Lincoln Memorial Reflecting Pool & Grounds Rehabilitation

18 March 2010

Agenda

Final Design Preferred Alternative

Security Barrier/ADA Access

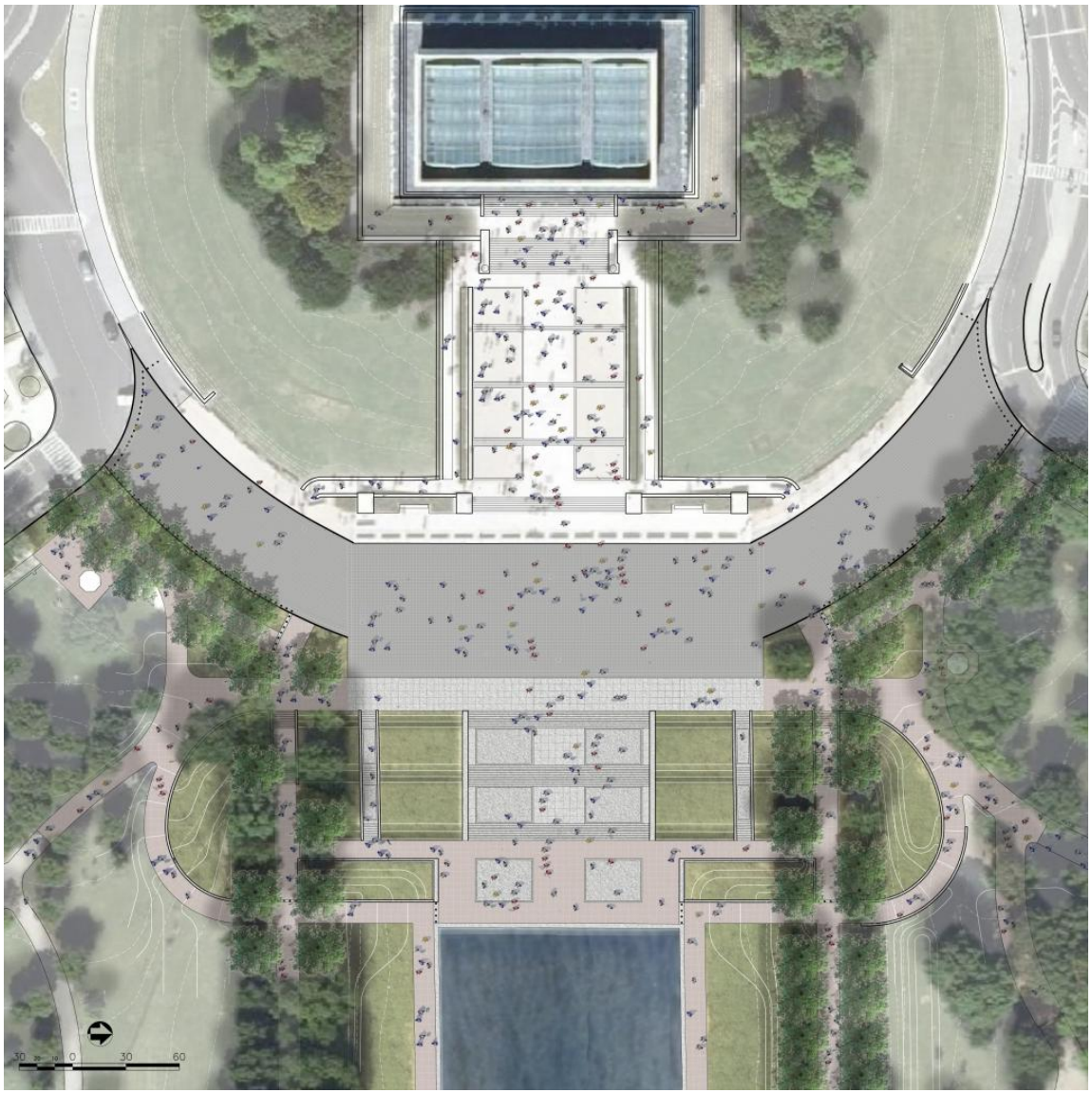
West Reflecting Pool Plaza

Pool Walks

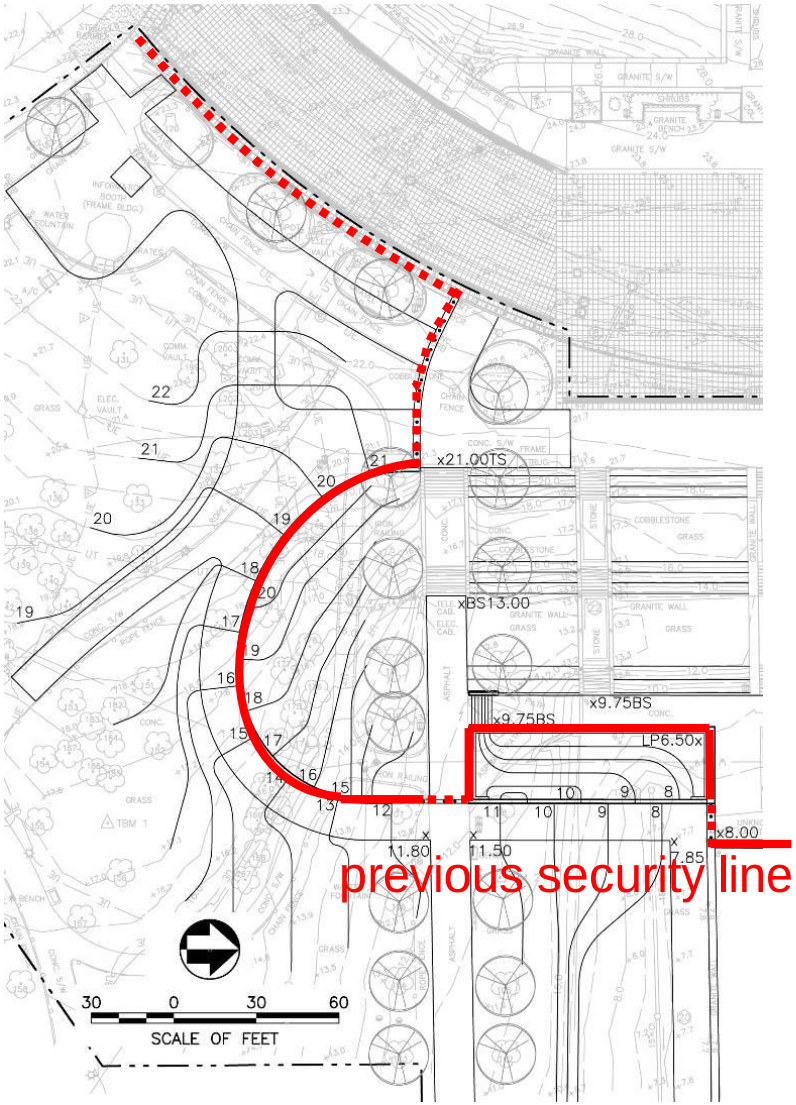
Elm Walks

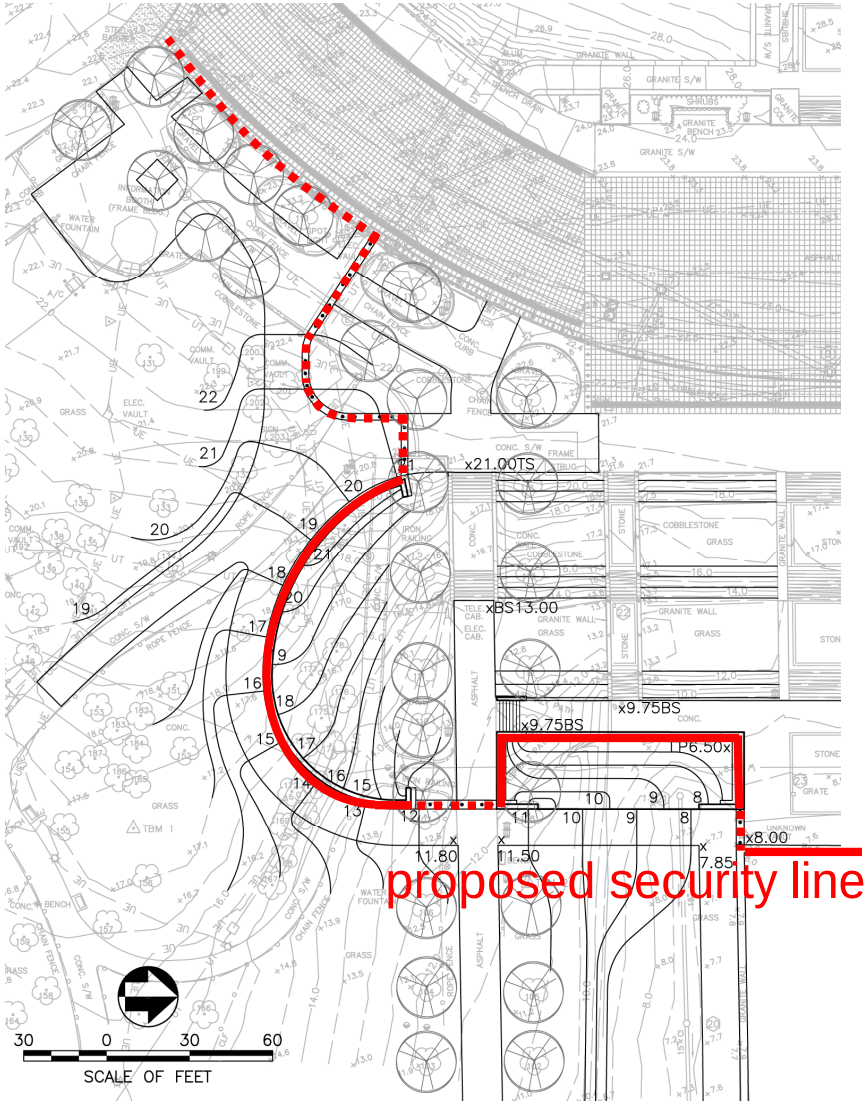
Water System

Final Design Preferred Alternative

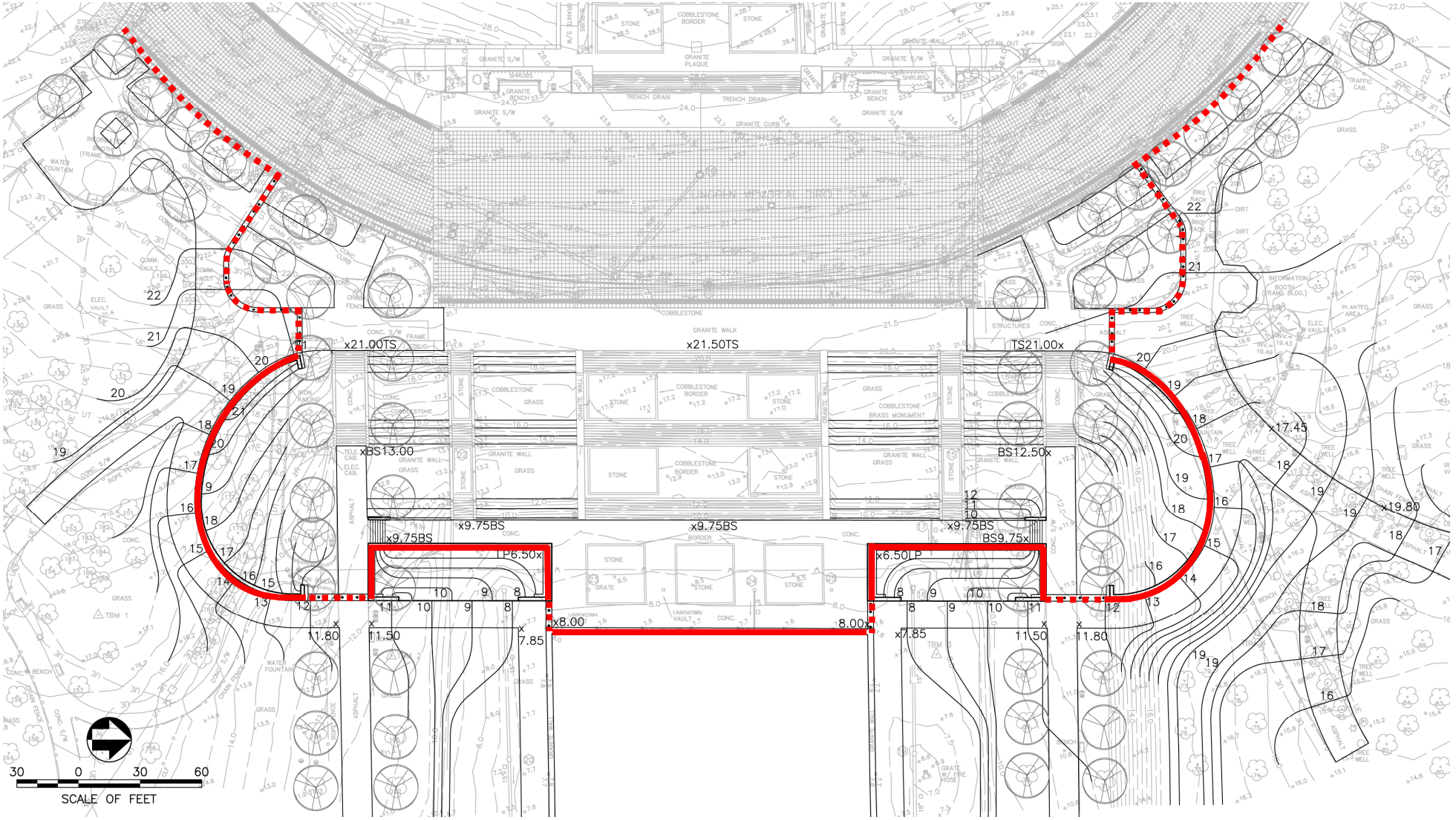


Security Walls Revised Security Line Comparison

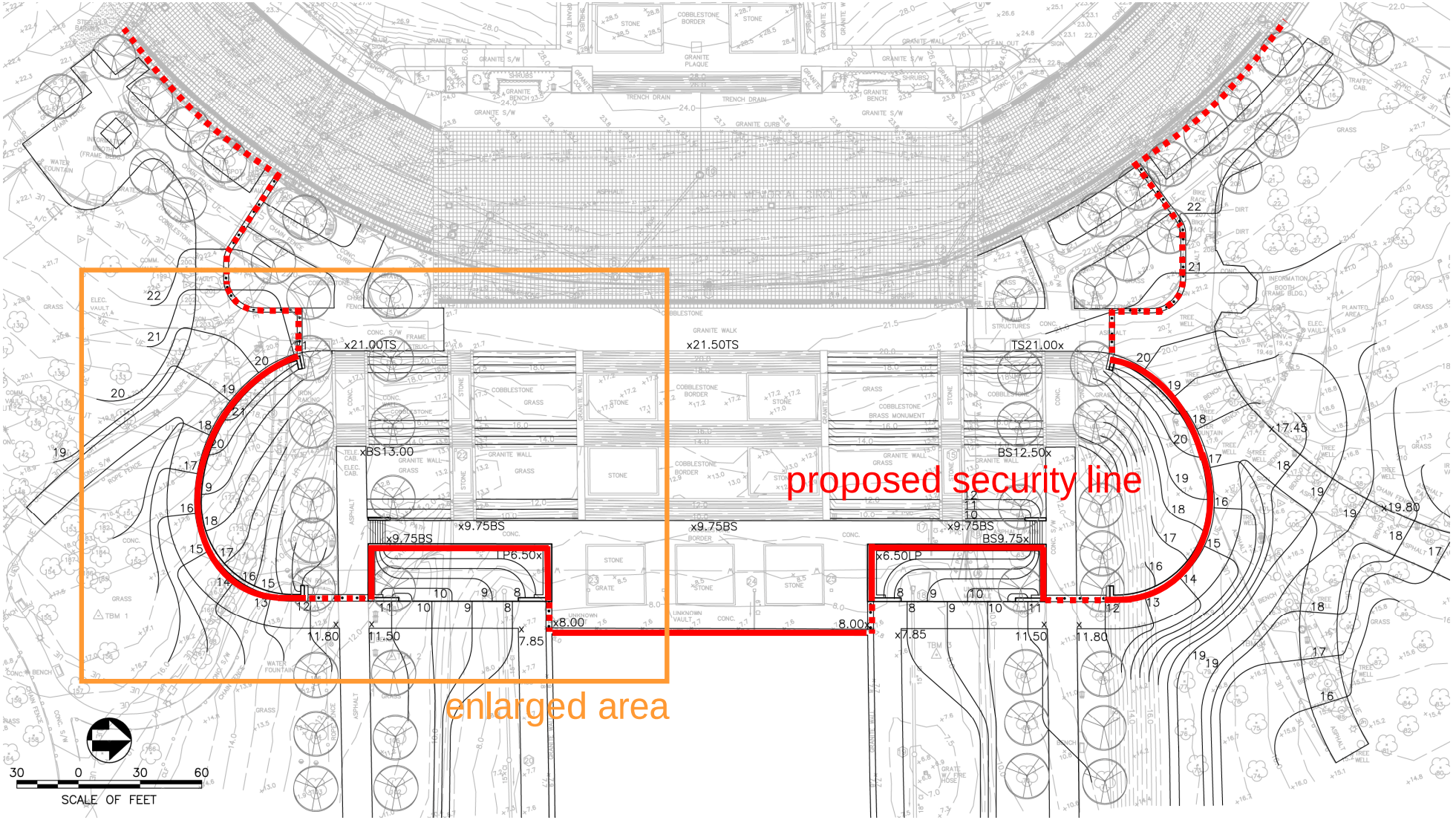




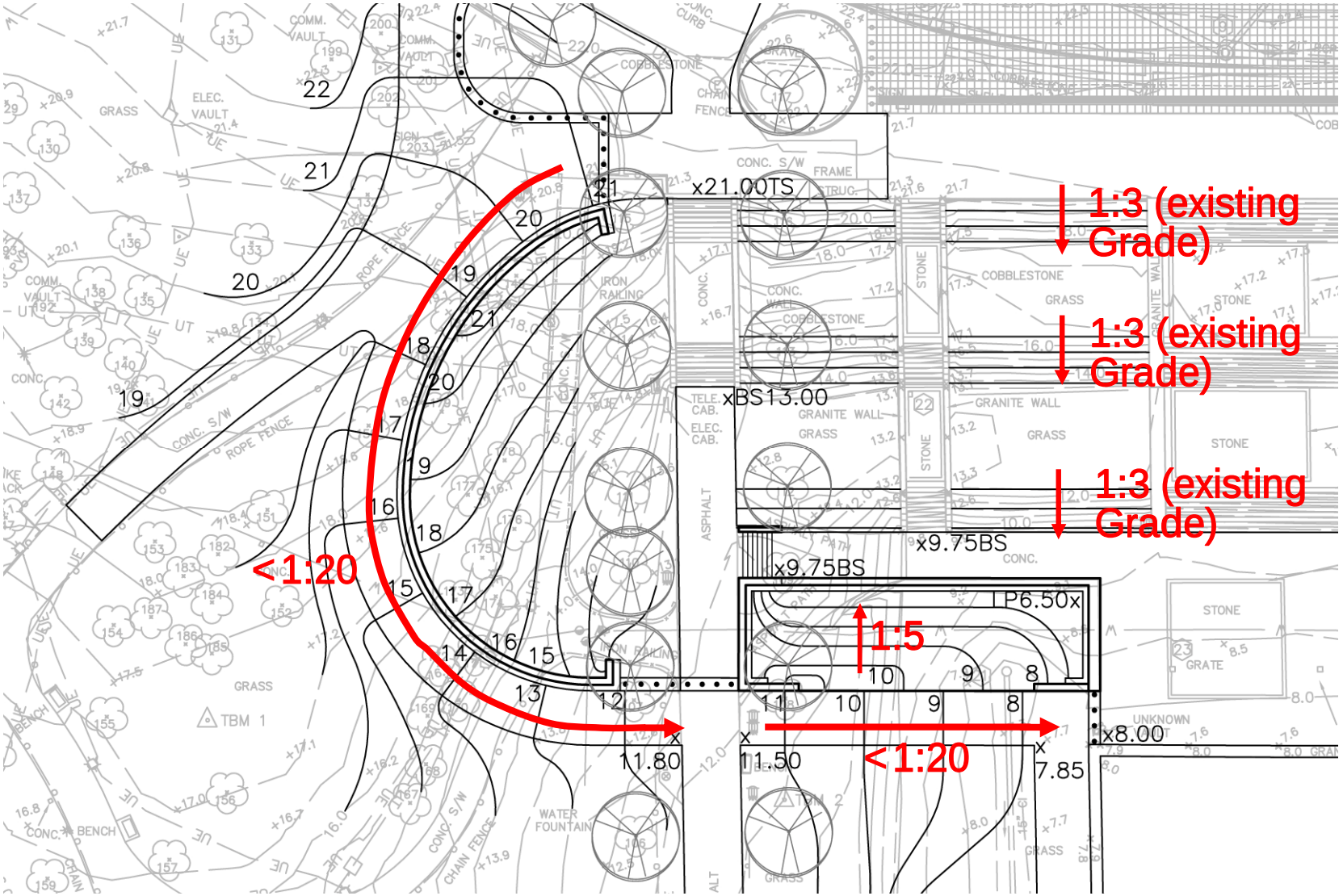
Security Walls Entire Proposed Security Line



Security Barrier & ADA Access



Security Barrier & ADA Access Grade



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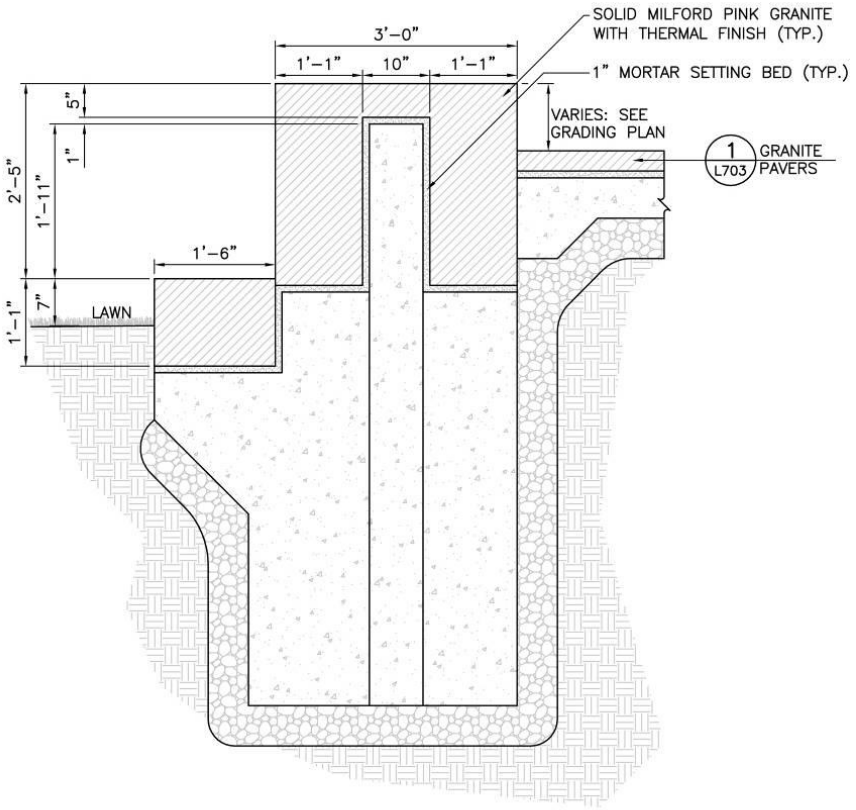
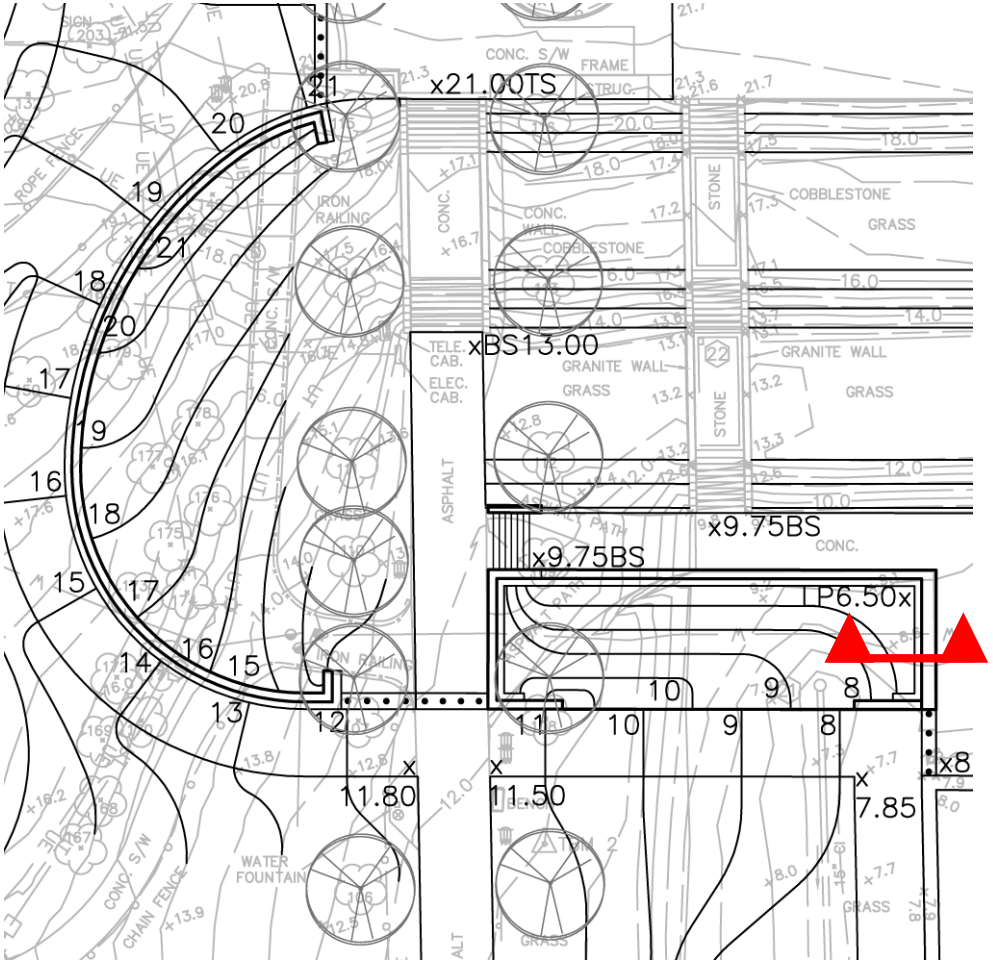
Security Walls Wall Sections

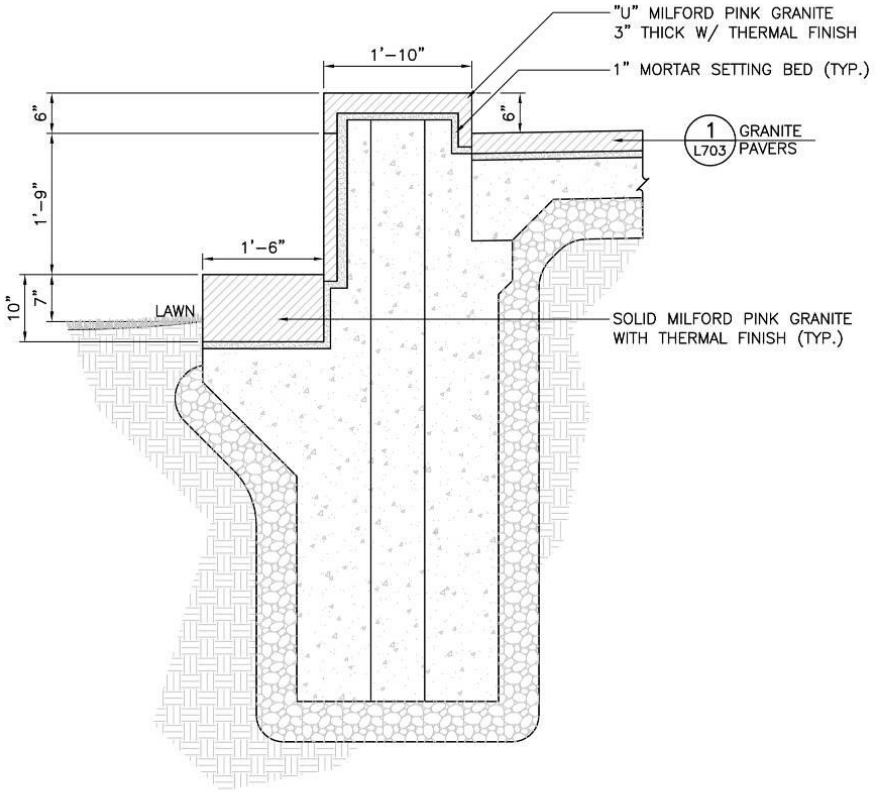


NOTE: SEE STRUCTURAL DRAWINGS FOR ALL FOUNDATIONS, FOOTINGS, AND STEEL REINFORCEMENT.

1 L701 GRANITE BLOCK WALL DETAIL 1"=1'-0"

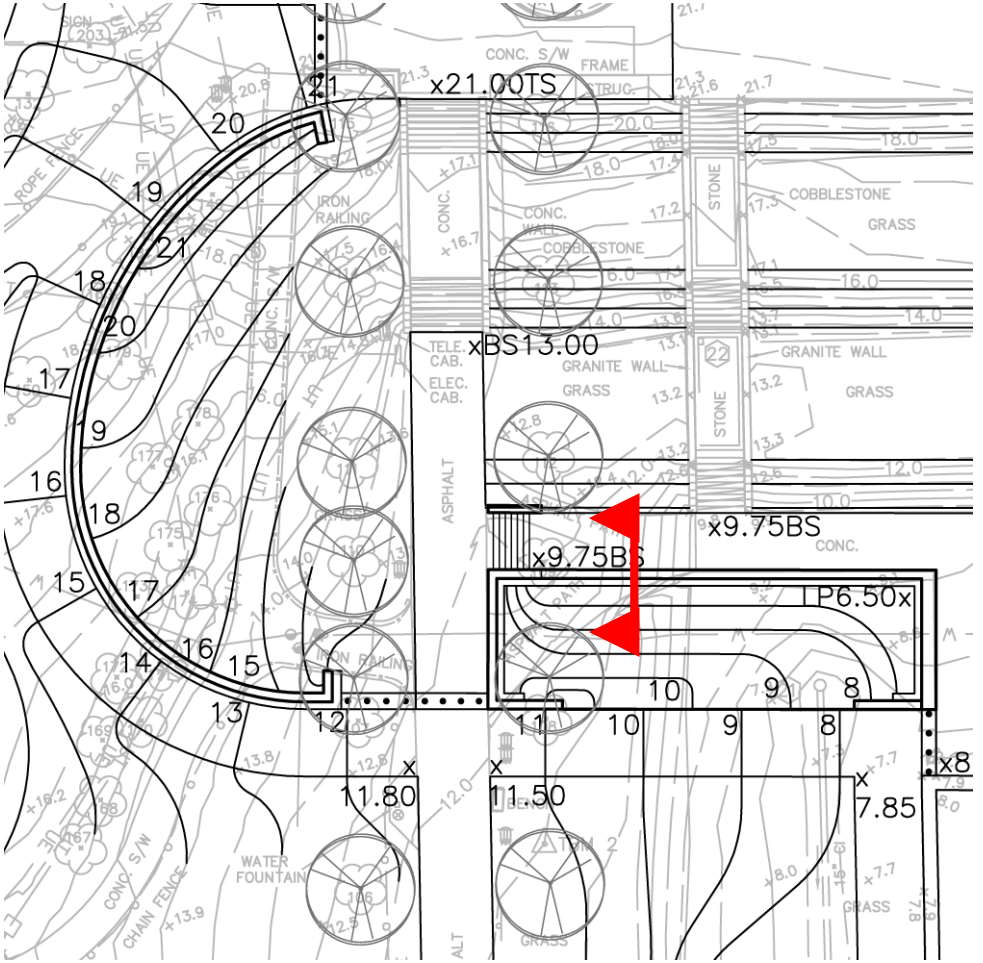


Security Walls Wall Sections

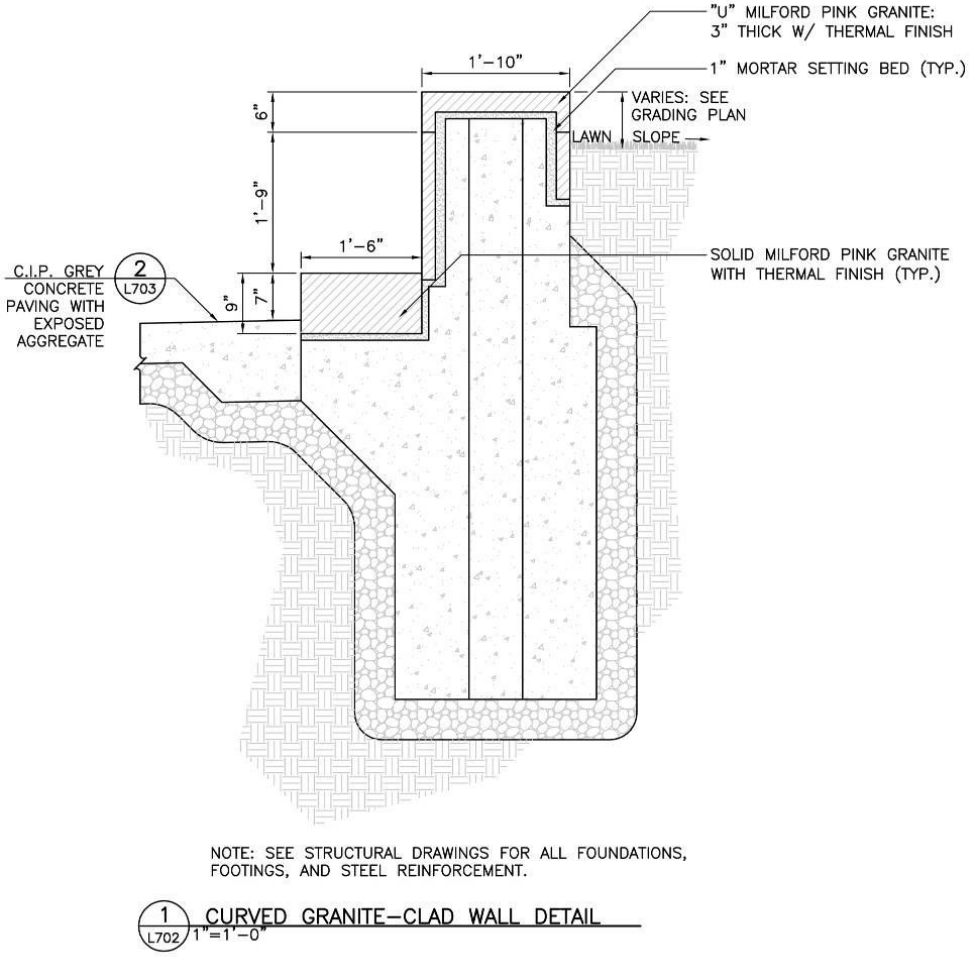


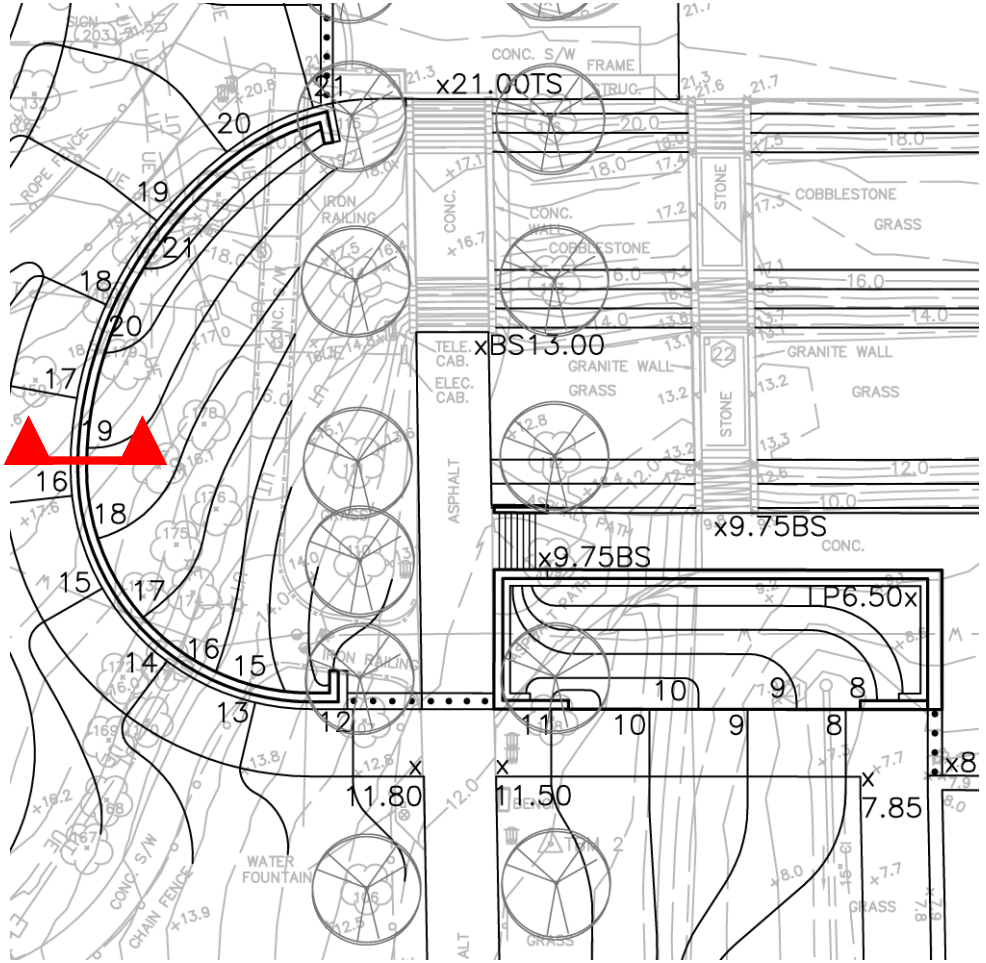
NOTE: SEE STRUCTURAL DRAWINGS FOR ALL FOUNDATIONS, FOOTINGS, AND STEEL REINFORCEMENT.

2 L701 STRAIGHT GRANITE-CLAD WALL DETAIL 1"=1'-0"

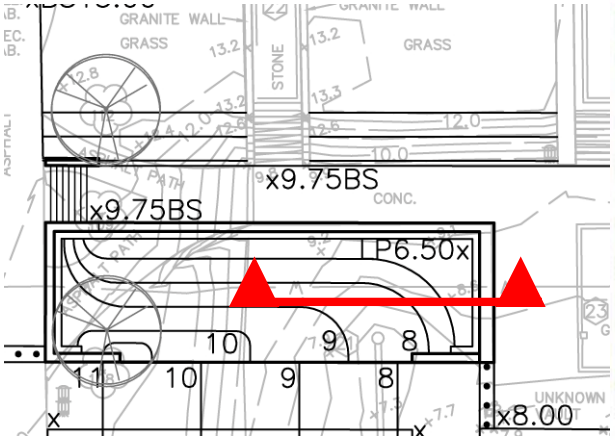


Security Walls Wall Sections

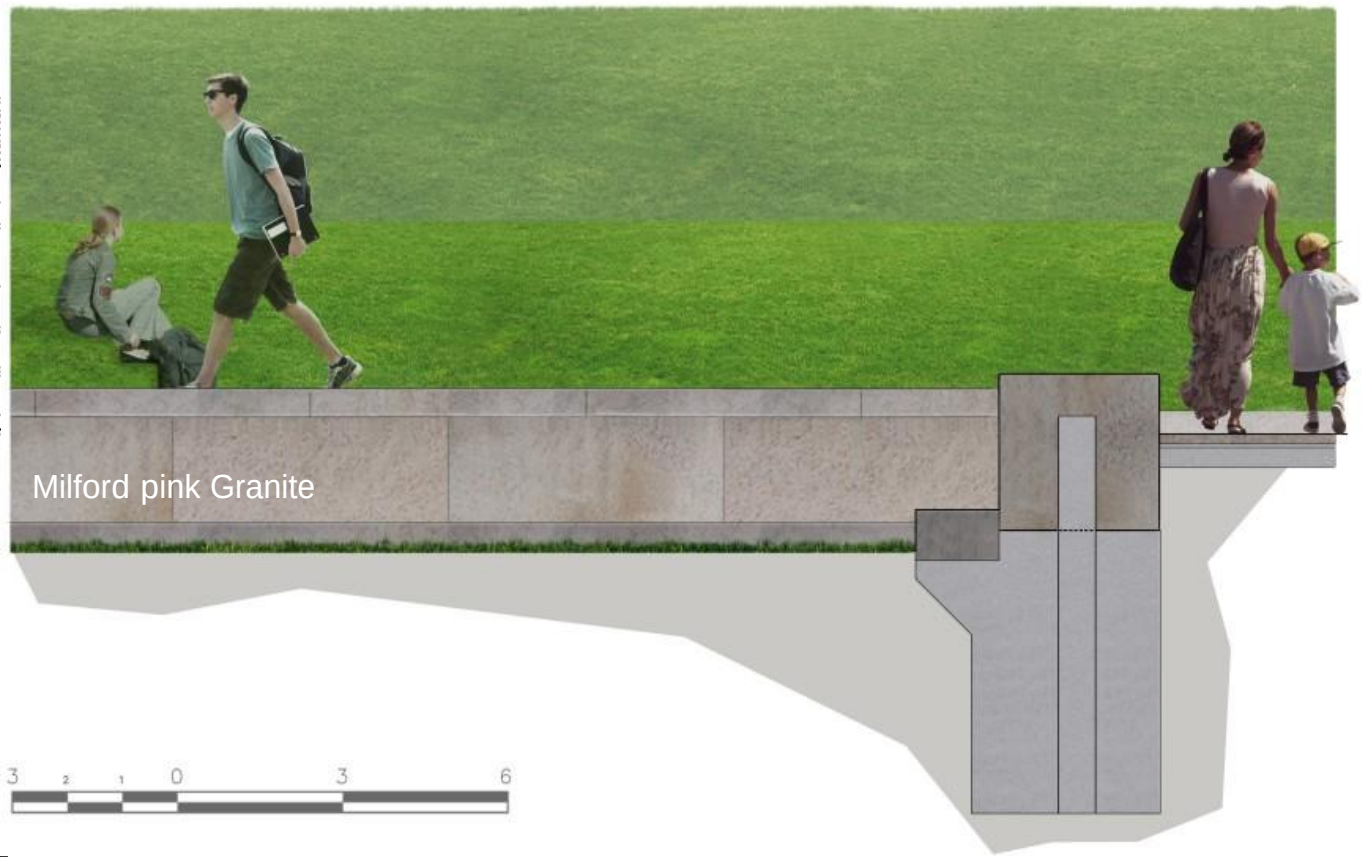




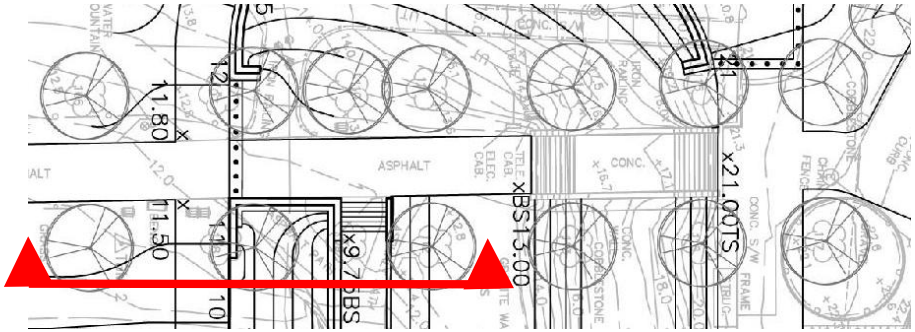
Security Walls Illustrative Wall Section

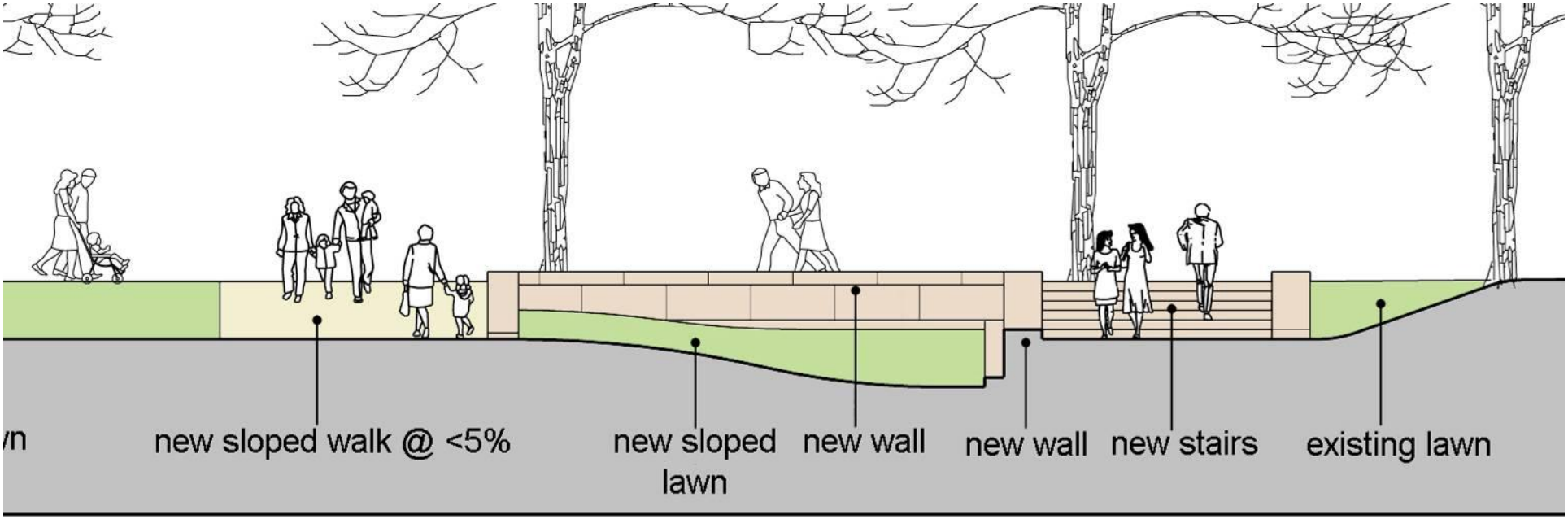


Existing walls at Lower Approachway
Milford Pink Granite



Security Walls Illustrative Wall Section



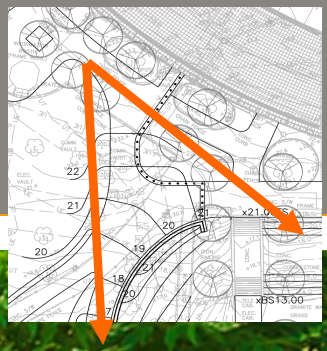


Security Walls Illustrative Rendering (Facing North)

Security Walls Illustrative Rendering

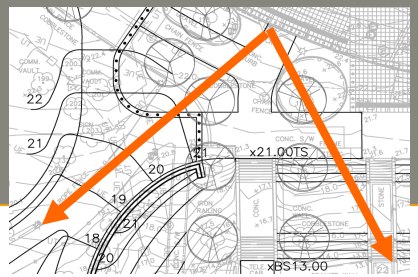
Security Walls Illustrative Rendering

Security Walls View 1

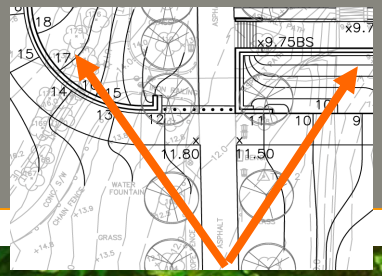


pip grey concrete
with exposed aggregate

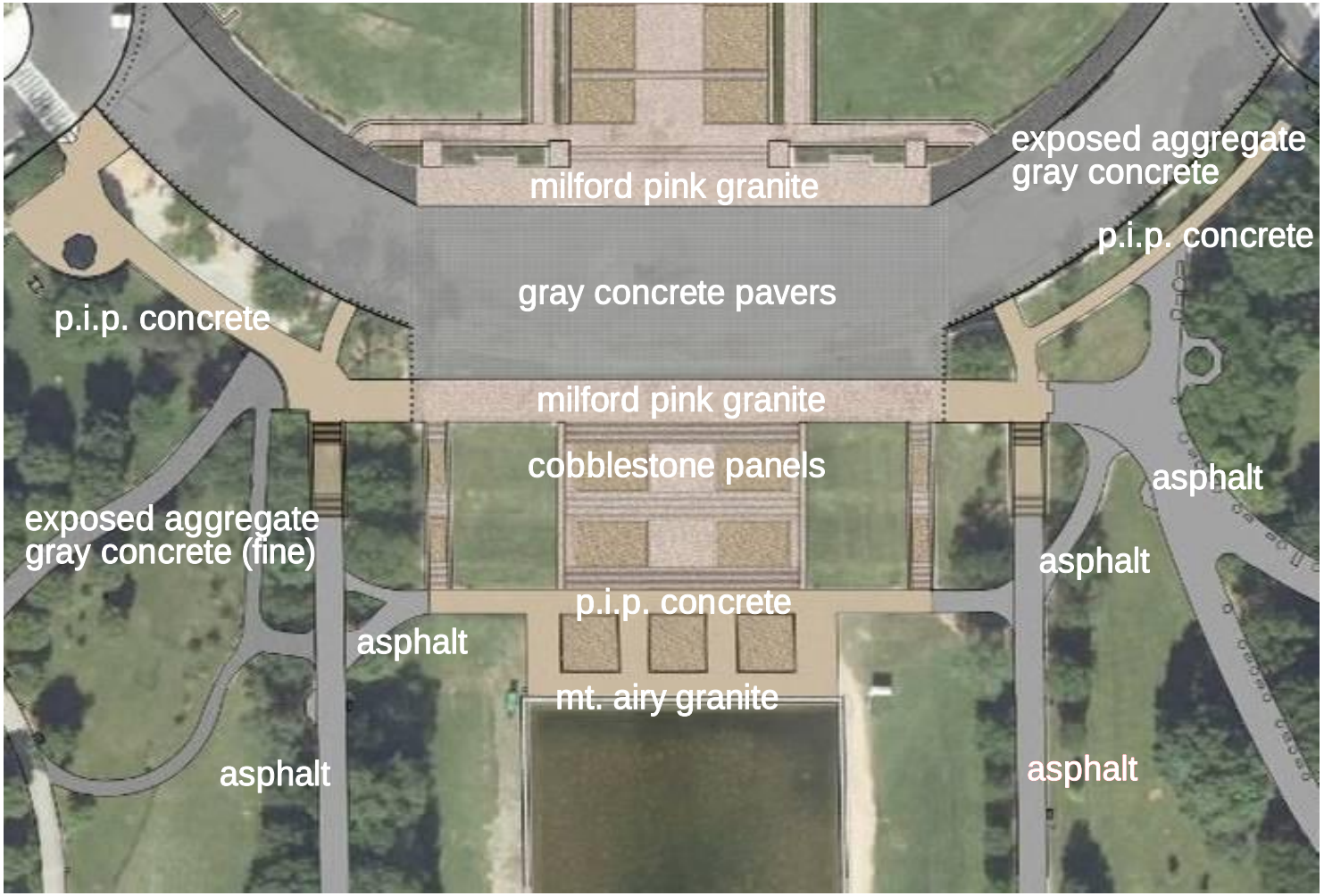
Security Walls View 2

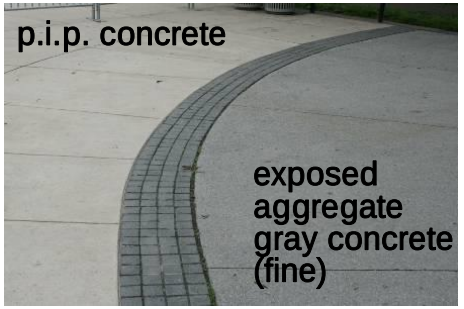


Security Walls View 3

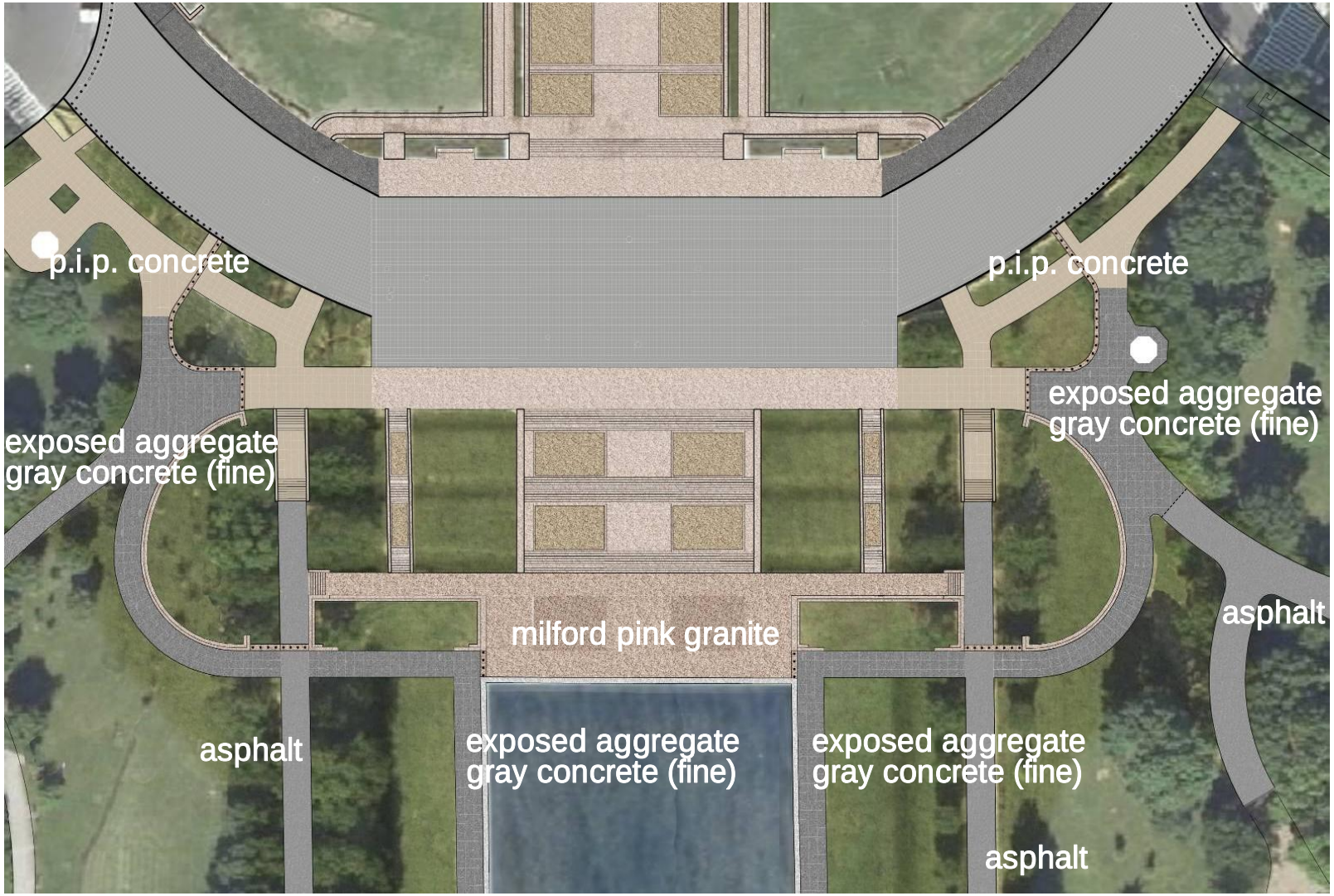


Materials Existing Conditions





Materials West Reflecting Pool Plaza and Walks - Paving Materials

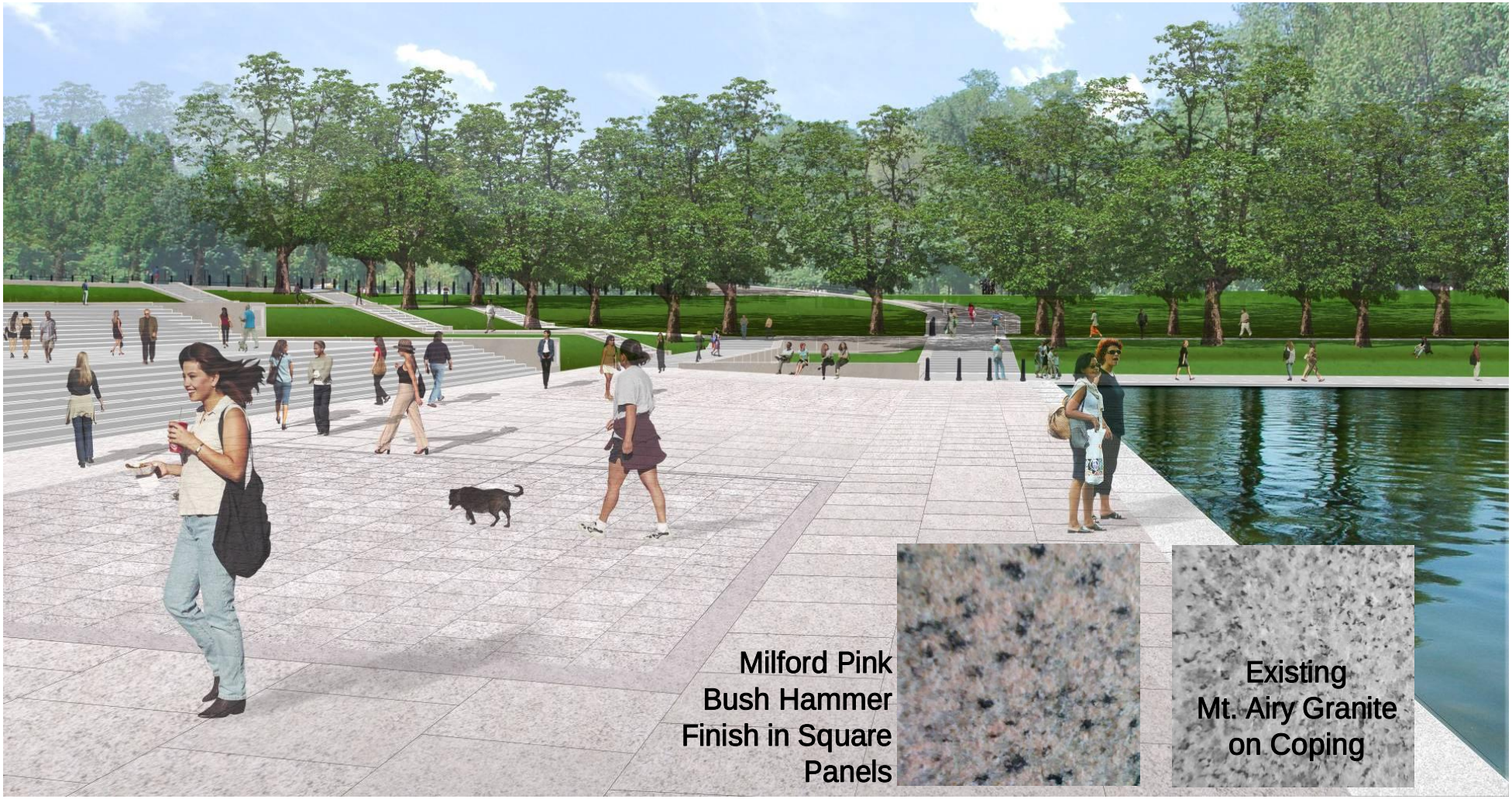


West R. Pool Plaza:
Milford Pink Granite

Pool Walks:
Dark Gray Exposed
Aggregate Concrete

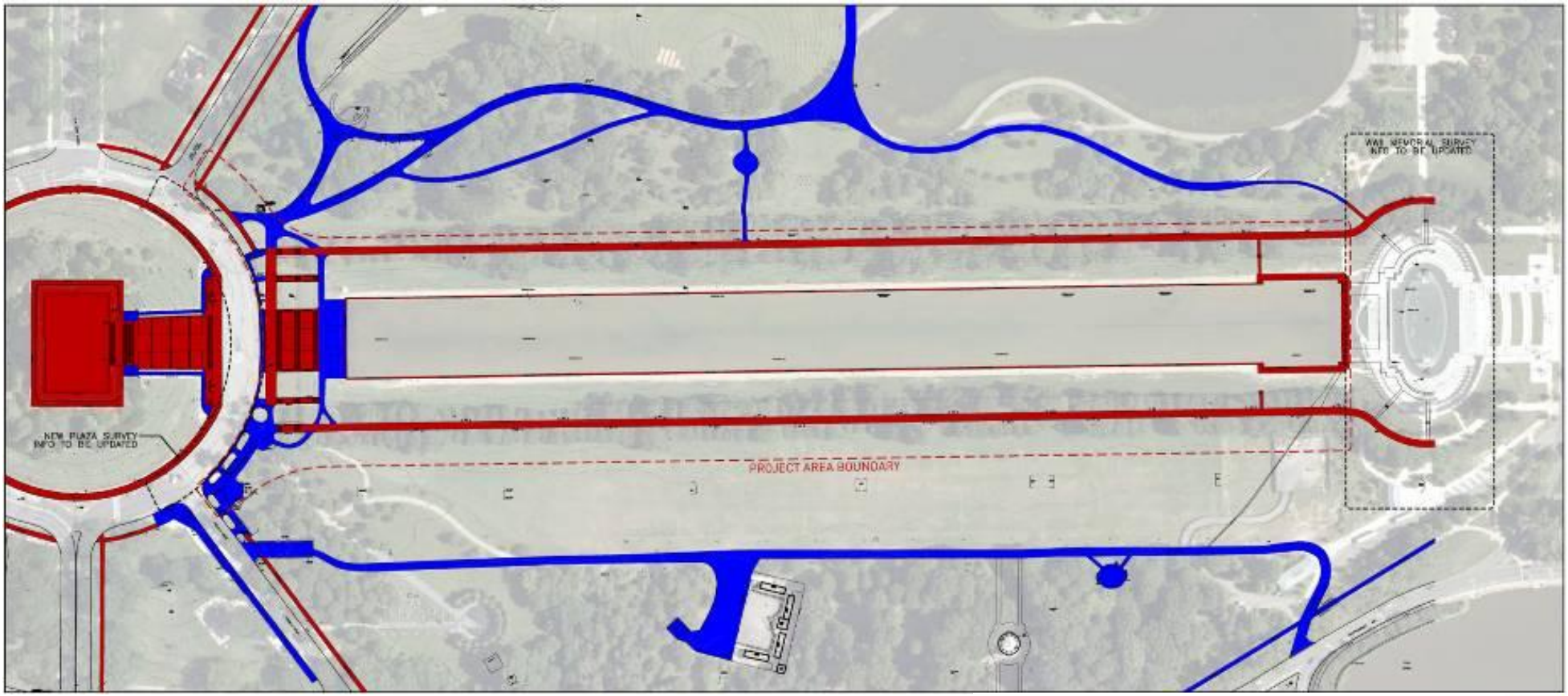
Elm Walks:
Asphalt with
Granite Edge

Materials West Reflecting Pool Plaza



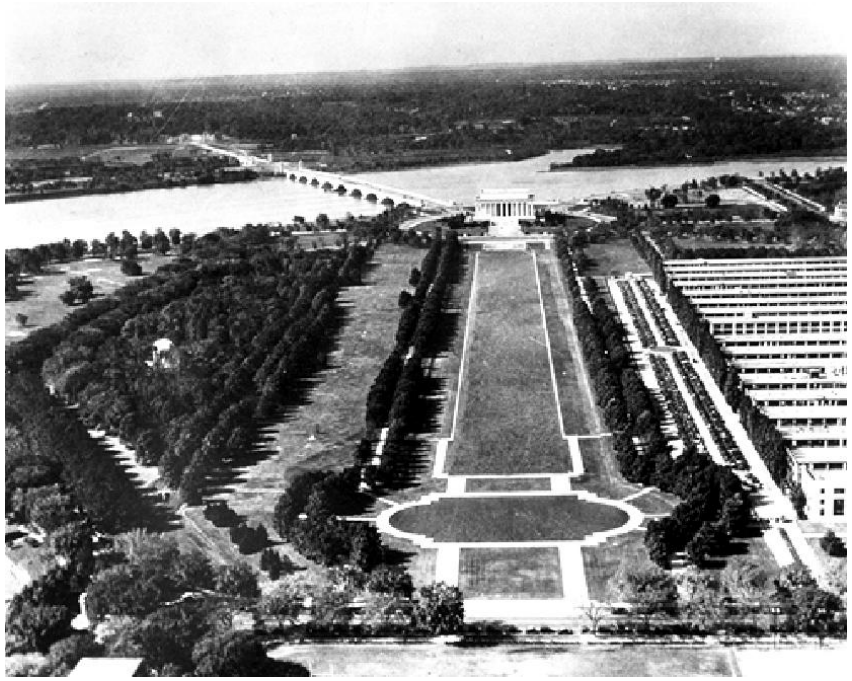
Final Design: Pool Walks Illustrative Plan

Pool Walks Historical Significance



Historical Significance - Cultural Landscape Report (1999) Contributing Features

Pool Walks Historical Significance



Historic Aerial View of Reflecting and Rainbow Pools

- Illustrates historic use of concrete walks adjoining coping of both pools

Historic Image of Rainbow Pool with Adjoining Concrete Walk

Pool Walks Existing Conditions with 15-16' Wide Social Trails - April 2009

Pool Walks Existing Conditions - April 2009

proposed 13'-4" pool walk width (not including pool coping) allows 5-8 people to walk side by side or pass comfortably

- typical width to accommodate two people comfortably or two wheelchairs to pass is 5'-0"

existing 3'-0" wide reflecting pool coping

Pool Walks Stone Dust Option

Pool Walks Stone Dust Option – Maintenance & Appearance Issues

Cleveland Gateway Sports District
– Stone dust was installed over soil zones of trees to allow pedestrian movement
– Stone dust is successful at this site because use is only in warm seasons and principal pedestrian paths are paved walks
– Originally designed by Sasaki in 1994

Charleston Waterfront Park
Charleston, South Carolina
– Stone dust is used successfully on primary walks because it's retained in path by curbs and walls and warm climate negates need for snow removal
– Originally designed by Sasaki in 1982

Place Dauphine
Paris, France
– Stone dust used as expansive surface in plaza
– Like Cleveland Gateway, principal paths are paved walks at perimeter

Pool Walks Stone Dust Option – Maintenance & Appearance Issues

National Sculpture Garden uses granite paving for primary paths. Stone dust used for secondary pathways (photo from 2010-02-23)

Existing stone dust path at National Mall after recent snowfall, showing drainage issues and difficulty of snow removal (photo from 2010-02-26)

Smithsonian Enid A. Haupt Garden – Walks were designed by Sasaki in 1987 using proper stone dust construction techniques. Later changed to brick paving as recommended by accessibility advocates.

Pool & Elm Walks Stone Dust Maintenance & Appearance Issues

1 – 4,000,000 visitors per year to Lincoln and WWII Memorials = heavy, consistent use.

2 – Concrete walk on piles is preferred.

3 – Cannot go back to install piles, if not completed now.

4 – Existing soil is wet and impermeable; must under-drain, will settle, may lose HC accessibility, and snow removal is difficult.

5 – Bicycles will cause ruts.

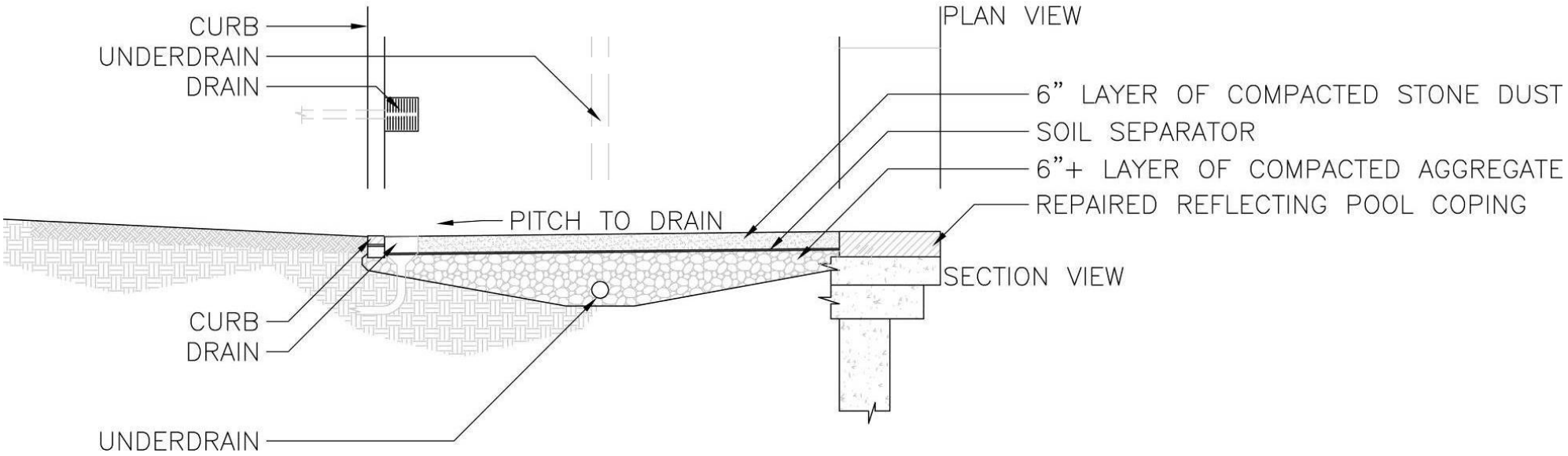
6 – Adjacent to water, stones will get kicked in.

7 – Adjacent to lawn, stones will get kicked in.

8 – Need curb to contain stone dust, potential trip-hazard.

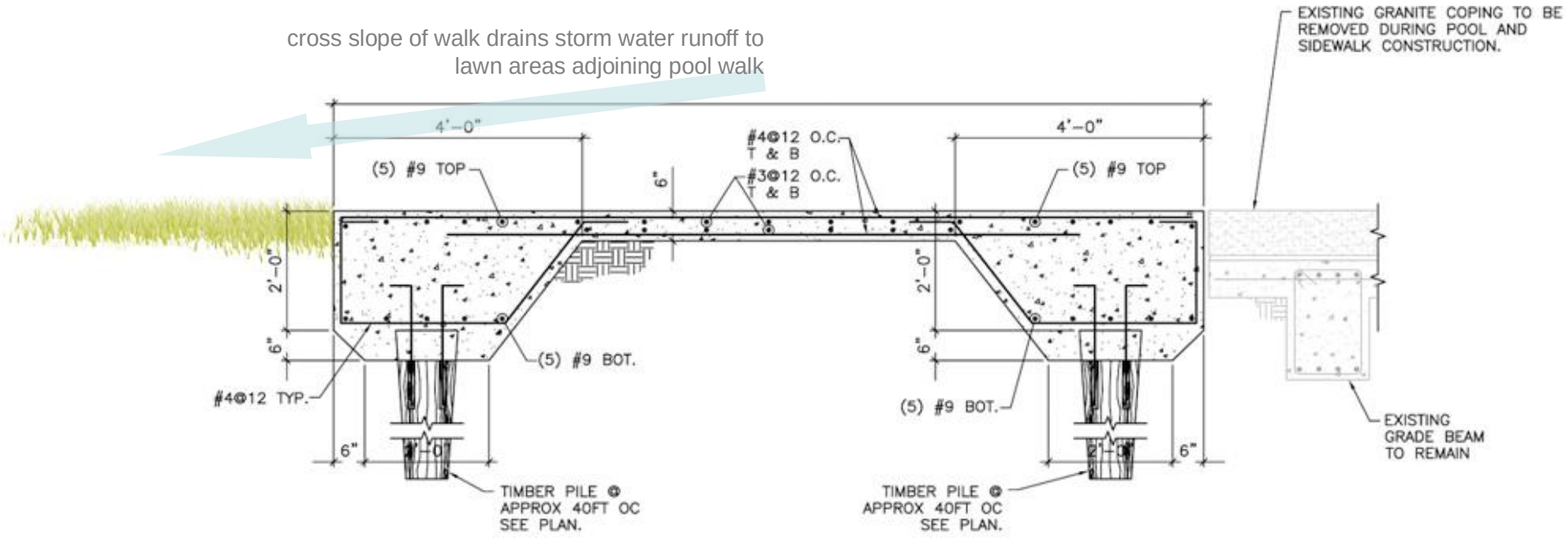
9 – Curb requires drain inlets on walk.

10 – Elm walks are only vehicular access for police, fire, ambulance, and event vehicles. Pavement must allow access in all weather.



Pool Walks Recommended Option

Pool Walks Recommended Option

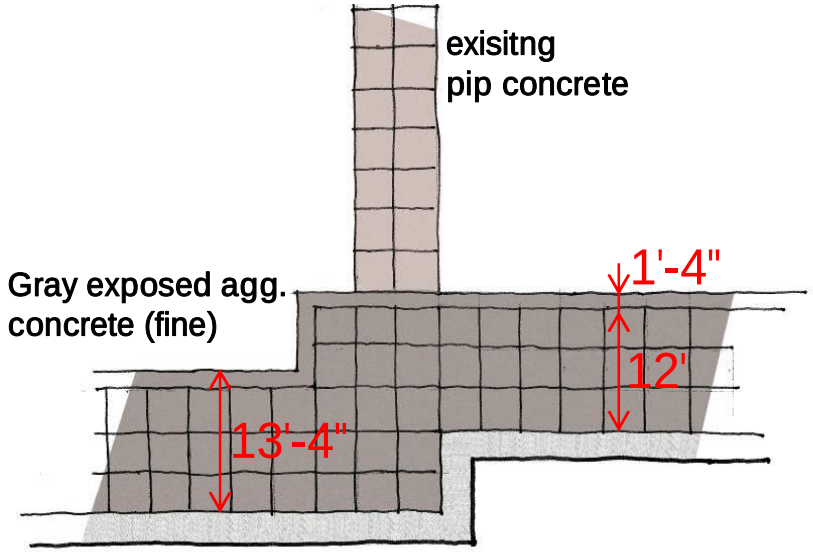


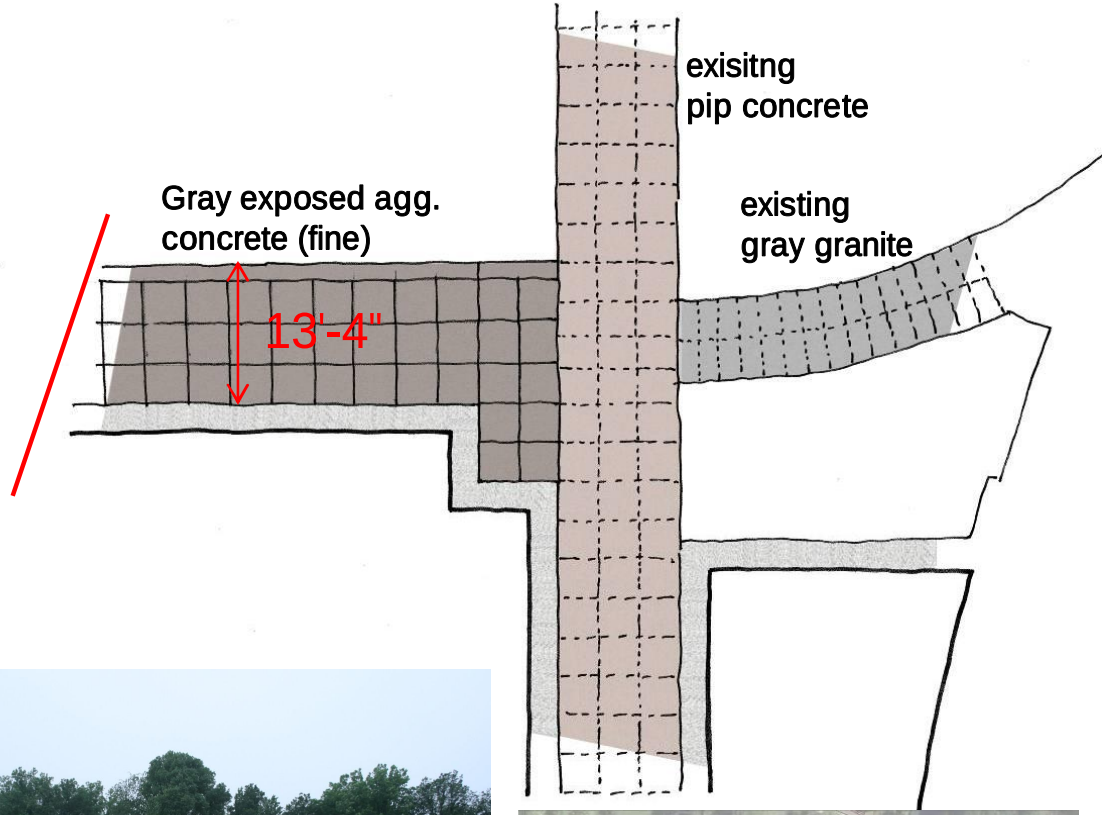
Pool Walks Existing Conditions Plan at East End

Pool Walks Existing Conditions At East End

Pool Walks Recommended Option: Plan at East End

Pool Walks Detail Plan Option 2





Final Design: Elm Walks Existing Conditions

Elm Walks Surface Material - Concrete Option

15' P.I.P. Concrete Path
(Historic Paving Pattern to Match Adjoining)

New Benches
(to Match Existing and New Arrangement)

Elm Walks Surface Material – Asphalt – Recommended Option

15' Asphalt Walk

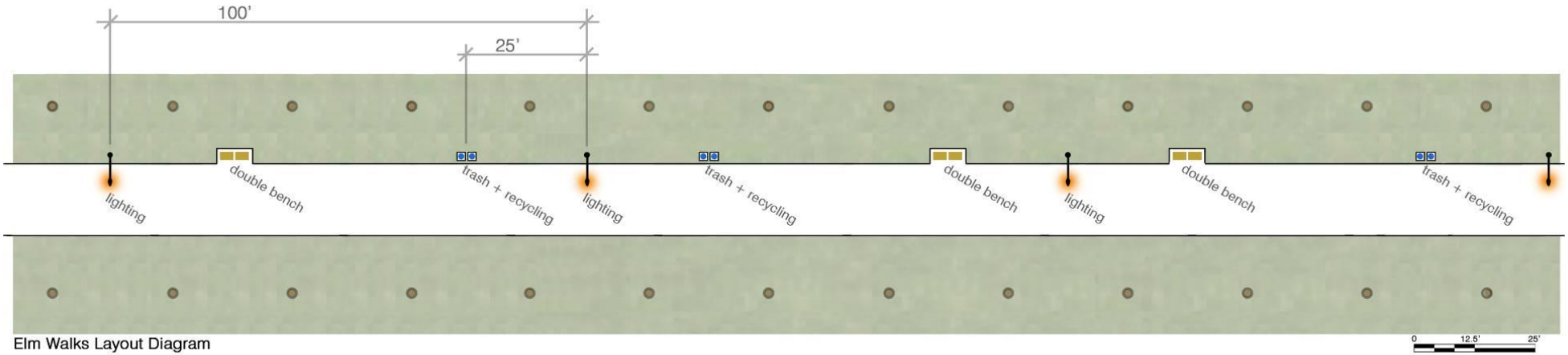
Flush 6" Granite Edging

New Benches
(to Match Existing and New Arrangement)

Elm Walks Existing Conditions

Asphalt is the recommended option for the Elm Walks due to National Park Service positive experience with the material. Since the bicentennial, NPS has found asphalt easy to maintain and durable at this location. Asphalt is flexible pavement that responds well to both pedestrians and occasional vehicular traffic. Additionally, traditional material for park pathways and blends with the landscape better than concrete.

Elm Walks Proposed Layout Diagram



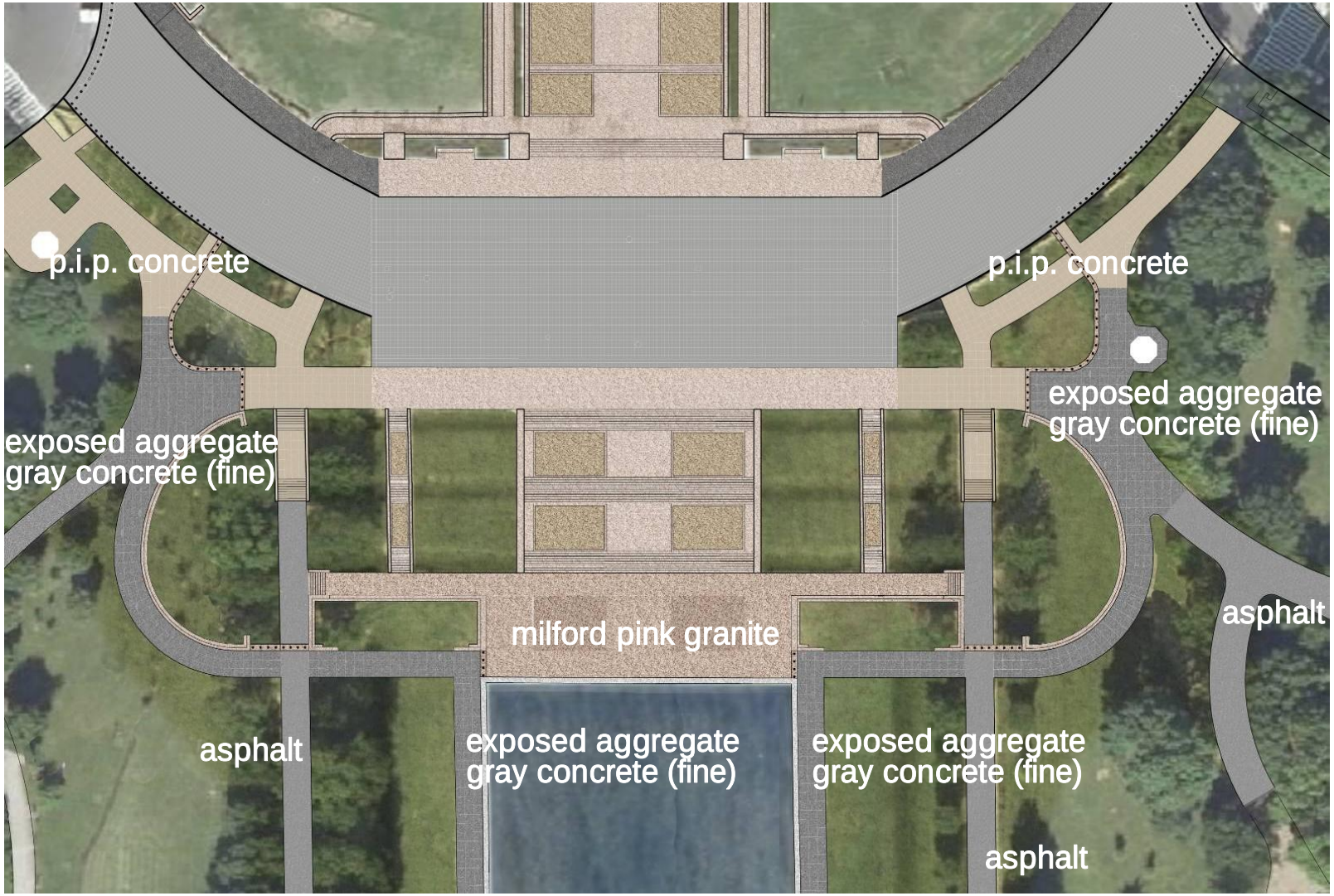
Elm Walks Layout Diagram

Elm Walks Lighting: Philips Lumec – LED – Dark Sky Compliant

original pole option

revised pole option

Materials Preferred Option Summary



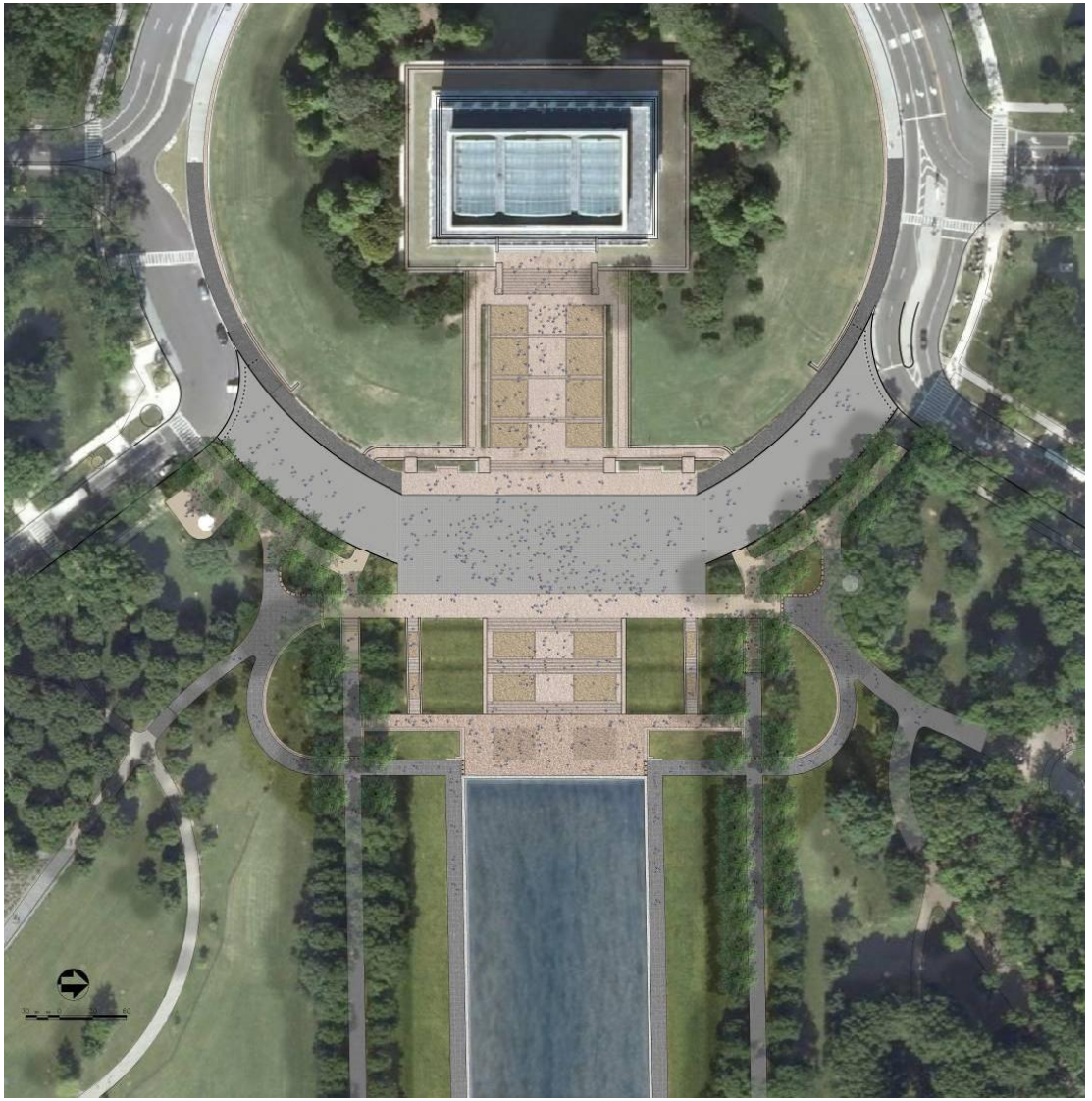
Security Walls:
Milford Pink Granite

West R. Pool Plaza:
Milford Pink Granite

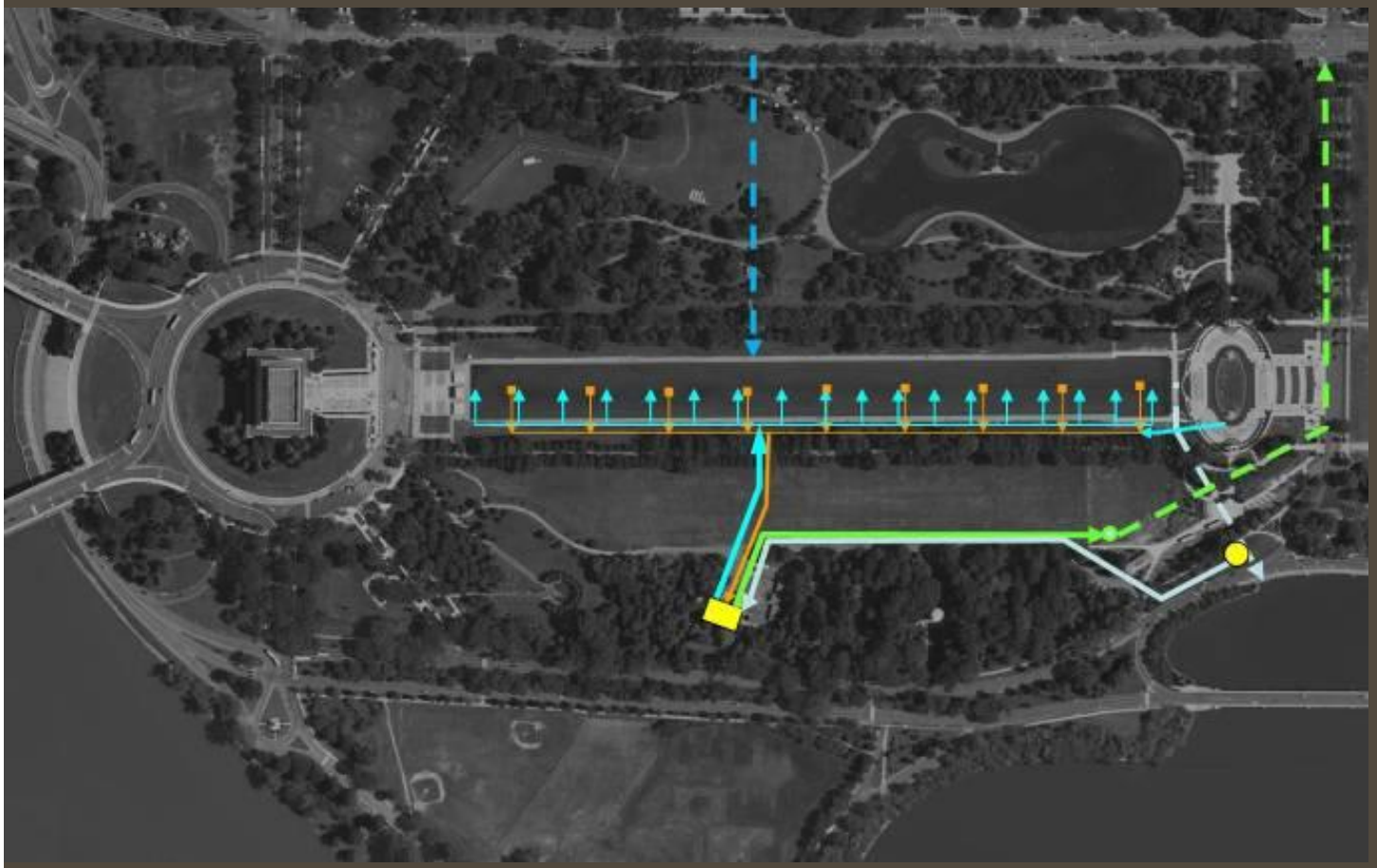
Pool Walks:
Dark Gray Exposed Aggregate Concrete

Elm Walks:
Asphalt with Granite Edge

Illustrative Plan Preferred Option



Water System REVISED PREFERRED OPTION



Water Supply (proposed)
Water Supply (existing)
Tidal Intake (proposed)
Tidal Discharge (existing)
Sanitary Sewer Discharge (existing)
Sanitary Sewer connection (proposed)
Return Line (proposed)
Water Supply pumping station (proposed)
Water Treatment Structure (proposed)

PHYSICAL PARAMETERS

- Tidal Basin Intake
- Municipal Supply for Supplemental/Back Up
- Treated Groundwater from WWII Memorial for Makeup
- Recirculation of pool water

REQUIRED STRUCTURES

- 40x60’ filtration structure
- Below ground pump house

Water Treatment Structure proposed location

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National Park Service

Water Treatment Structure visual character

USPP Maintenance Complex

Water Treatment Structure visual character

USPP Administrative Trailer

Water Treatment Structure visual character

USPP Stables

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National Park Service

Water Treatment Structure visualization

Water Treatment Structure visualization

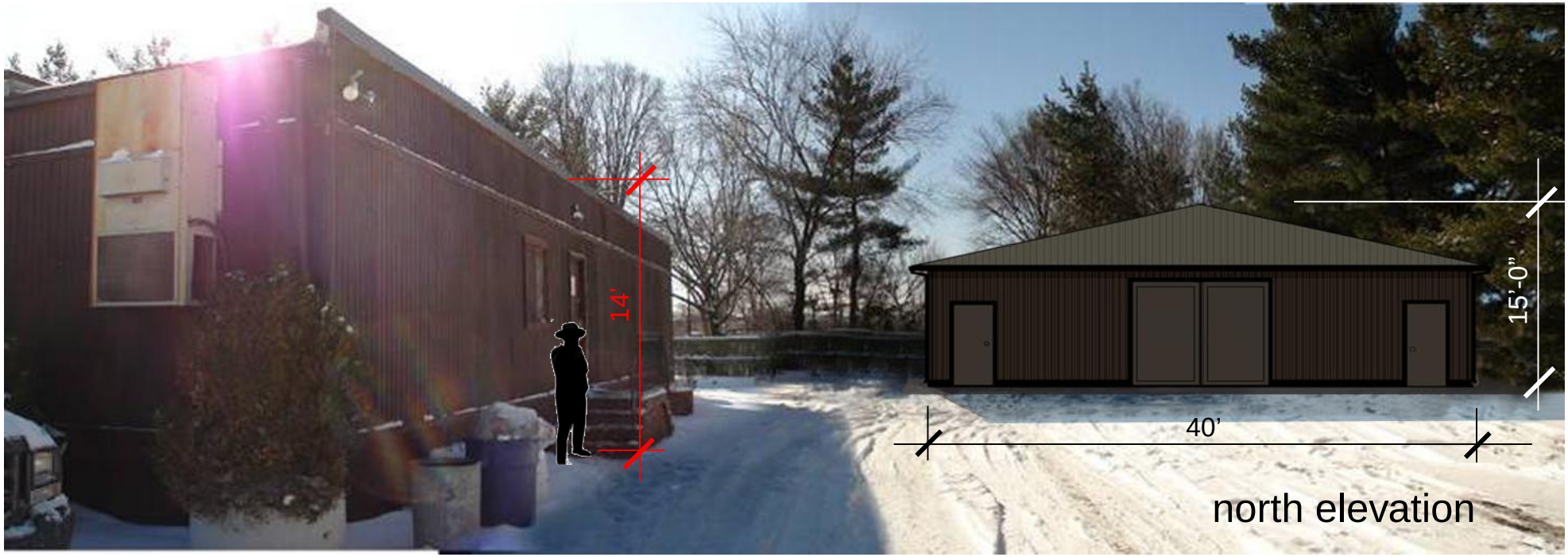
Water Treatment Structure visualization

Water Treatment Structure visualization

Water Treatment Structure visualization

Water Treatment Structure elevation

Water Treatment Structure elevation



end