

U.S. National Park Service

The Mall: Irrigation, Drainage, Water Collection and Relandscaping U.S. Commission of Fine Arts Concept Review

Task Order Number: T2011100481

Phases 2 and 3

July 2012



The Mall: Irrigation, Drainage, Water Collection
and Relandscaping
National Mall and Memorial Parks Washington, DC





- A Cultural Legacy
- An Iconic Destination
- A National Gathering Place





The Consequences

- Soil Compaction
- Poor Drainage
- Poor quality turf with inconsistent coverage
- High volume of dust from degraded walks and turf areas

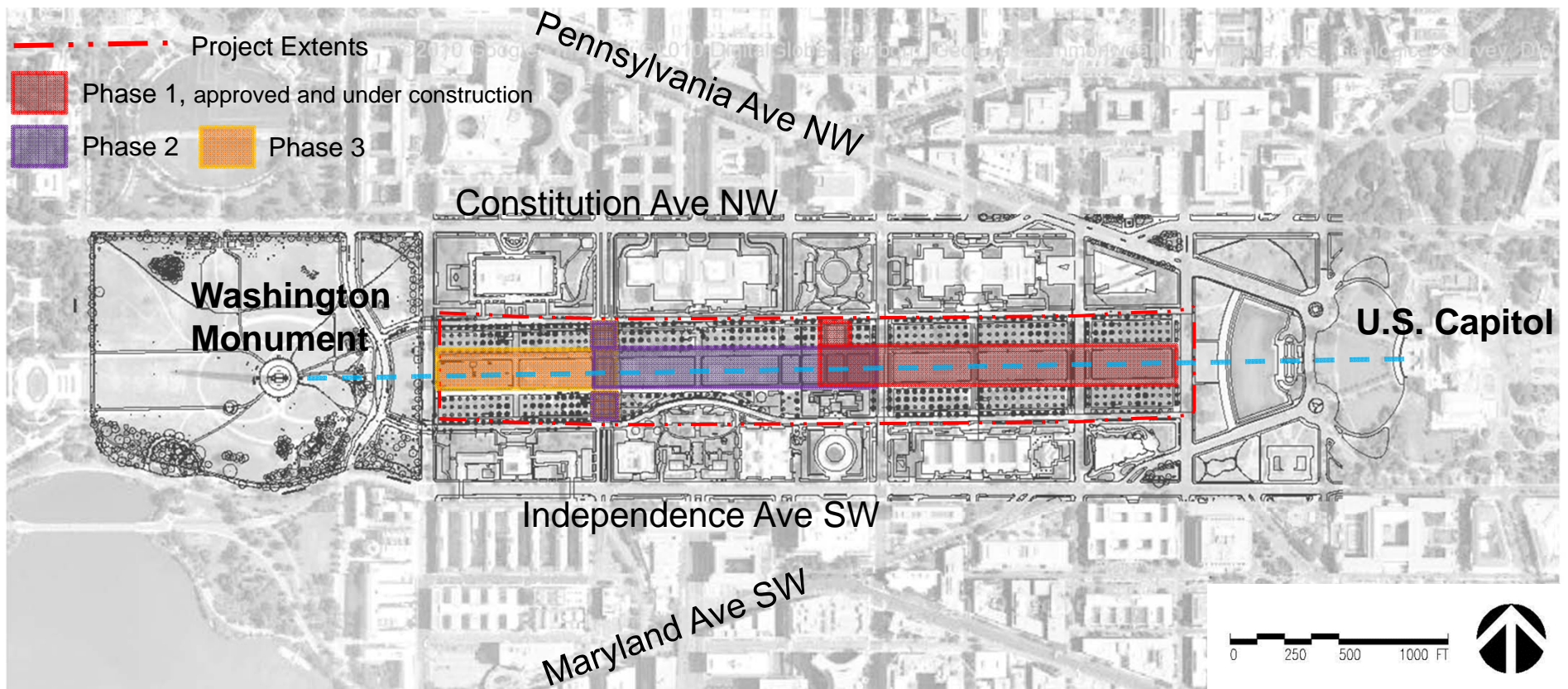


Design Goals:

- 1 – Aesthetics
- 2 – Functionality and Practicality
- 3 – Sustainability
- 4 – Sensitivity to Historic Context

6 primary proposed elements:

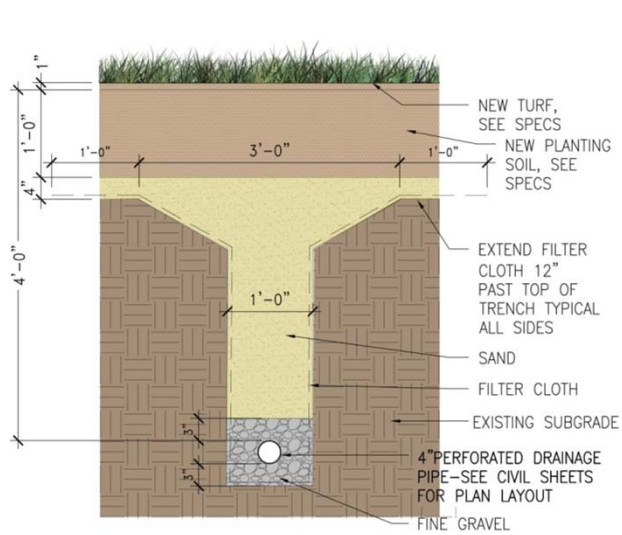
- 1 – 18" Granite Curbing
- 2 – Rounded Corners (15' Radius)
- 3 – Compaction-resistant Soil System
- 4 – Revised Grading
- 5 – Irrigation and Water Storage
- 6 – Walkway Layout



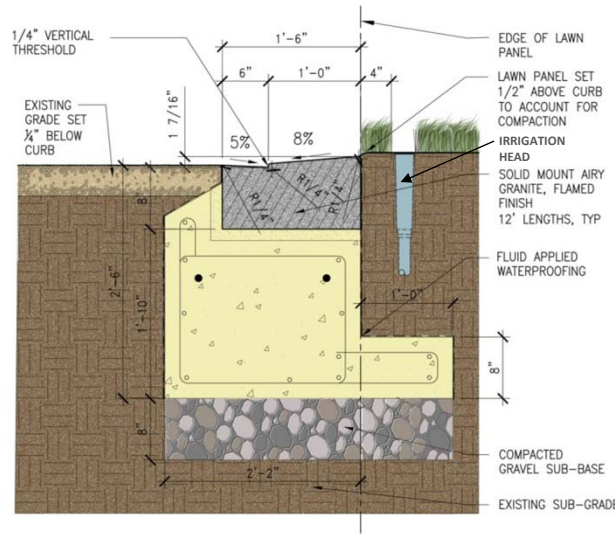
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PHASING PLAN

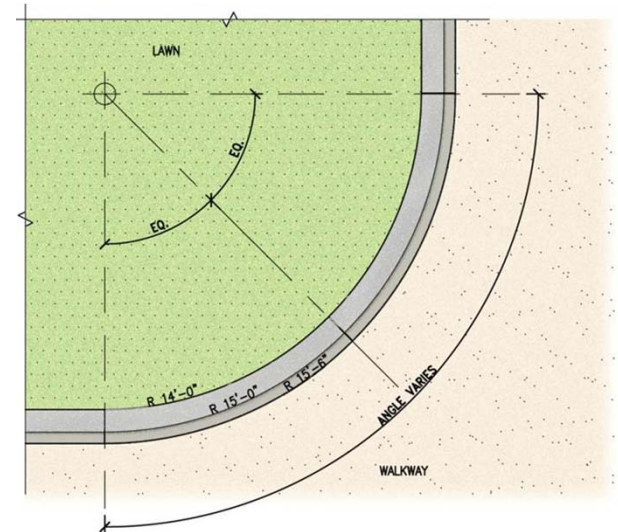




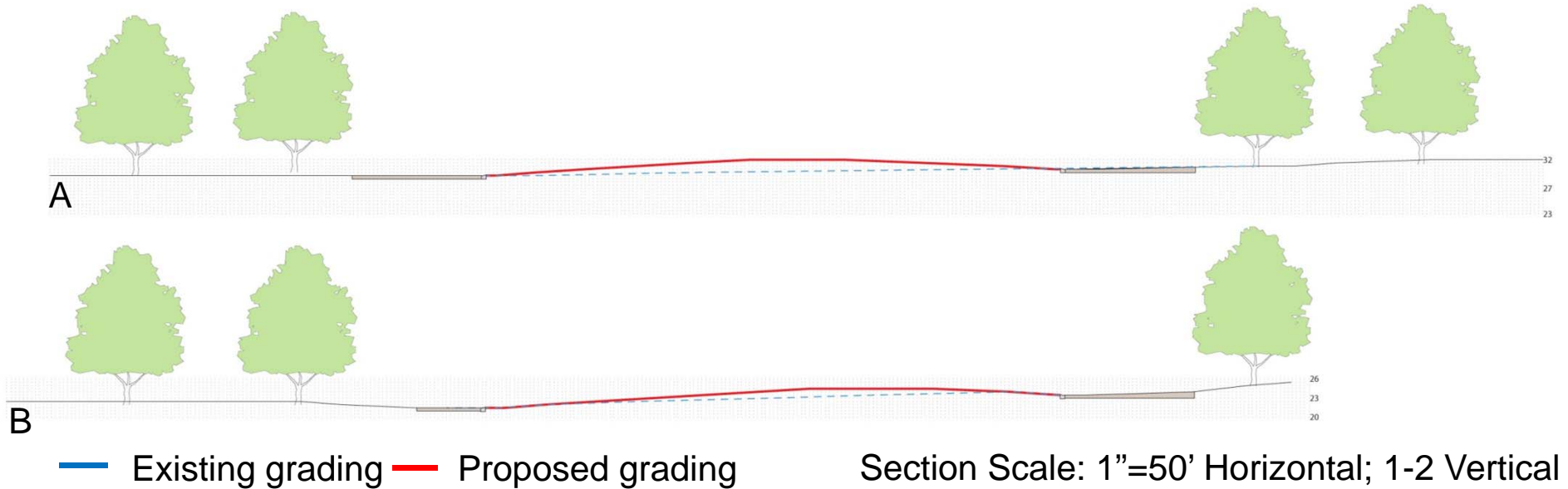
LAWN PANEL DRAINAGE CHANNEL



CURB AND GUTTER



CURB ENLARGEMENT PLAN





Panel 33 reconstruction, looking east



Panel 33 reconstruction, looking west



Construction of Cistern 3



Panel 33 curb and sod mock up



NATIONAL PARK SERVICE

<http://www.designingtheparks.org>

Designing the Parks: Reverence for Place and Sustainability

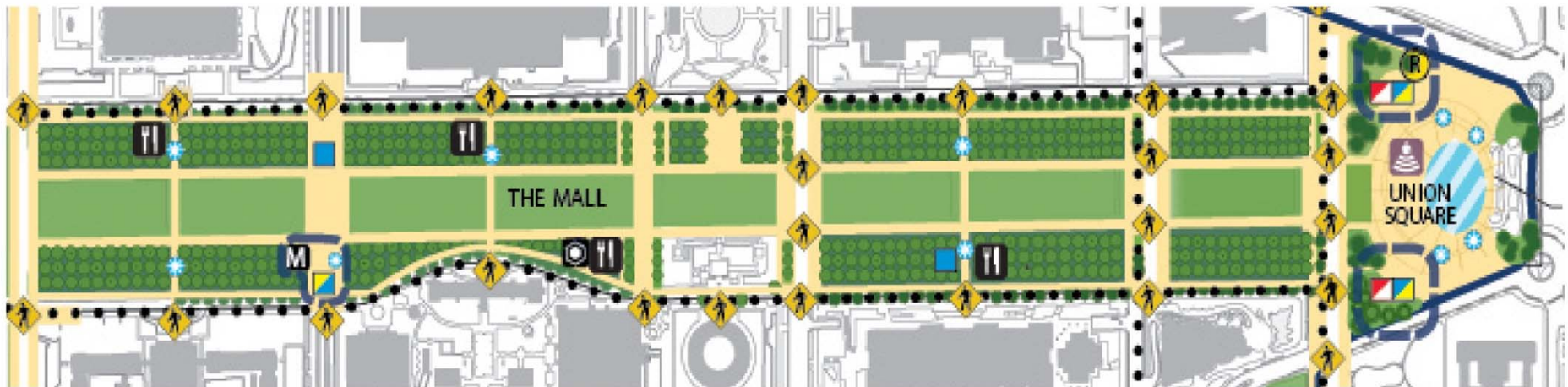
- Design and build for multiple uses.
- Create flexible spaces. Flexibility is needed for viability.
- Design for simplicity /maintenance ease.
- Be overt - green design should shine.
- Reuse wherever possible and practical.
- Change may be needed for the resource to survive.
- Use the historic resources to structure contemporary design.
- Use transportation effectively, sensitively. Make it a good experience.
- Elevate the human spirit through sensitive and integrated resource planning .

- Responsibility to future generations.
- Capture and preserve the spirit of place.
- Understand the place, including the past and its inconvenient truths.
- Acknowledge a site's complexity and embrace it.
- Protect the essential character.
- Opportunities for renewal
- Assess the resource; know what's flexible and what cannot change.
- Value a site's history and purpose.
- Preserve design spirit but allow things to evolve.
- Respect historic design principles while adapting to future needs.



“The National Mall must be refurbished so that its treasured memorials and historic landscapes can be preserved, very high levels of use can be sustained, and the needs of visitors can be met.”

- The National Mall Plan, 2010



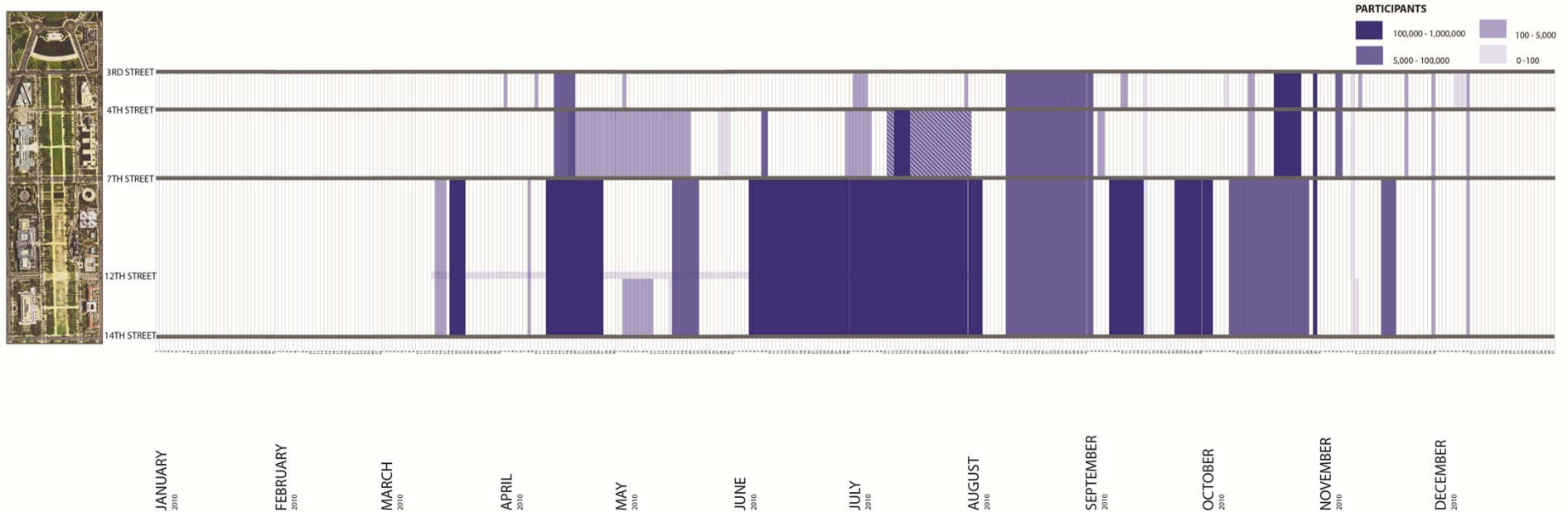
- Increased paved areas to facilitate events - *NMP*
- NMP was conceptual and did not dimension walks or areas
- NMP FEIS added event data but did not revise conceptual map
- 2011 – NPS examined event details (tent sizes and groupings) – revealed need for distance between 3-4 temporary facility groupings to avoid audio distraction
- CFR update, 2010, added inaugural media space of 150x200'
- Phase 1 did not include NMP concepts since the design work preceded signing the NMP Record of Decision.
- Union Square, a critical component of the National Mall Plan to absorb event use from the Mall was transferred to the Architect of the Capitol in the appropriations bill on Dec 23, 2011.





The National Mall, April 2010

- Temporary Event structures cause the death of the turf in 9 days when covered.
- Temporary Event structures placed on paving is a sustainable practice that will protect the turf.





SMALL STRUCTURES

10' – 30'

20-40 COMMON PER EVENT



MEDIUM STRUCTURES

30' – 60'

8-10 COMMON PER EVENT



LARGE STRUCTURES

60' – 80'

3-5 COMMON PER EVENT



EXTRA LARGE STRUCTURES

> 80'

1-4 COMMON PER EVENT

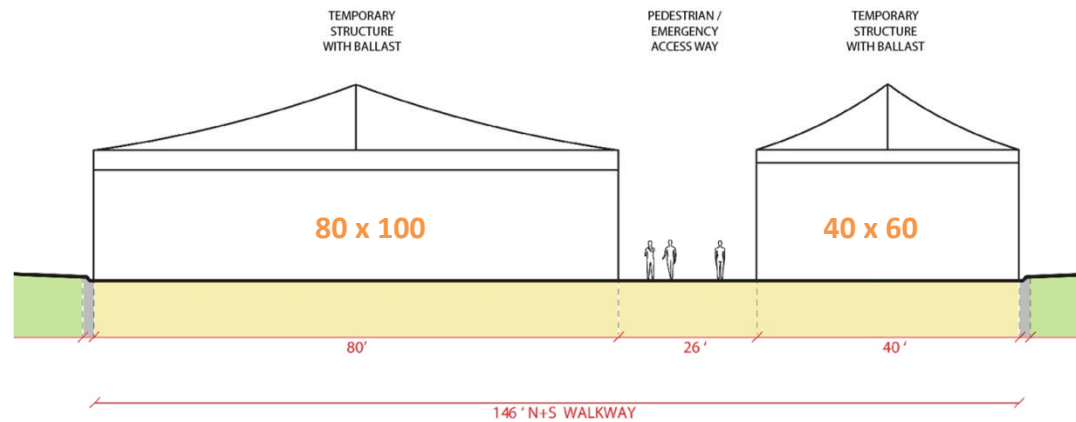
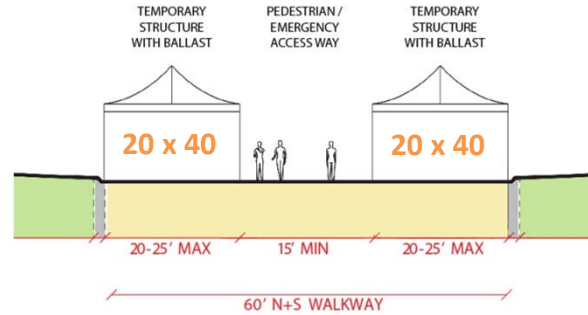
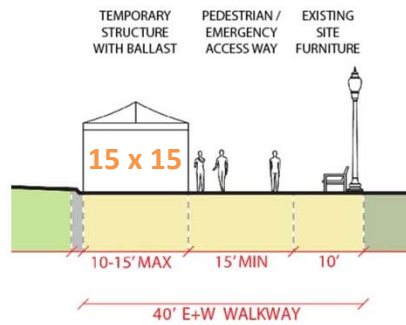
EVENTS:

- Ball on the Mall
- Walk for the Homeless
- Earth Day
- Comedy Central Rally
- GW Graduation
- Book Festival
- Folklife Festival

OTHER ELEMENTS:

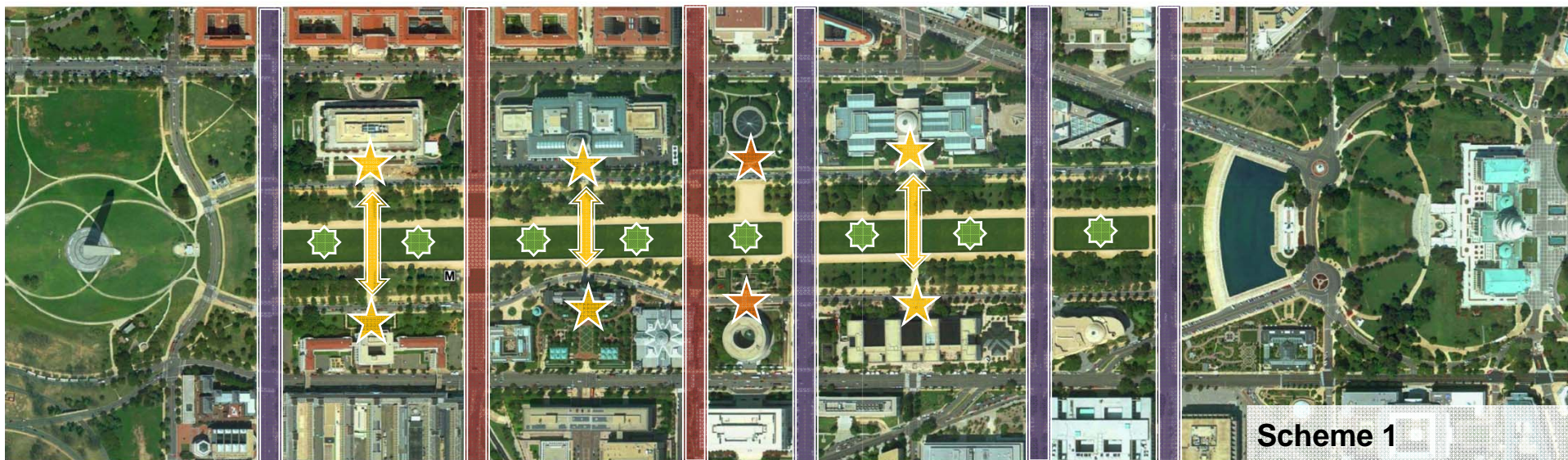
- | | | | | |
|----------------------|--------------------|--------------------|----------------------------|----------------|
| • Production Storage | • Stages | • Generators | • Water Trucks | • Fencings |
| • Media Trailers | • Backstage | • Jumbotrons | • Press Risers | • Chairs |
| • Portable Toilets | • Stage Extensions | • Satellite Trucks | • Light and Sound Trailers | • Dumpsters |
| | | | | • Fuel Storage |







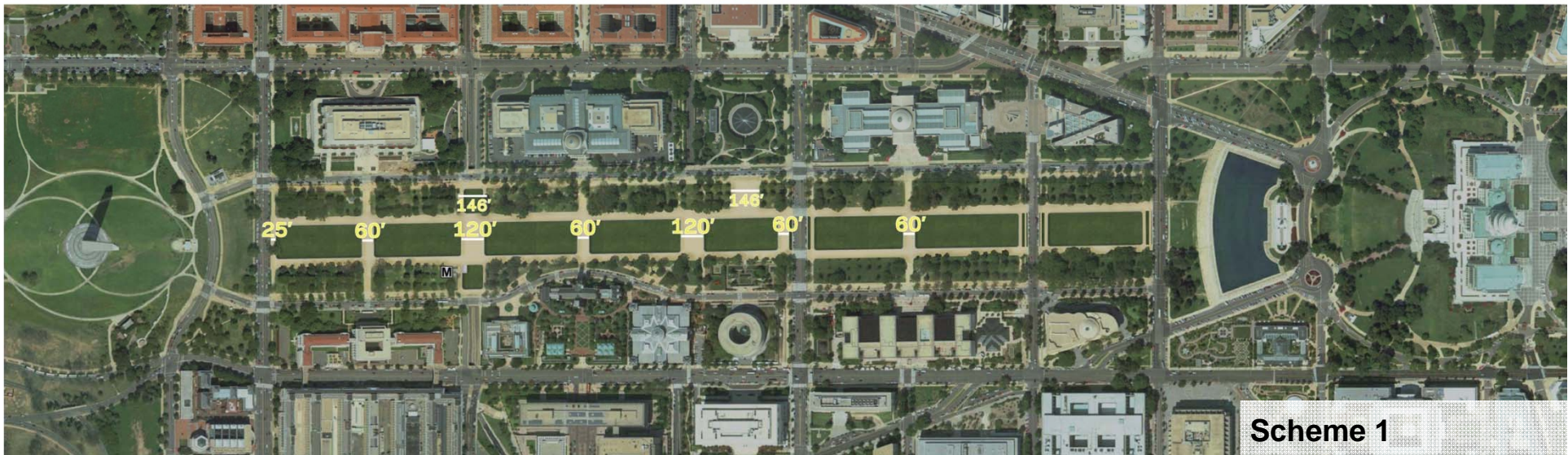
- ★ Museum Entrance
- ★ Implied Museum Entrance
- ↔ Cross connections
- Street Corridors
- Street Grid Extensions
- Turf Panels



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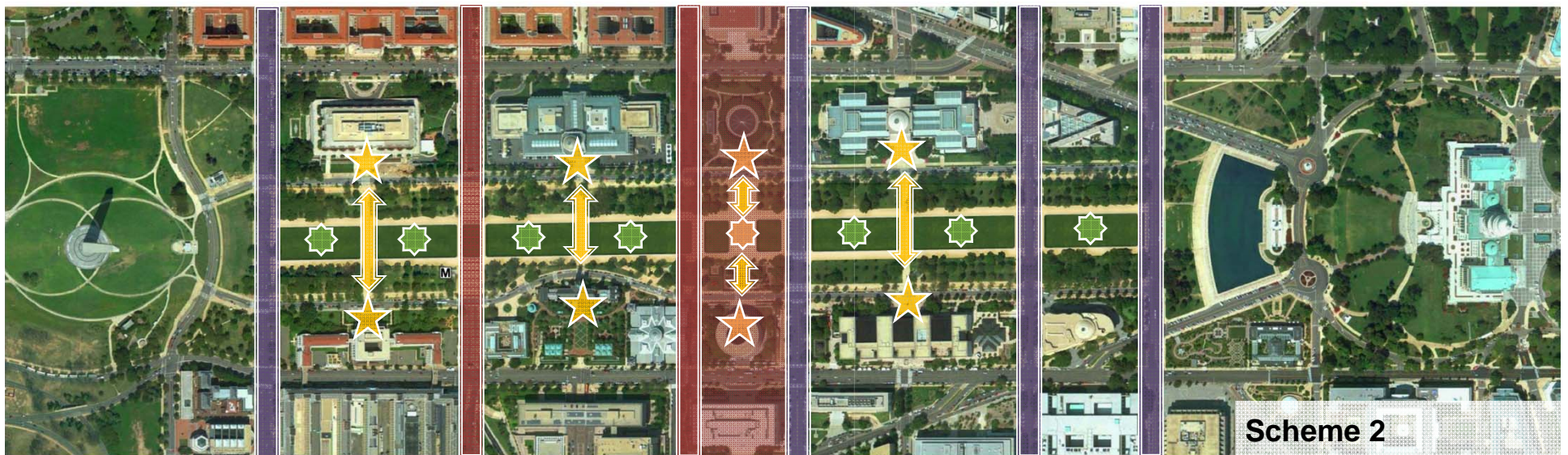
Scheme 1
Design Concept







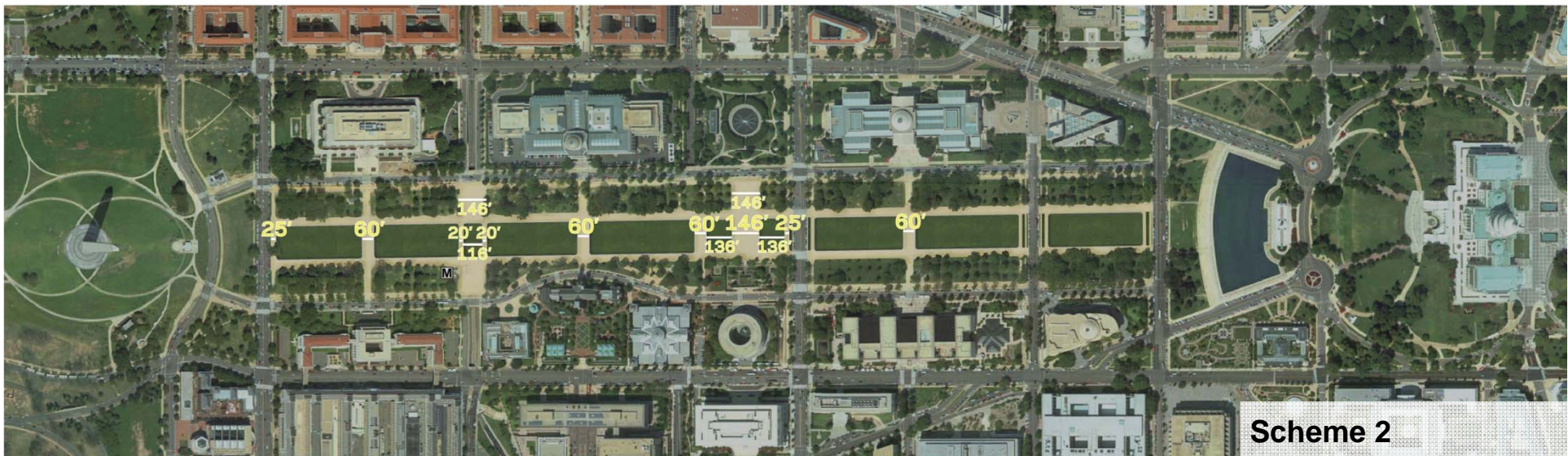
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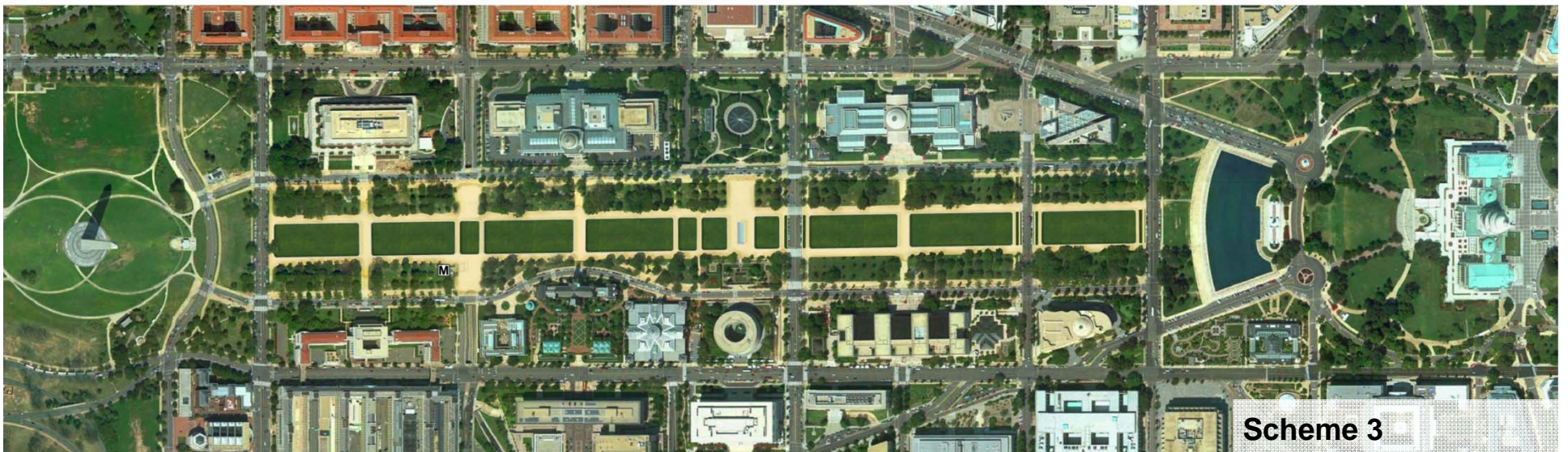
Scheme 2







Existing Conditions



Scheme 3

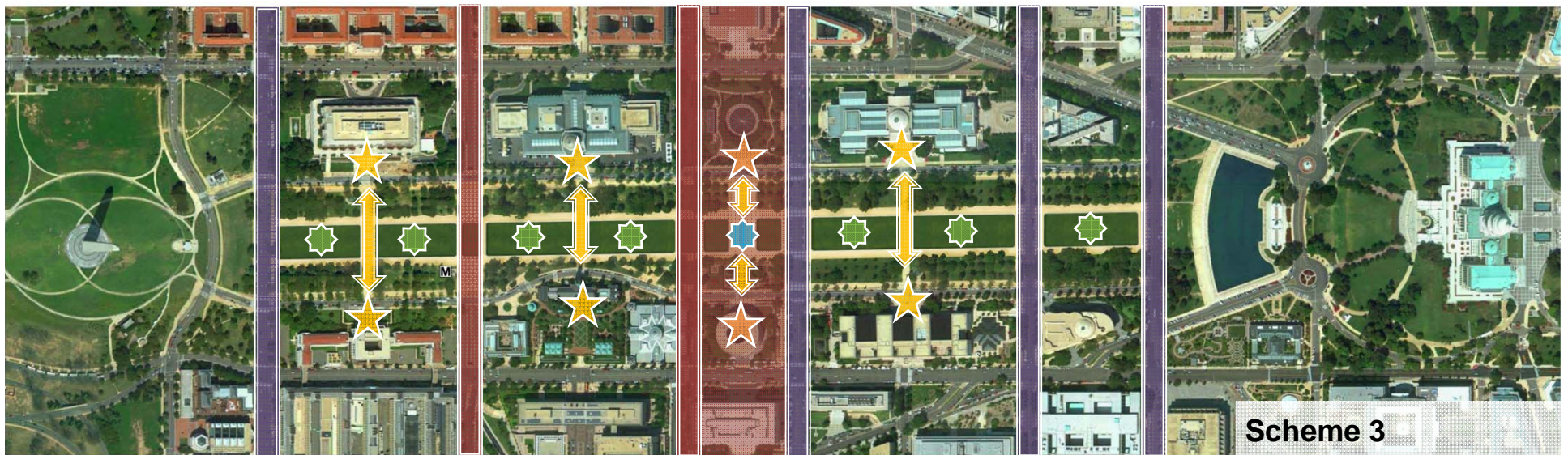


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Scheme 3



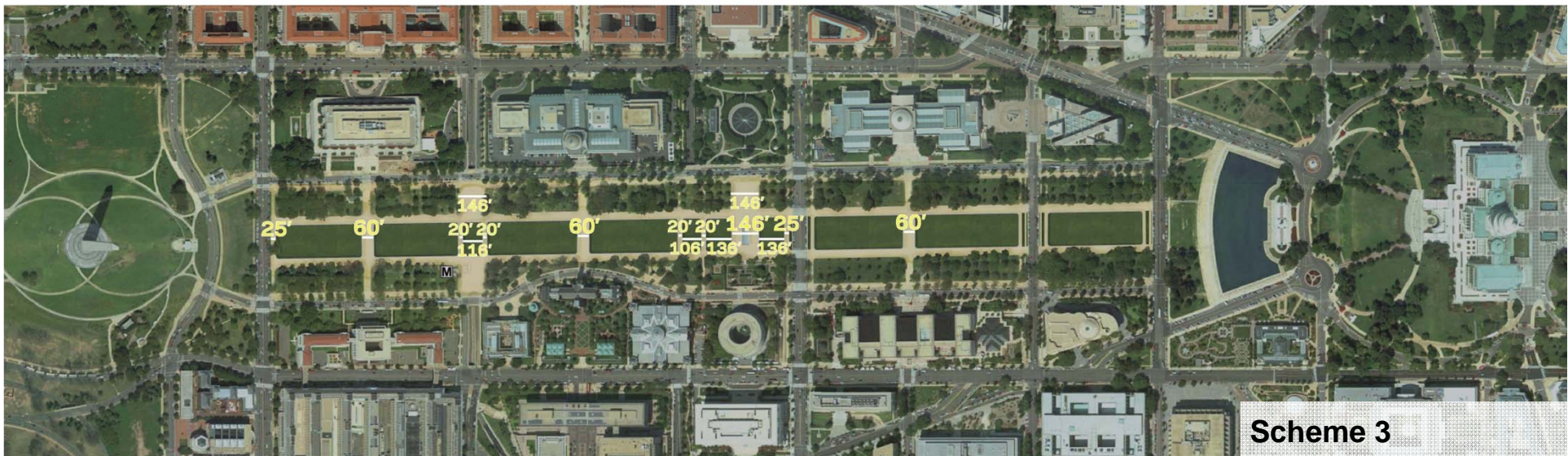
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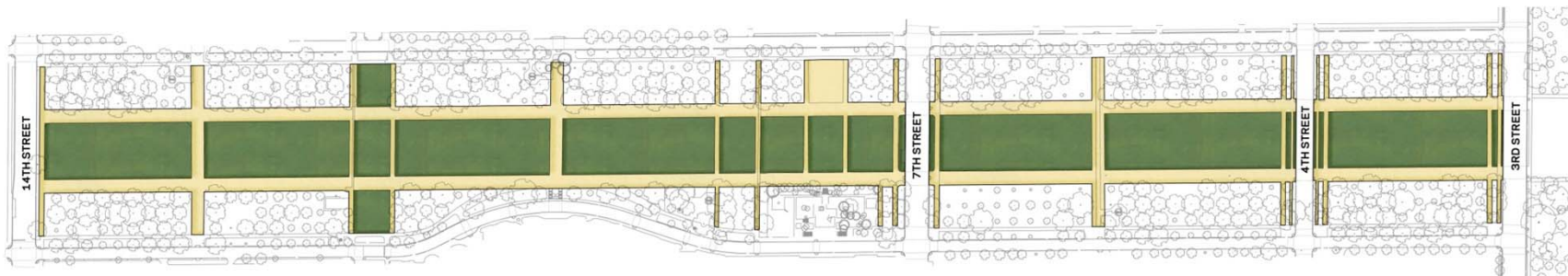
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Scheme 3





Area Calculations					
	Turf Panel Area (ac.)	Turf Percentage (%)	Walkway Area (ac.)	Walkway Percentage (%)	Calculated Mall Area (ac.)
Existing Conditions	18.09	58.8%	12.69	41.2%	30.78

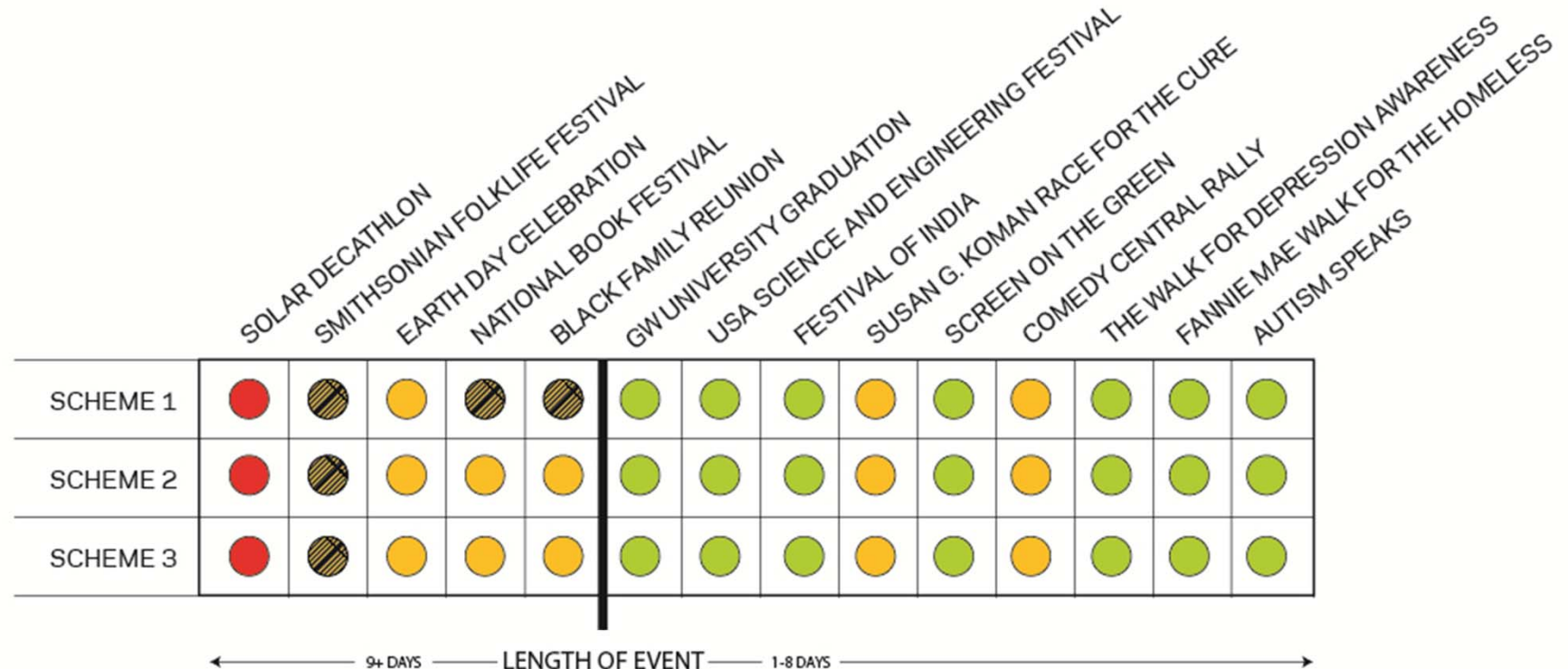


NOTE: Calculated area includes The National Mall from 14th to 3rd Street. It does not include Union Square and the walkways adjacent to Jefferson and Madison Drives

	Turf Panel Area (ac.)	Turf Percentage (%)	Walkway Area (ac.)	Walkway Percentage (%)	Delta Turf Area Loss (ac.)
Mall Schemes					
Scheme 1	17.29	56.2%	13.49	43.8%	0.800
Scheme 2	16.74	54.4%	14.04	45.6%	1.350
Scheme 3	16.82	54.6%	13.96	45.4%	1.270



REPRESENTATIVE EVENTS ON THE NATIONAL MALL SCHEMES



LEGEND

- EVENT REQUIRES STRUCTURES ON TURF
- EVENT FITS WITH THE USE OF DESIGNATED TURF PANELS AND RECONFIGURATION
- EVENT FITS ON PAVEMENT AREA WITH RECONFIGURATION
- EVENT FITS WITH THE USE OF ADJACENT JEFFERSON AND MADISON DRIVES WITH RECONFIGURATION

NOTE: ASSUMES EVENT VISITORS AND CHAIRS MAY BE LOCATED ON TURF



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Representative Events Chart





Looking east toward 12th Street axis crossing



Looking east toward 7th Street



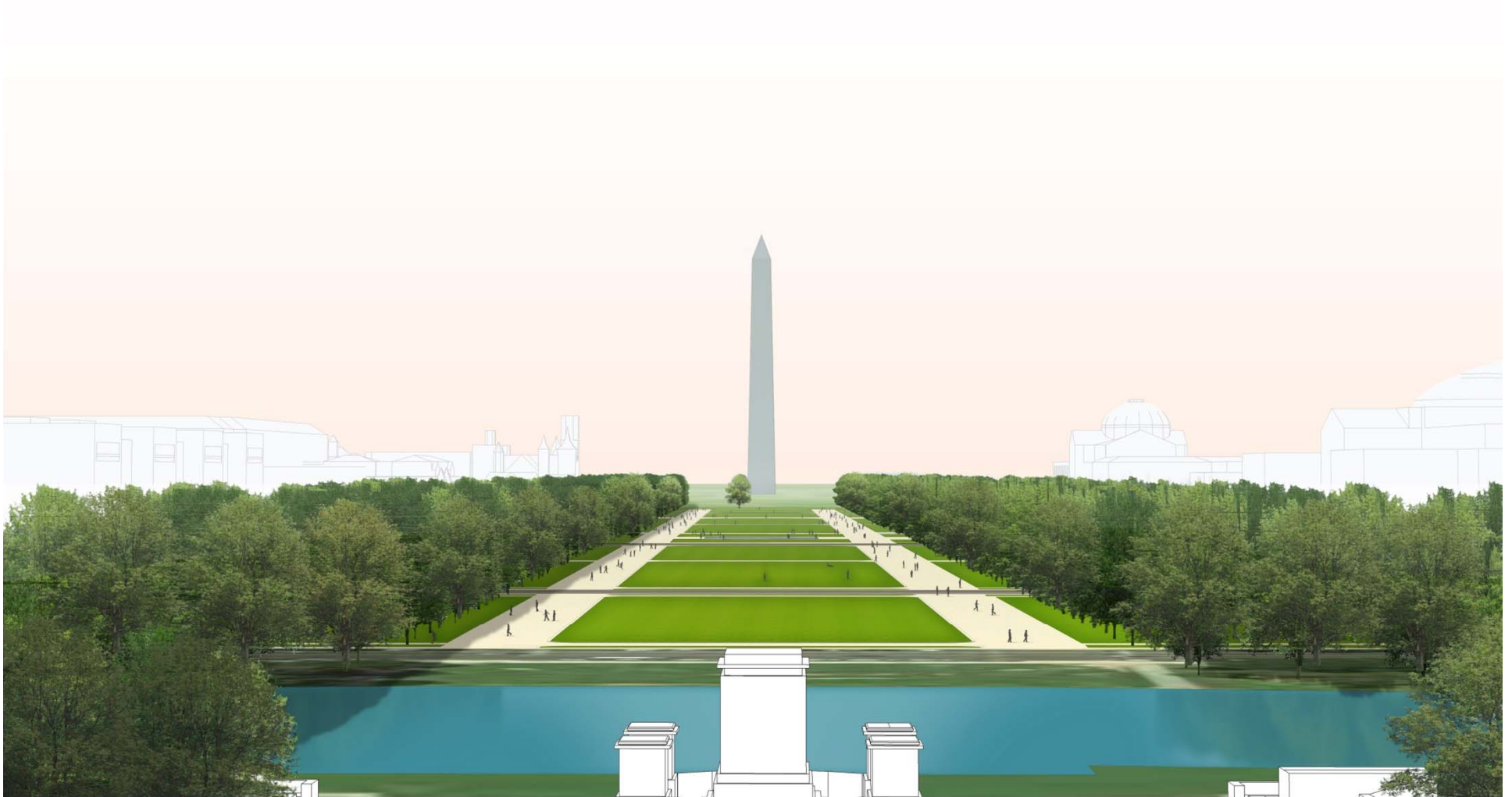
Looking west from the Capitol Steps

7th Street causes the largest break in the continuous visual of green swath currently on the Mall. The dimension between lawn panels across the road is 160'.

The proposed schemes were developed so that an unbroken “Tapis Vert” would remain a key visual component from eye level while standing on the Mall.



Looking west toward the Washington Monument from The Capitol steps



Looking east from 290 feet
west of 12th Street corridor



Looking east from 290 feet
west of 12th Street corridor



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