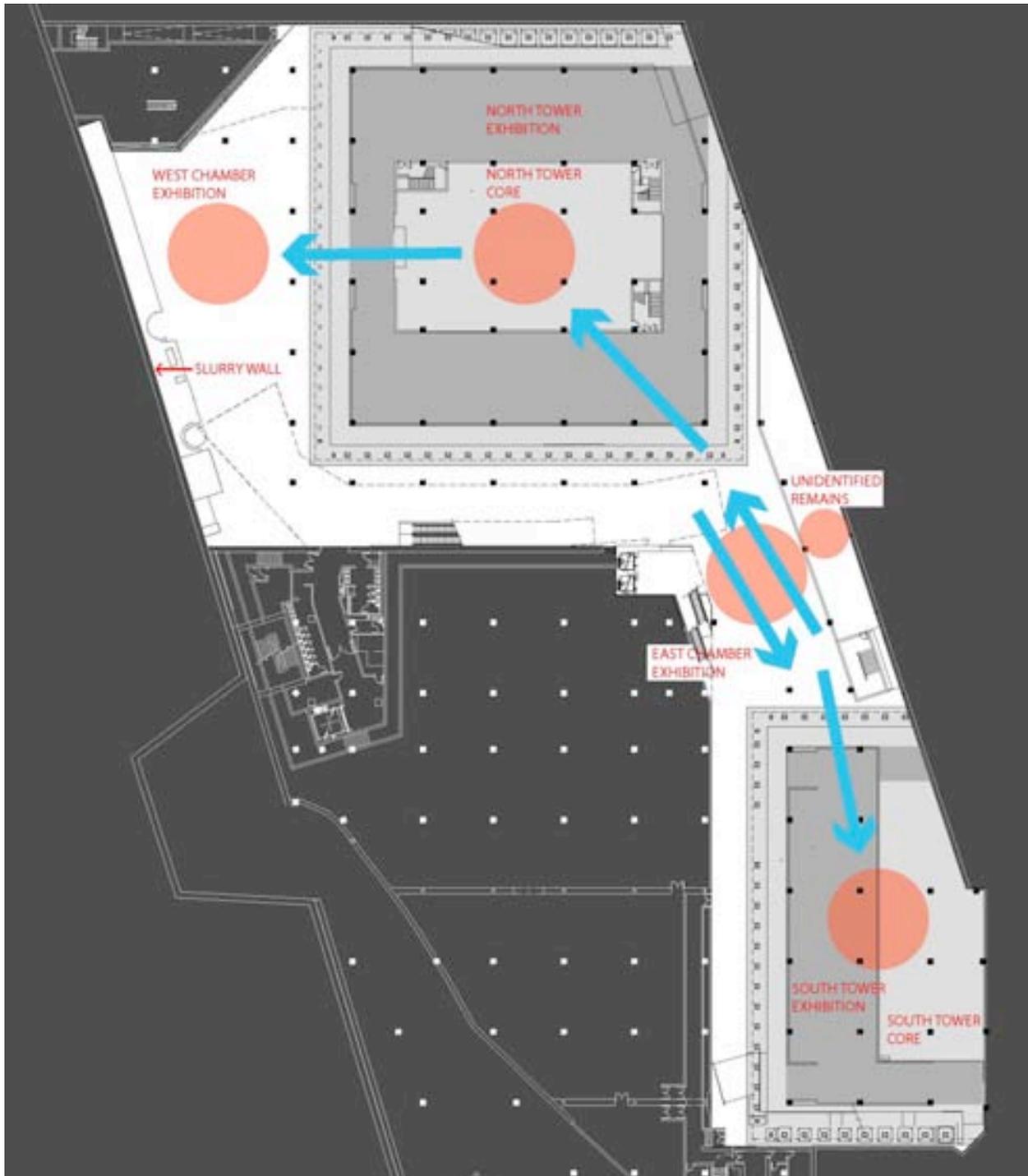
Memorial Museum Exhibit Level



Memorial Museum Descent and Overlooks

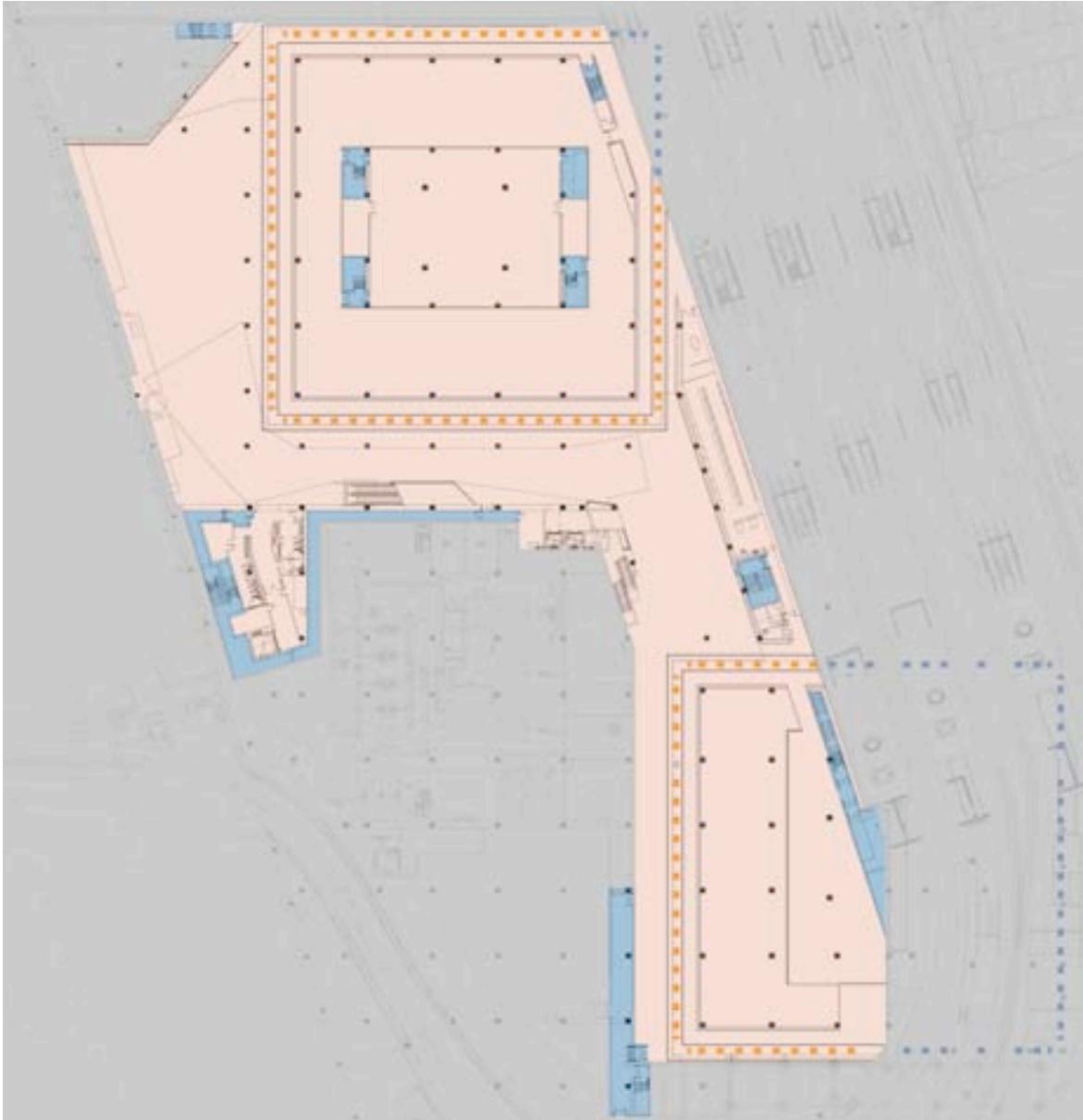


Memorial Museum at Bedrock





Design Update



EL.+242': "BEDROCK" LEVEL

Key Responses:

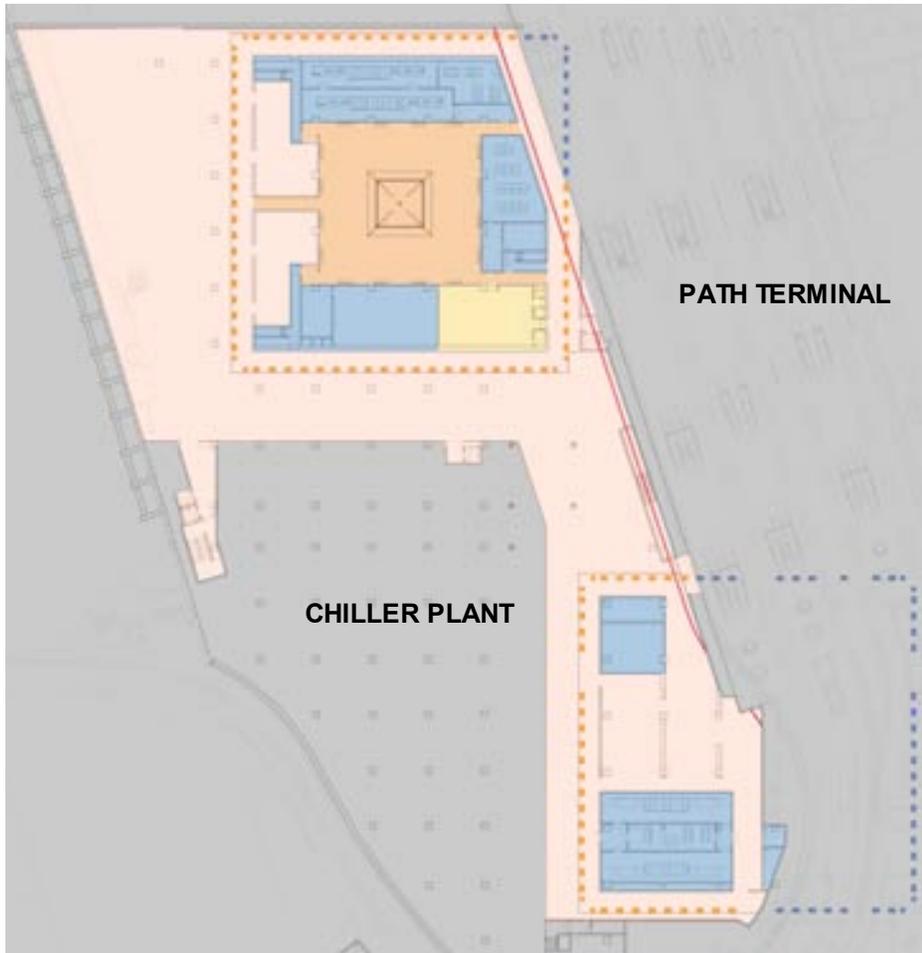
Minimized structural impact from columns.

Eliminated shear walls from footprint areas.

Relocated mechanical equipment.

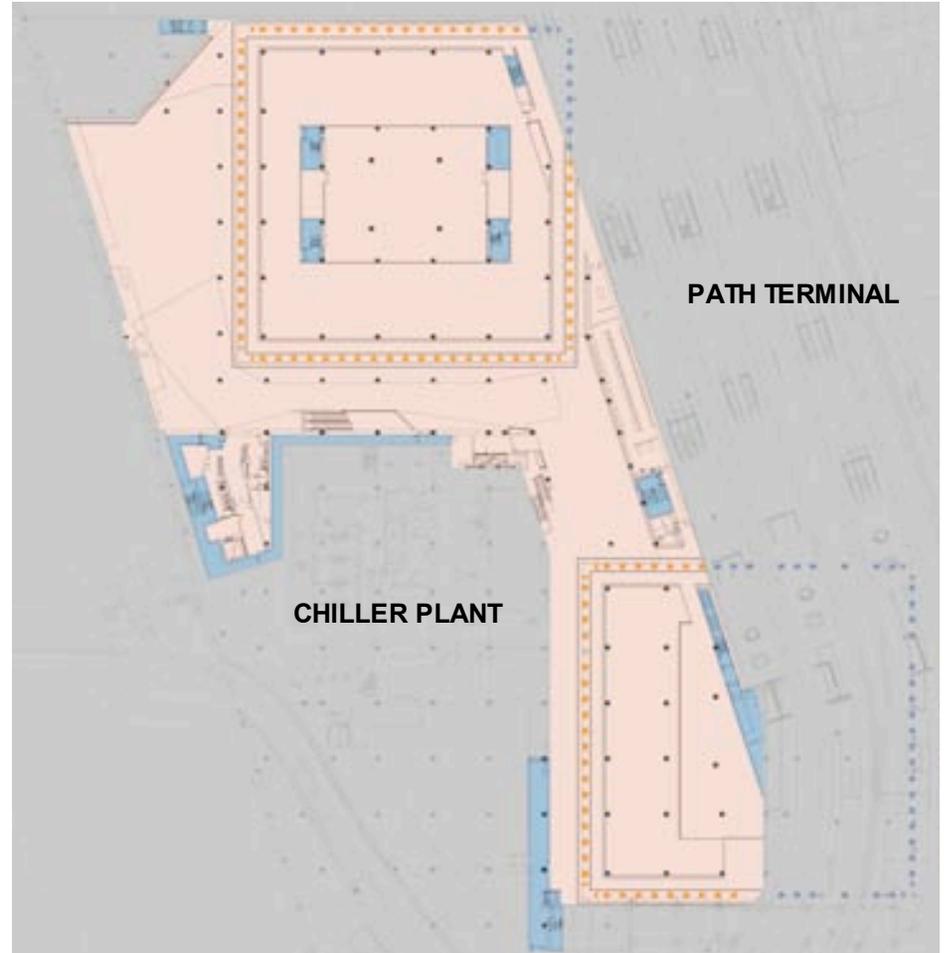
Reorganized egress stair locations.

BEDROCK LEVEL: EL. +242'
MEMORIAL MUSEUM SCHEMATIC DESIGN UPDATE



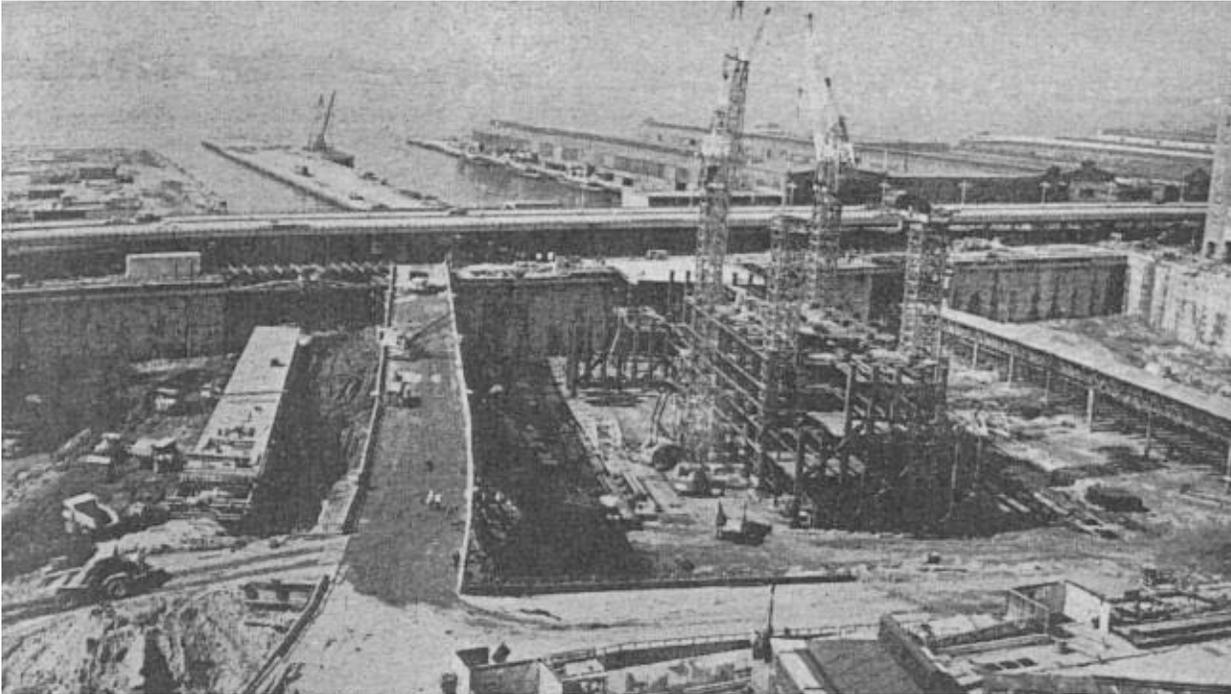
PLAN:
SEPTEMBER 14, 2005

- MUSEUM
- MEMORIAL
- FAMILY
- MECHANICAL RM. AND EGRESS STAIRS
- OTHER PROJECTS

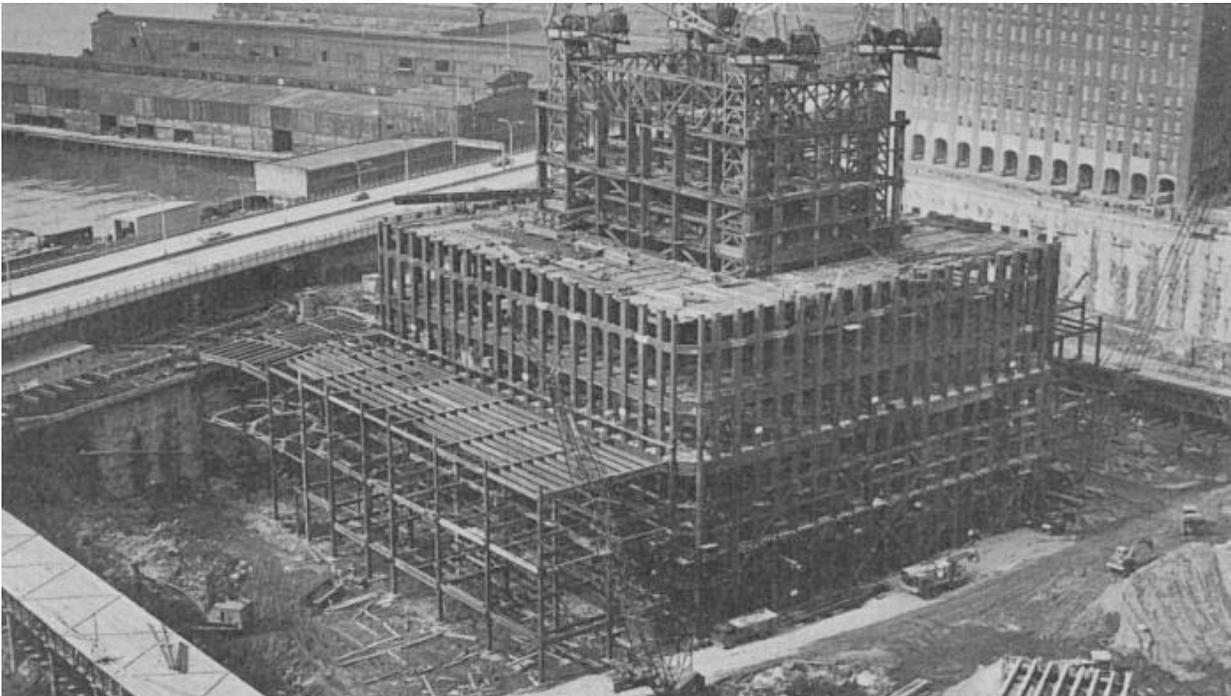


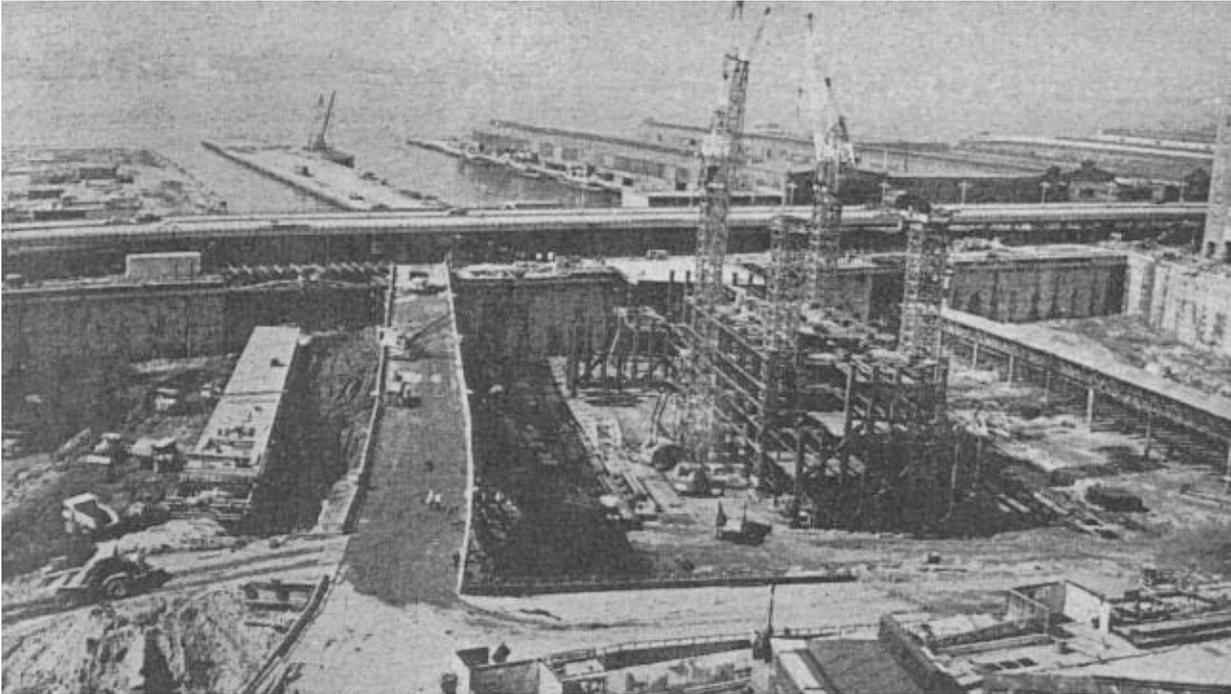
PLAN:
AUGUST 31, 2006

- MEMORIAL MUSEUM
- EGRESS STAIRS
- OTHER PROJECTS

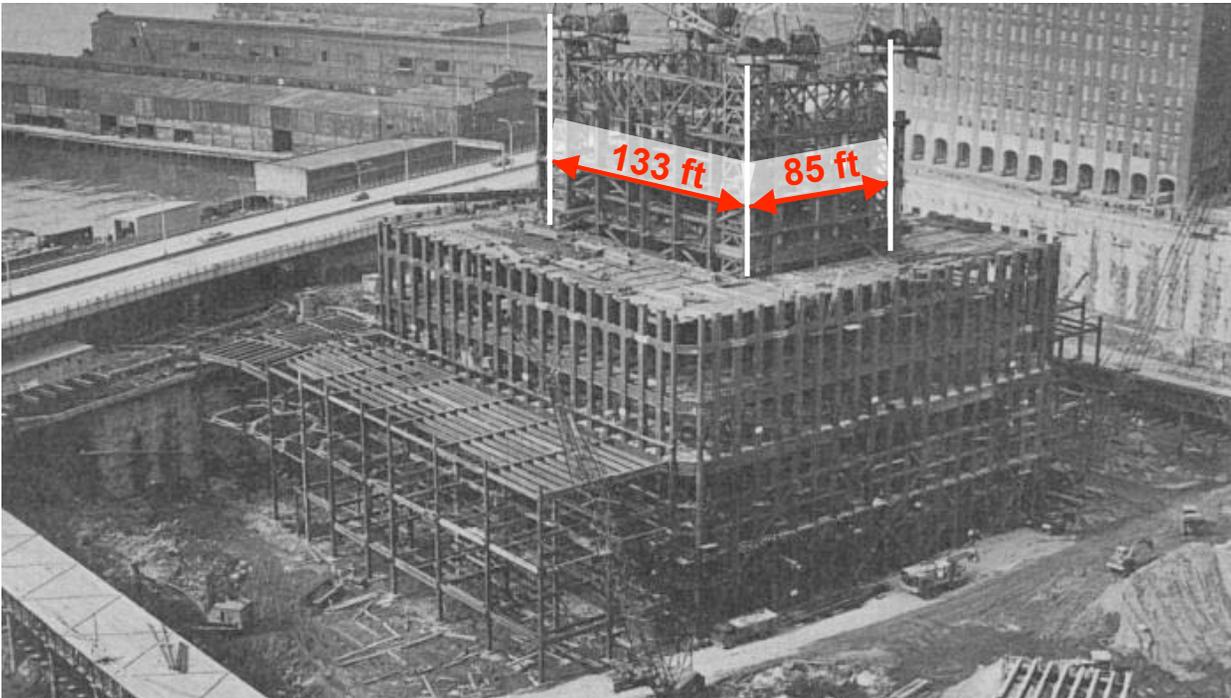


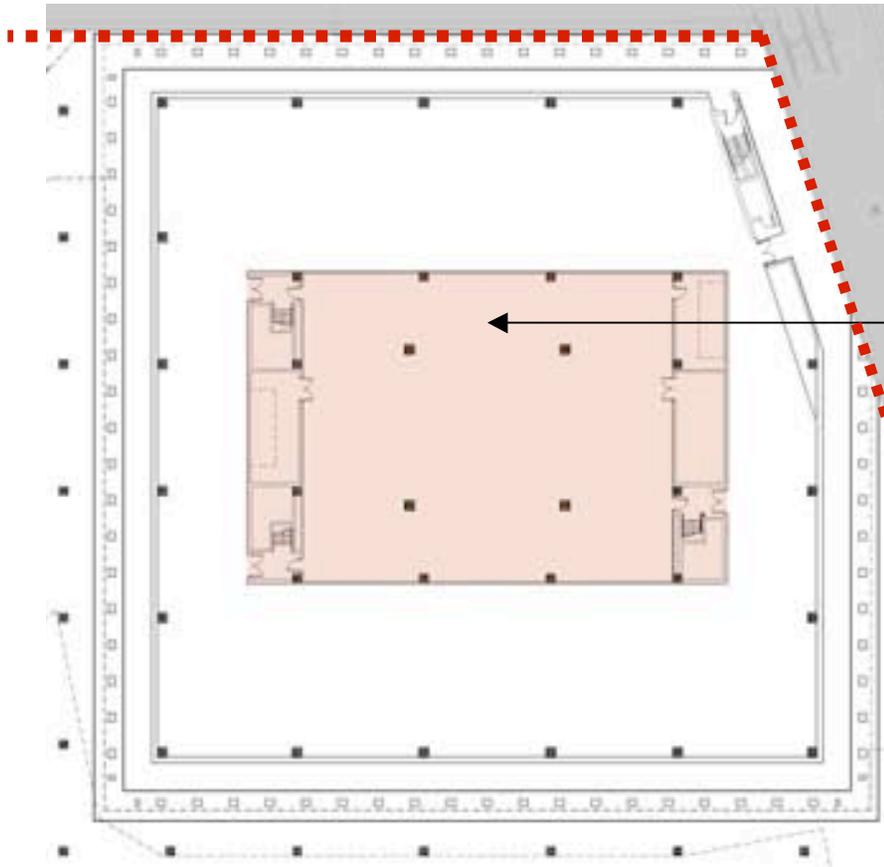
North Tower Construction





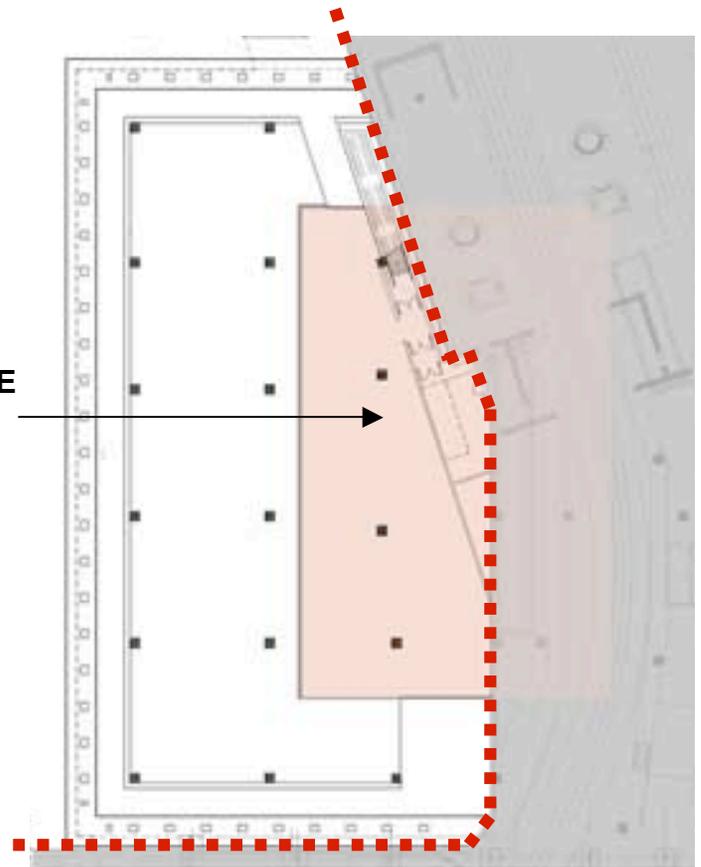
North Tower Construction





North Tower Footprint

AREA OF
TOWER CORE
FOOTPRINTS



South Tower Footprint

EL.+242': "BEDROCK" LEVEL

Access Considerations

SLURRY WALL



Key Design Issues:

Long term solution.

Constructability.

Preservation.

Visitor experience.

Waterproofing.

Cost.



Truss / Full Counterfort Option



Truss / Liner Wall / Counterfort Option

PREVIOUS SLURRY WALL OPTIONS (presented January 11, 2006)

**SLURRY WALL OPTION 1 :
LINER WALL / GLASS ENCLOSURE
EXPOSED WALL = 20 ft x 48 ft**



**SLURRY WALL OPTION 2 :
LINER WALL / OPEN PANEL
EXPOSED WALL = 20 ft x 58 ft**





Option 1 Key Design Issues:

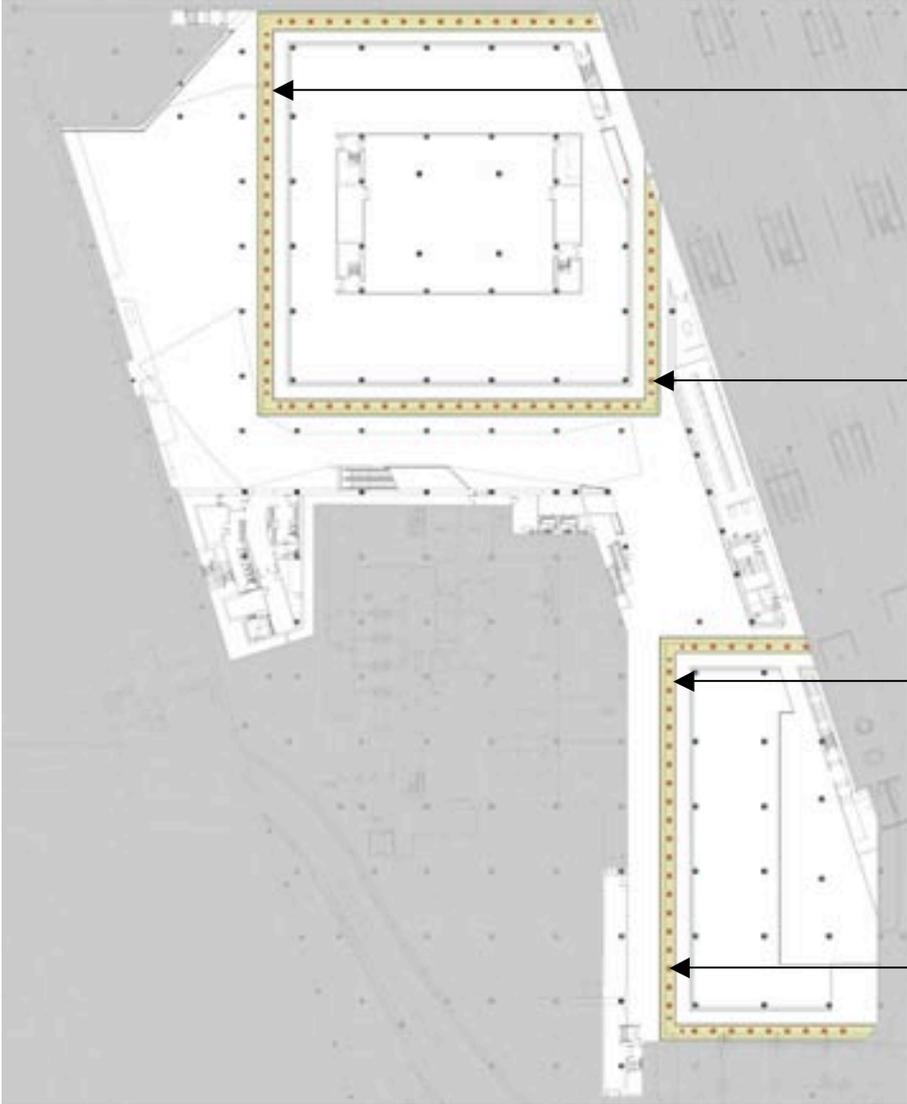
- Long term solution. **PANYNJ Review Pending**
- Constructability. Resolved
- Preservation. **Consultation Pending**
- Visitor experience. **Consultation Pending**
- Waterproofing. Resolved
- Cost. **Cost Estimate Pending**

Option 2 Key Design Issues:

- Long term solution. **PANYNJ Review Pending**
- Constructability. Resolved
- Preservation. **Consultation Pending**
- Visitor experience. **Consultation Pending**
- Waterproofing. Resolved
- Cost. **Cost Estimate Pending**

Access Considerations

PERIMETER BOX COLUMNS



PERIMETER
SLAB REMNANT
ACCESSIBLE AT
"BEDROCK" LEVEL

PERIMETER
BOX COLUMN REMNANT
ACCESSIBLE AT
"BEDROCK" LEVEL

PERIMETER
SLAB REMNANT
ACCESSIBLE AT
"BEDROCK" LEVEL

PERIMETER
BOX COLUMN REMNANT
ACCESSIBLE AT
"BEDROCK" LEVEL

- Perimeter Slab Remnant Accessible at "Bedrock" Level
- Perimeter Box Column Remnant Accessible at "Bedrock" Level

EL.+242': "BEDROCK" LEVEL



Meaningful Access

Key Considerations:

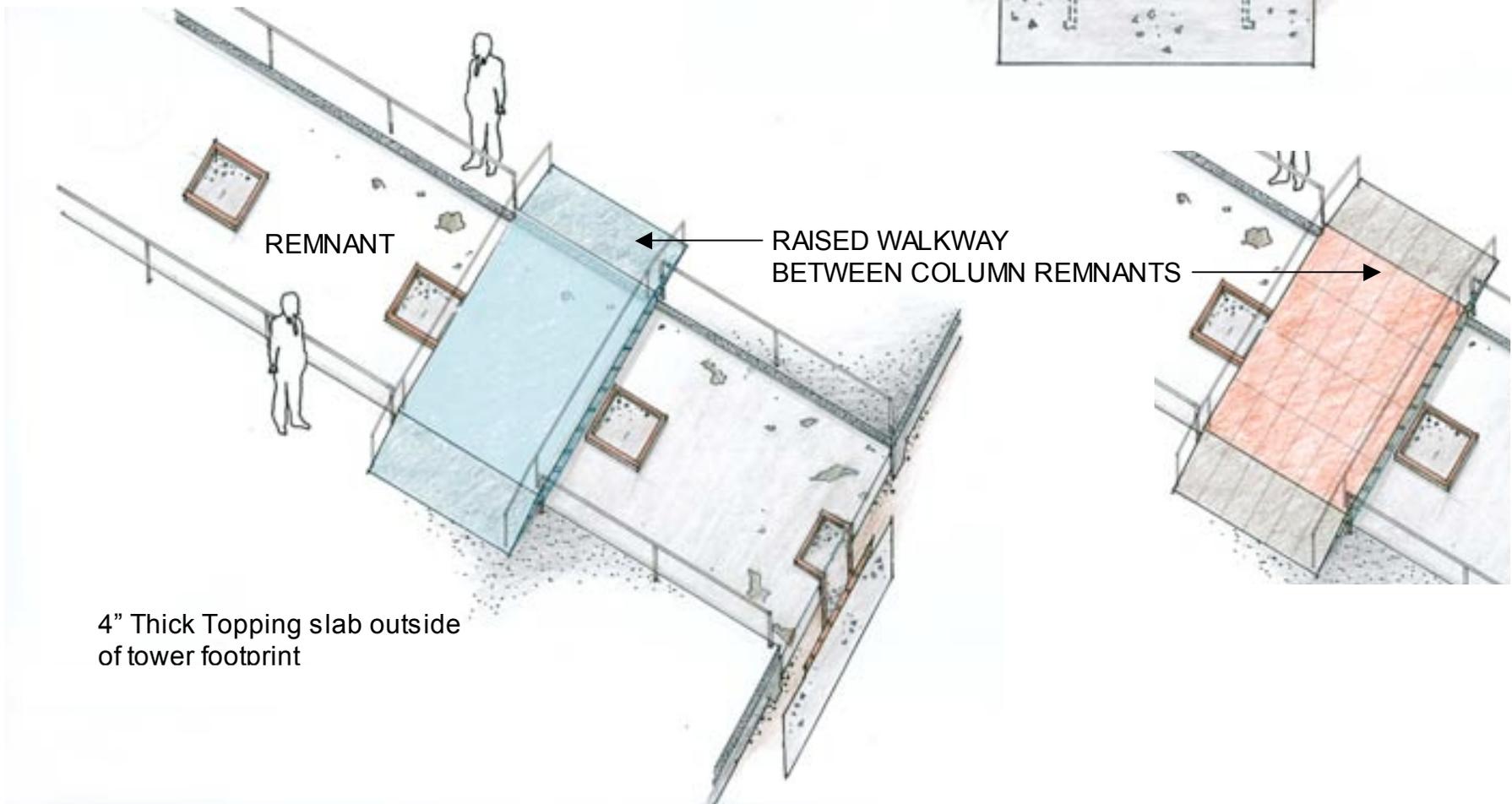
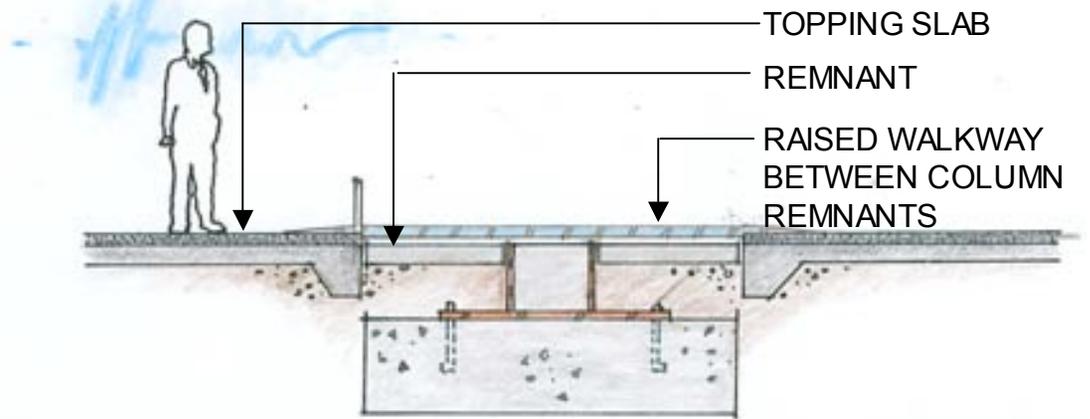
Preservation.

Visitor Experience.

Accessibility.

Safety.

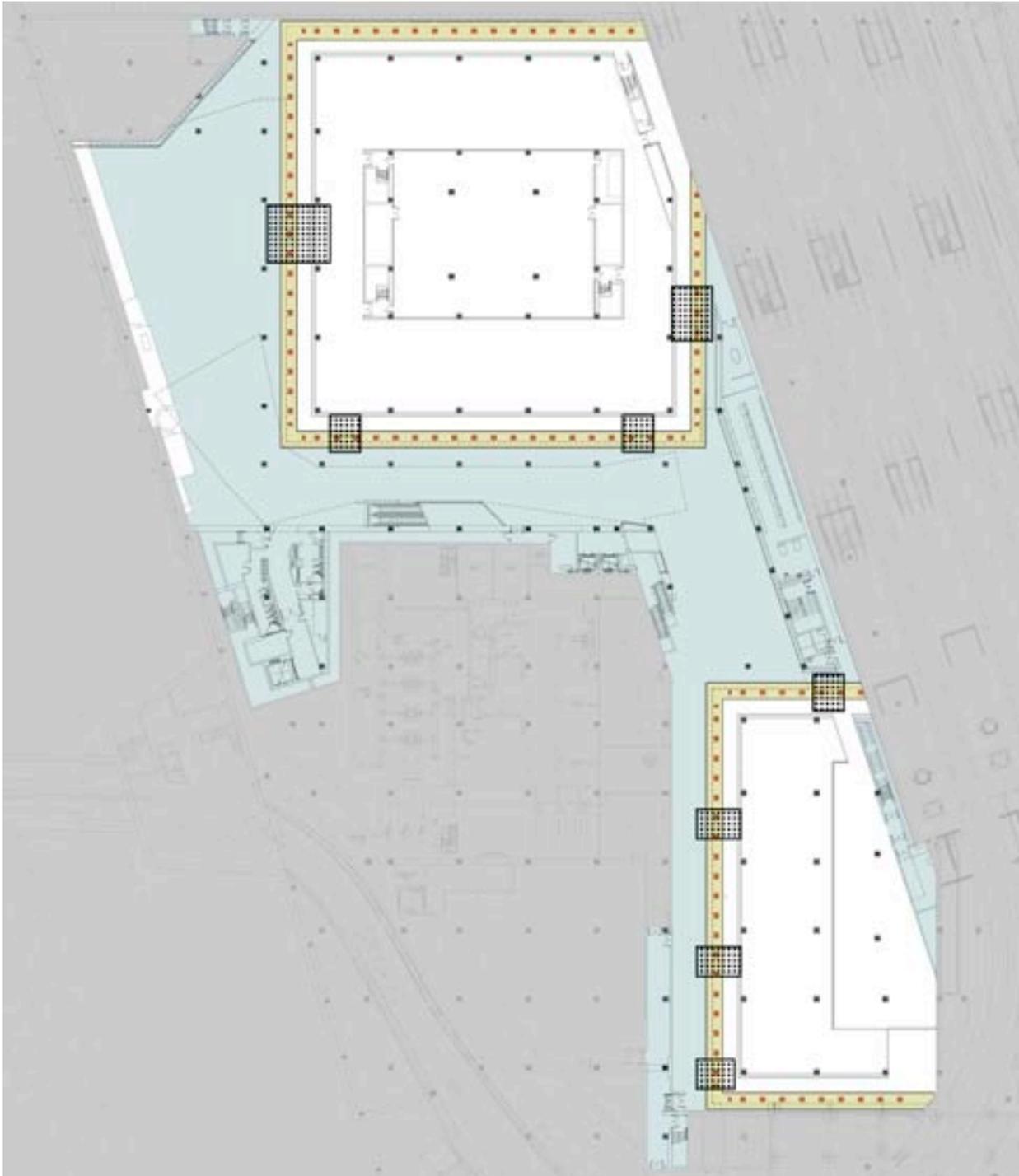
Western Perimeter of North Tower, July 27,
2005

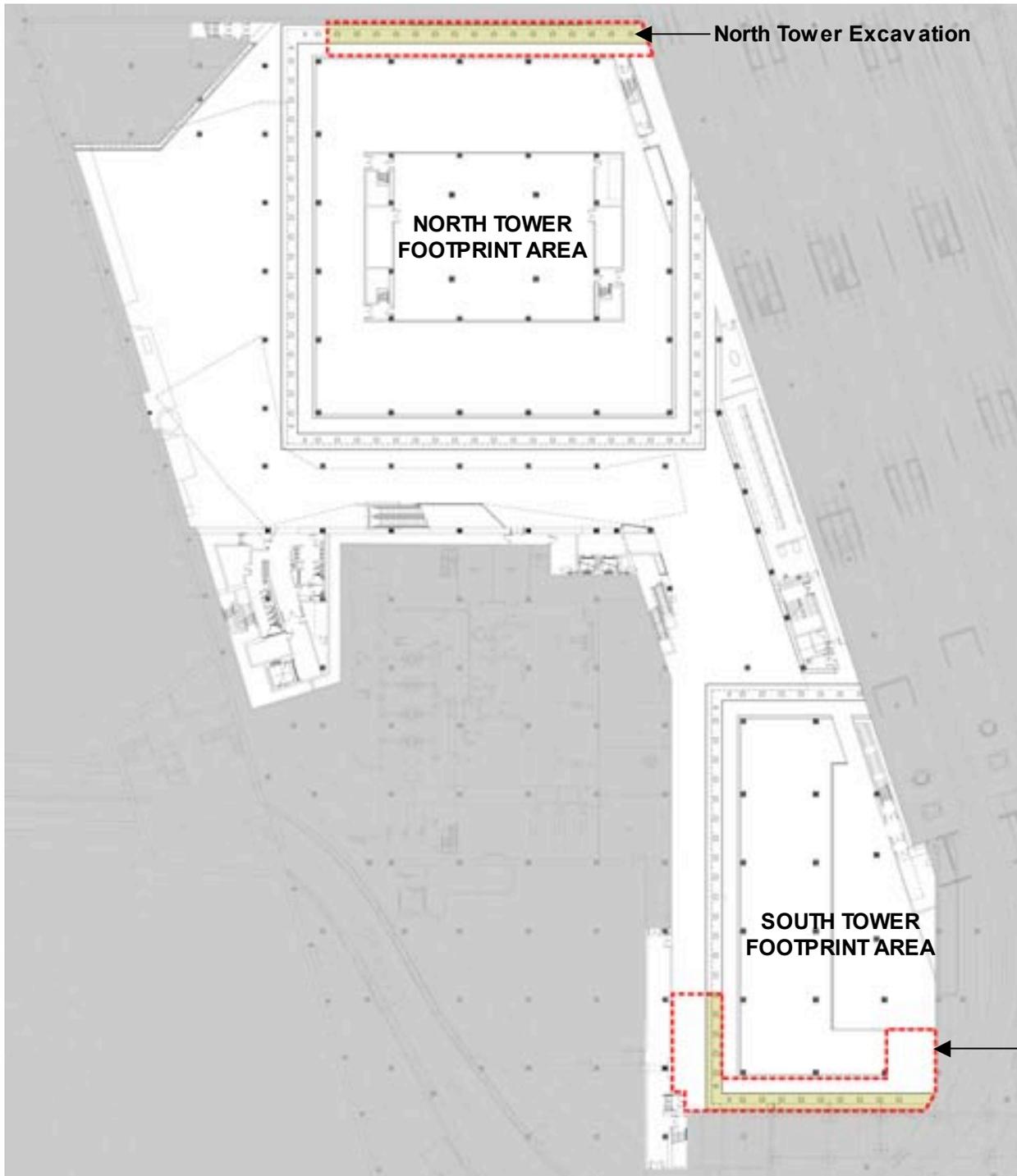


4" Thick Topping slab outside of tower footprint

Recommended Access For All Available Box Columns

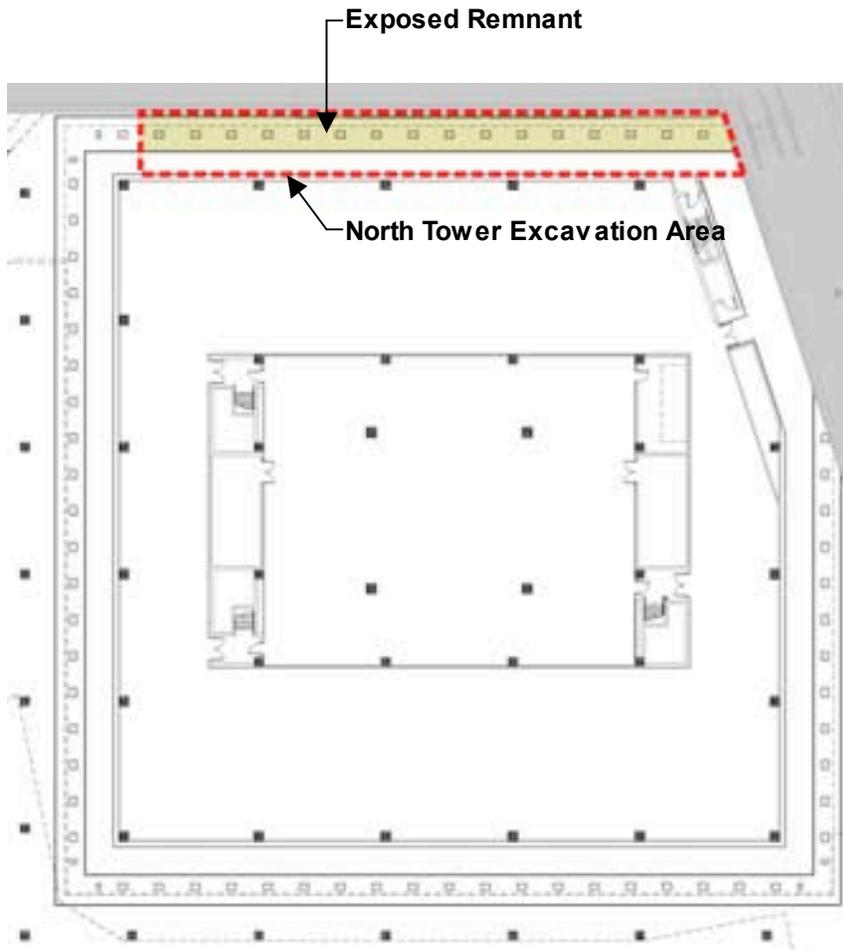
-  Perimeter Slab Remnant
-  4" topping slab
-  Perimeter Box Column Remnants
-  Raised Walkways (Locations TBD)



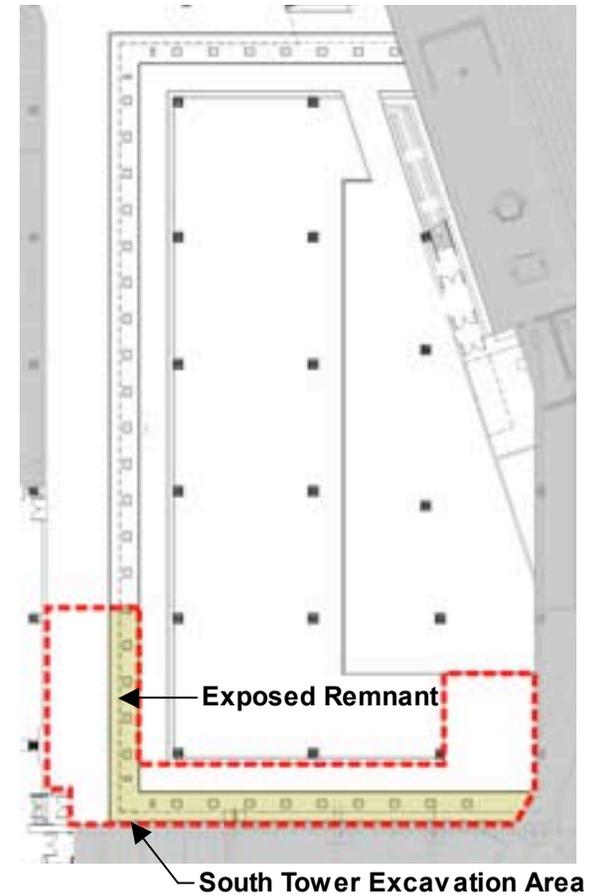


Additional Proposed Treatment of Box Columns in Select Areas

South Tower Excavation



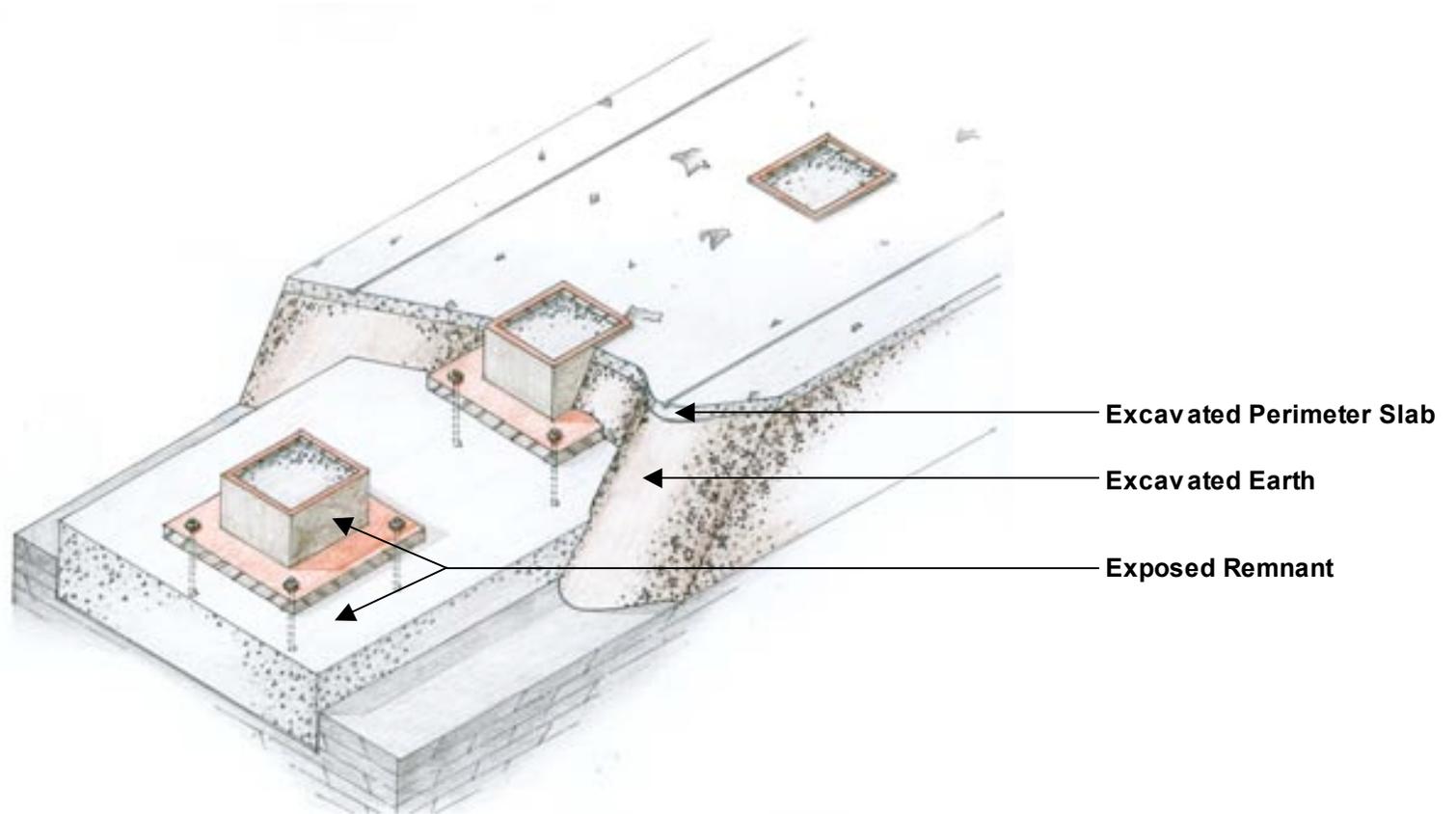
North Tower Footprint



South Tower Footprint

Additional Proposed Treatment of Box Columns in Select Areas

“BEDROCK LEVEL” - EXCAVATIONS



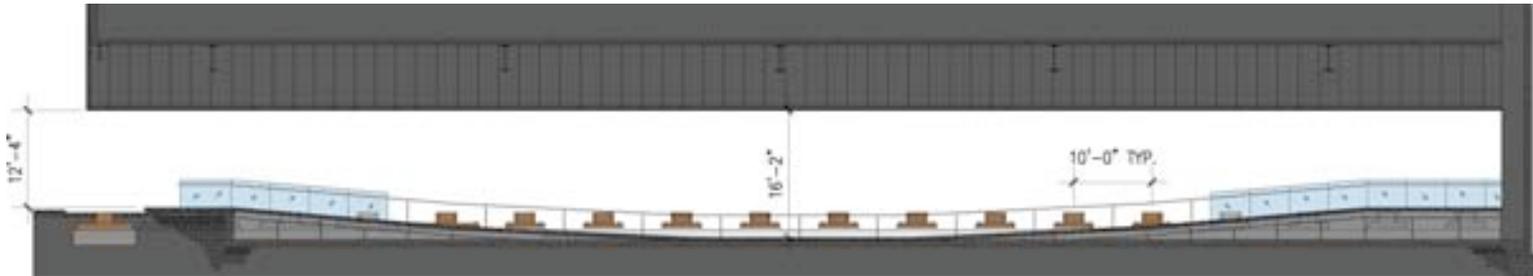
Excavated Perimeter Slab

Excavated Earth

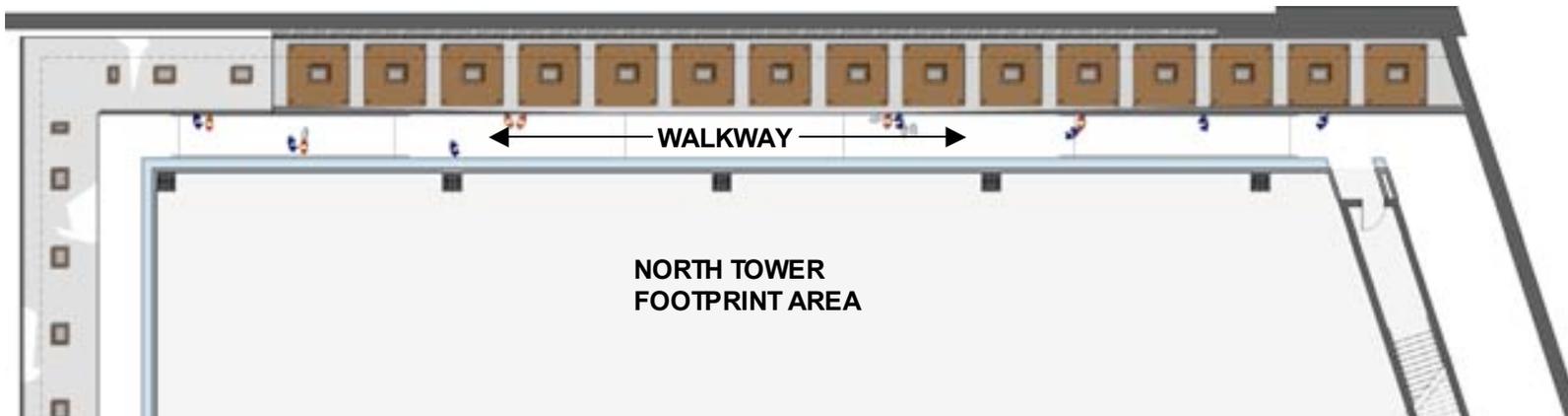
Exposed Remnant

Typical Excavated Remnant

“BEDROCK LEVEL” - EXCAVATIONS

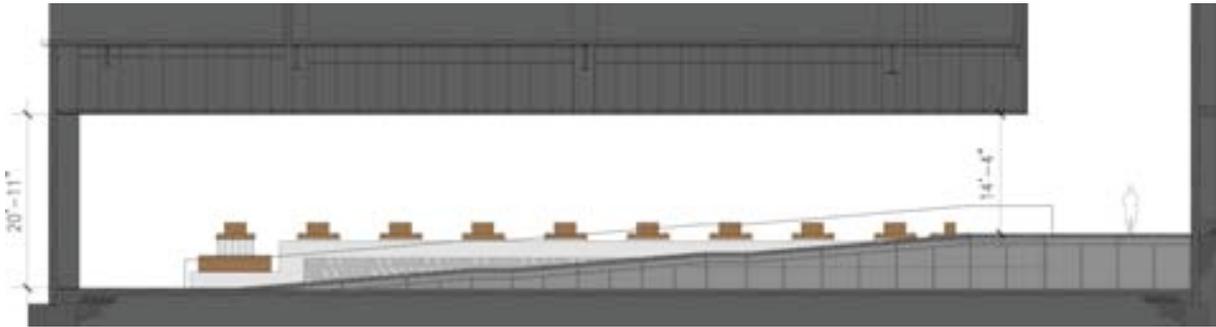


2. North Tower Excavation Area Section

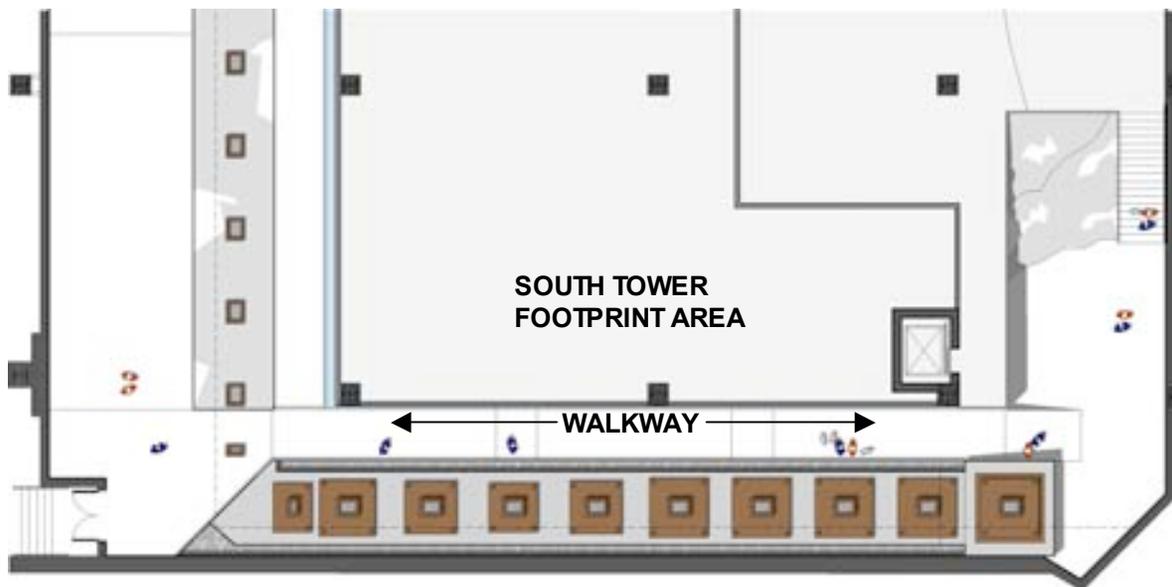


1. North Tower Excavation Area Plan

“BEDROCK LEVEL” – NORTH TOWER EXCAVATION

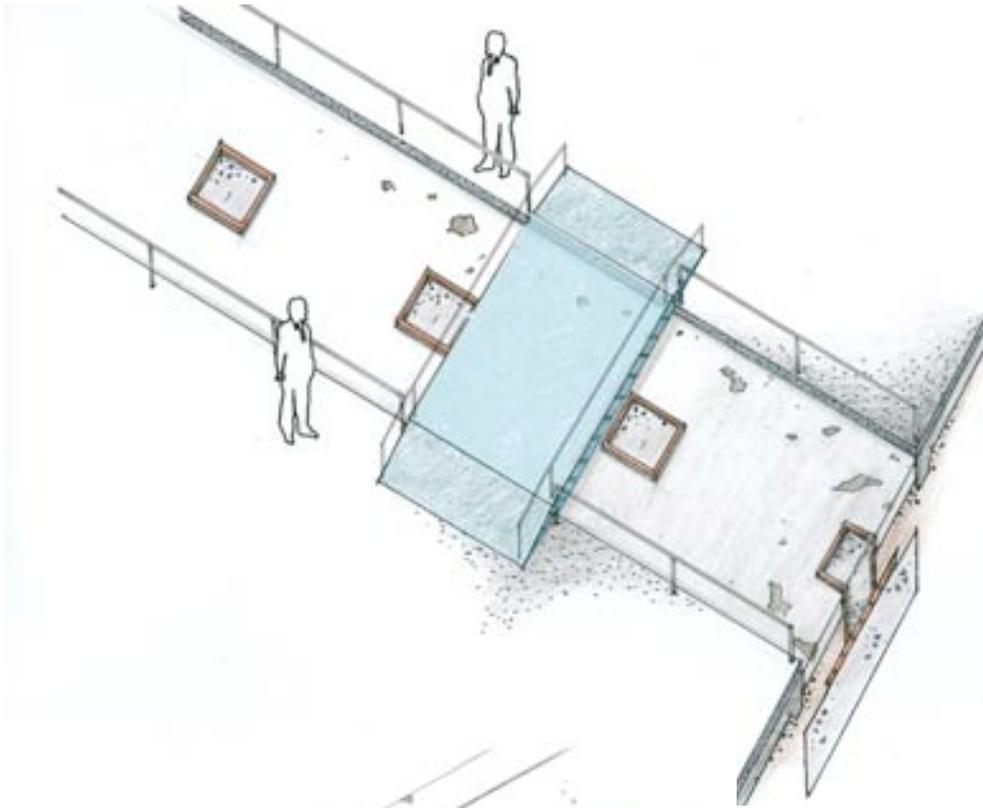


2. South Tower Excavation Area Section



1. South Tower Excavation Area Plan

“BEDROCK LEVEL” – SOUTH TOWER EXCAVATION



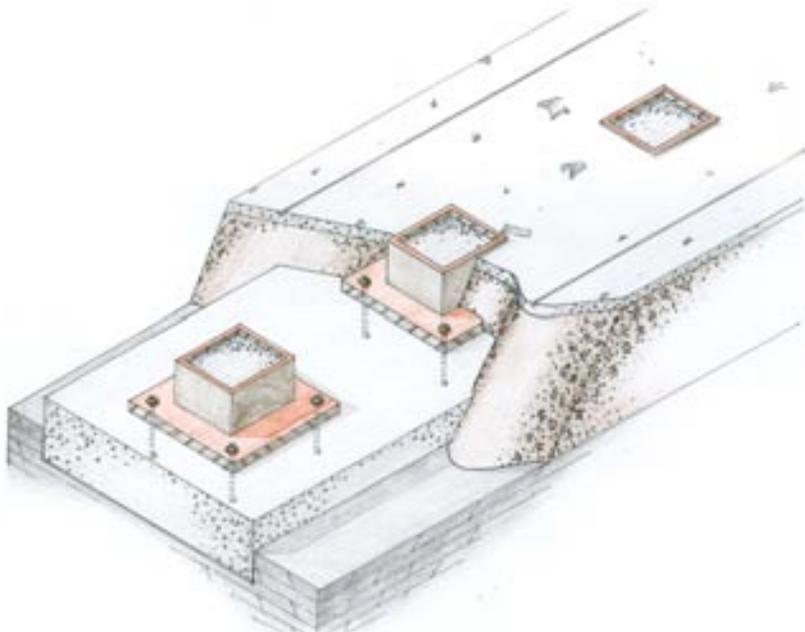
Raised Walkway:

Recommended Access For All Available Box Columns

Provides long term preservation.

Respectful and meaningful Visitor experience.

Resolves issues of accessibility and safety.



Areas of Excavation:

Proposed Treatment of Box Columns in Select Areas

SITE STATUS

CONDITIONS SURVEY STATUS



Site Survey

Additional Information

North Tower Footprint:

- 4 Core Columns Located
- 14 Steel Base Plates Located

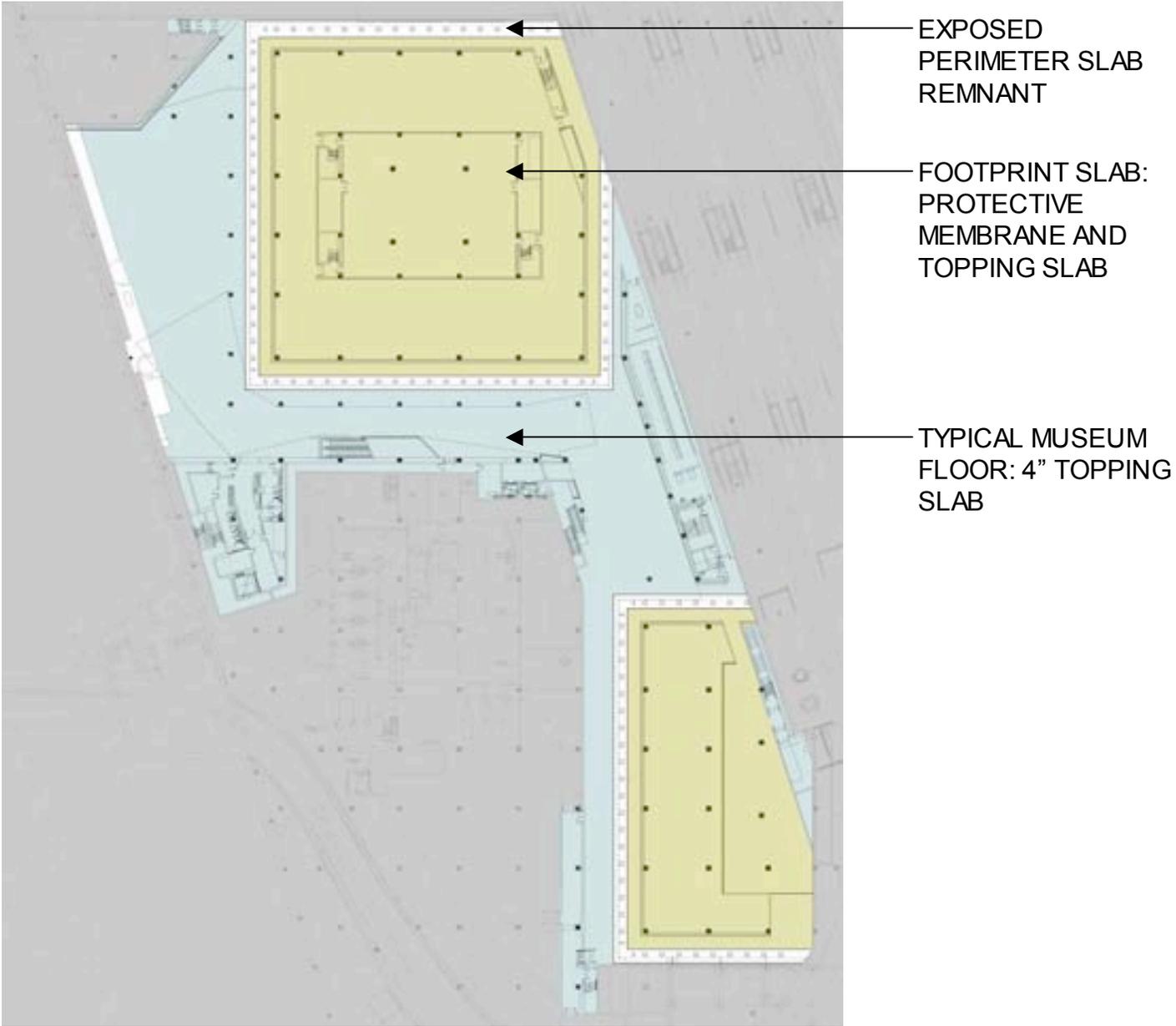
South Tower Footprint:

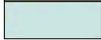
- 6 Additional Core Columns Located
(18 total located)
- 5 Steel Base Plates Located

Survey dated May 3, 2006

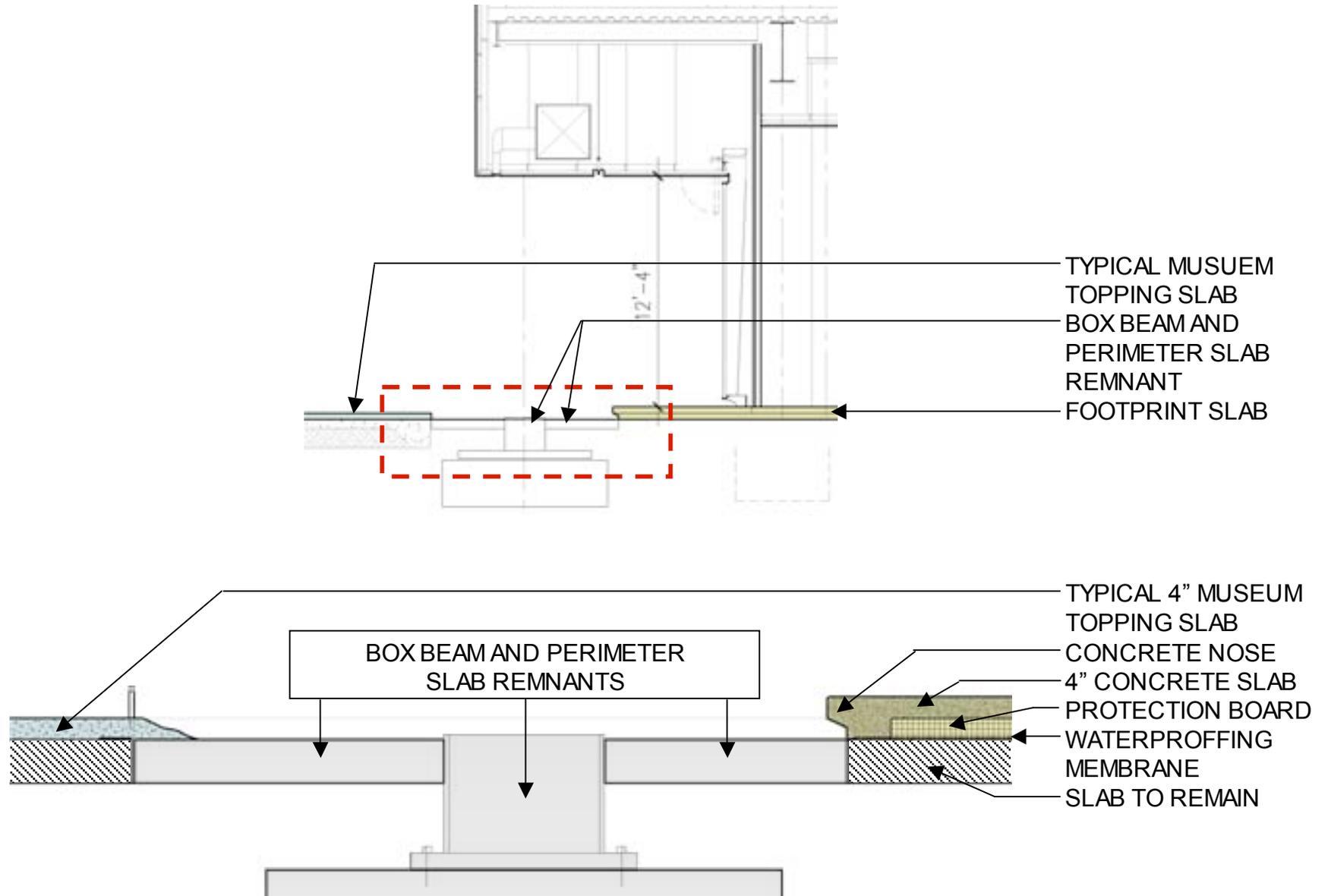
Site Status

FOOTPRINT SLAB

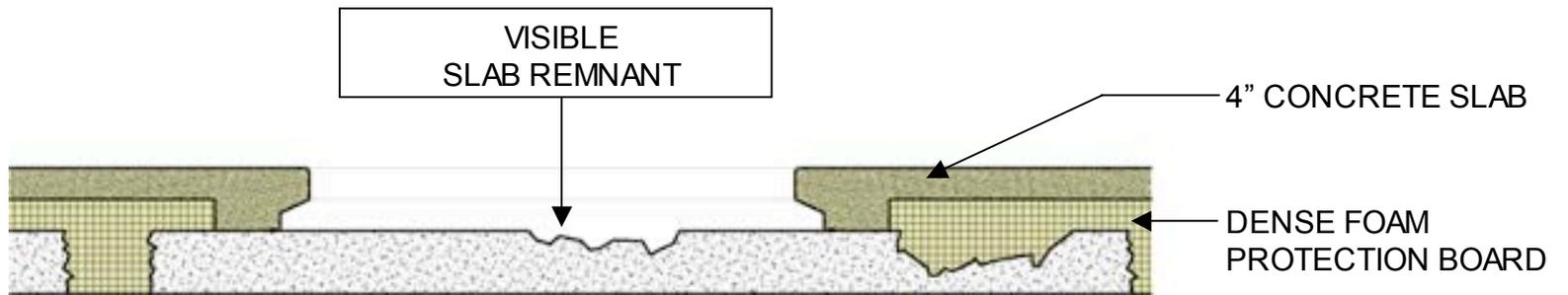
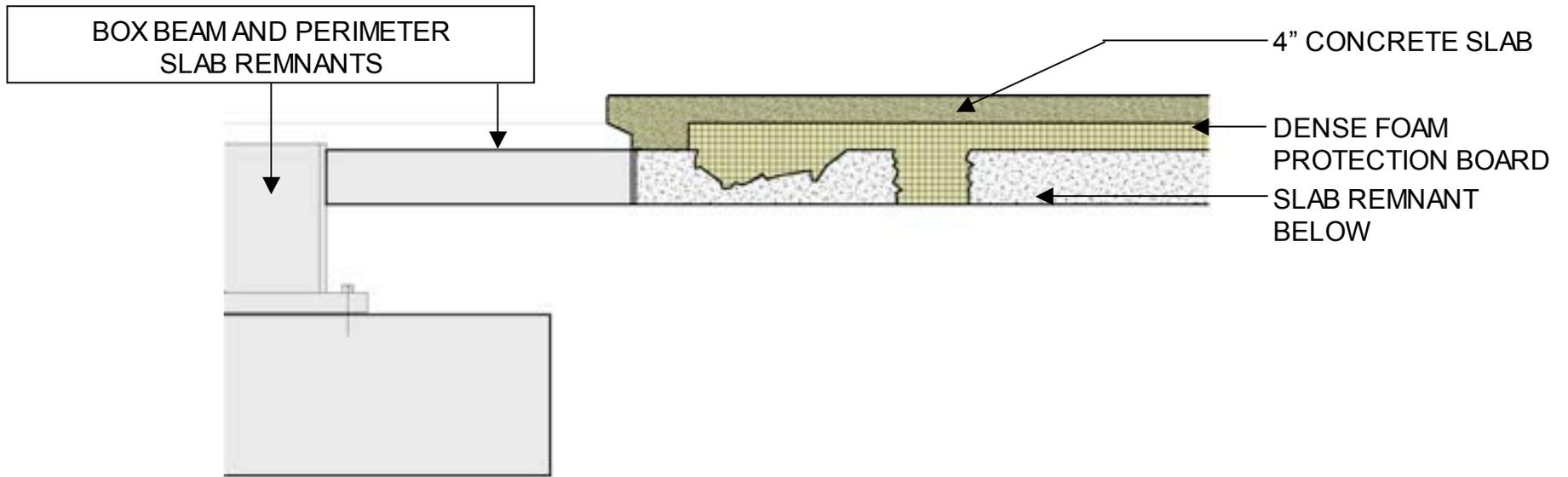


-  Footprint Slab: Protective Membrane and Topping Slab
-  Typical Museum Floor: 4" Topping Slab

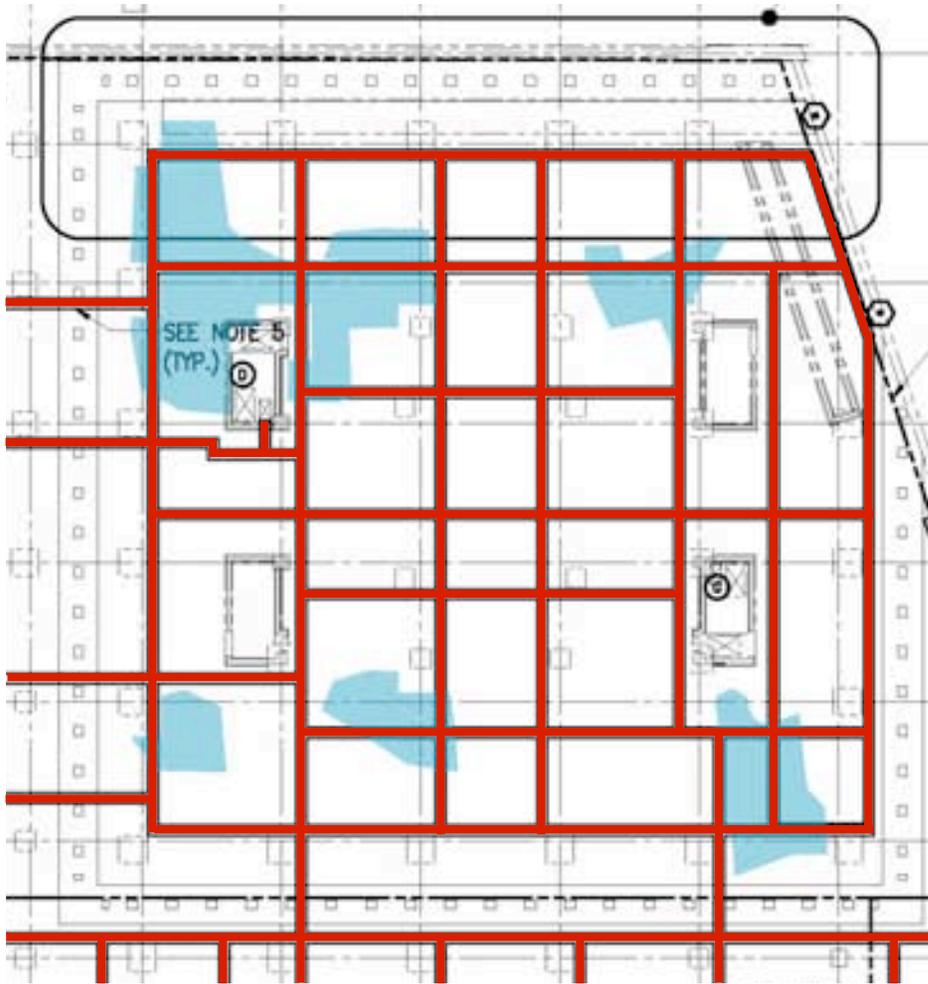
EL.+242': "BEDROCK" LEVEL



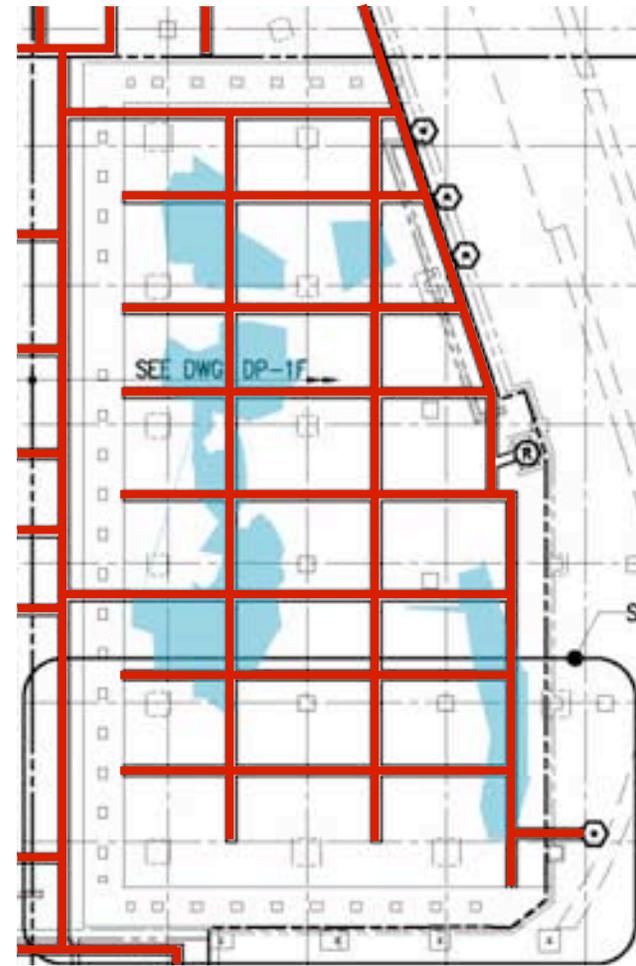
FOOTPRINT SLAB: Section & Detail



FOOTPRINT SLAB: Details



North Tower Footprint



South Tower Footprint


 FOOTPRINT SLAB REMNANTS

EL.+242': "BEDROCK" LEVEL



North Tower Footprint



South Tower Footprint



PROPOSED SLAB TO REMAIN IN SITU

EL.+242': "BEDROCK" LEVEL