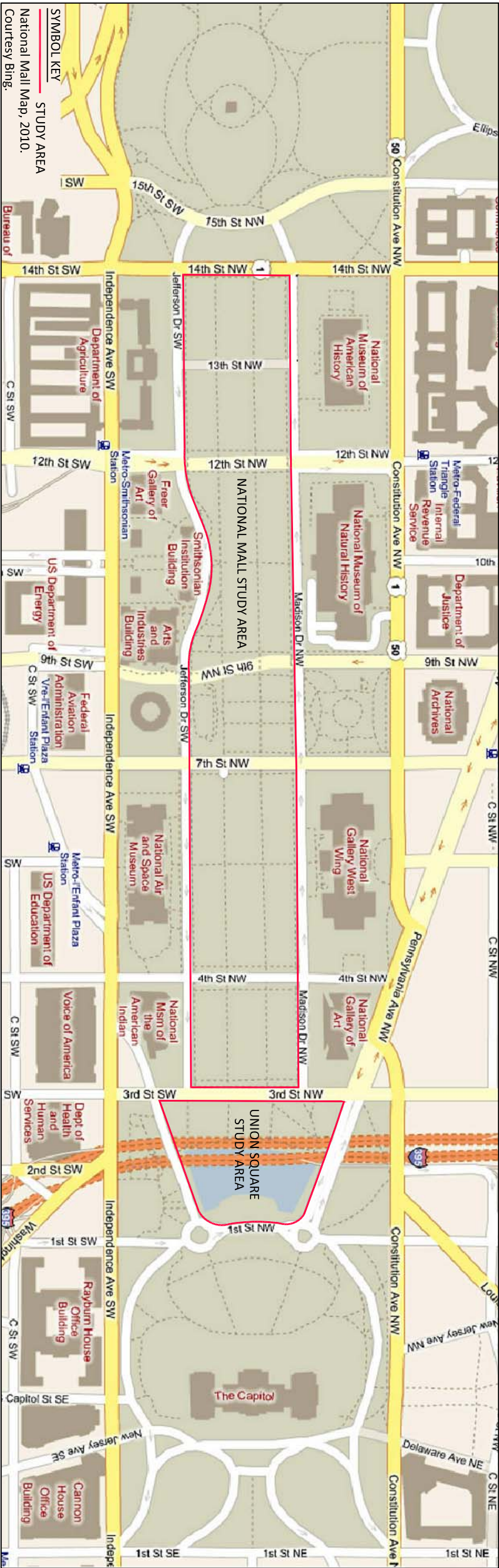



MALL MAPPING - RECONSTRUCT TURF & SOIL ON THE NATIONAL MALL

National Mall & Memorial Parks, Washington, DC

Contract No. 1443C2000091500 PMIS/PKG. No. NAMA 151515
30 June 2010 - For The Louis Berger Group, Inc. Morristown, NJ



National Mall Photo, 2009. Courtesy Heritage Landscapes.
MMP-HL-Mail-Pano-012-15Oct09-detail.JPG

Contents	
Introduction, Page 1	
1791-1819, Pages 2-4	
Initial Plans & Implementation	
1820-1865, Pages 5-7	
Park & Canal Landscape	
1866-1900, Pages 8-10	
Park Landscape & Planning	
1901-1933, Pages 11-15	
Park & Monument Landscape	
1934-1945, Pages 16-20	
Green Vista	
1946-1976, Pages 21-24	
Pedestrian Mall	
1977-2010, Pages 25-26	
High Use Landscape	
Overlays, Pages 27-32	
1818-1857-1891 with 2010 Layouts	
1927/33-1936/40-1974 with 2010 Layouts	
1791-2010 Surface Features	
2010 Subsurface Utilities & Tunnels	
1791-2010 Surface & Subsurface Features	
1818-2010 Surface & Subsurface Features with Trees	
Sources, Page 33	
	<p>Heritage Landscapes LLC</p> <p>Preservation Landscape Architects & Planners</p> <p>Charlotte, Vermont 802.425.4330</p> <p>Norwalk, Connecticut 203.852.9966</p> <p>Asheville, North Carolina 828.989.8616</p>
PAGE	COVER



1879 PHOTO OF THE NATIONAL MALL FROM THE WASHINGTON MONUMENT TO THE U.S. CAPITOL
Source: Hacker, “Panoramic View of Washington, D.C.,” c1879. Courtesy Library of Congress. MMP–LC–CapitolfromCastle–1879–USZC4–12138–Panorama

Mall Mapping Project: Landscape Evolution of the National Mall & Union Square

The purpose of this project is to gain an understanding of the ground disturbance within the landscapes of the National Mall and Union Square over time in preparation for the restoration of soils and turf. The National Mall and Union Square are iconic cultural landscapes and valued symbols of democracy in the United States. The process of improving drainage and resisting compaction toward a healthier landscape requires some excavation. The National Mall includes tree and turf covered panels between Union Square at the U.S. Capitol and the Washington Monument in the heart of the nation's capital city. More than 25 million visitors walk on these landscapes each year, compacting the soil structure and reducing the pore space that would otherwise provide air and water to the roots of the trees and turf. The National Park Service (NPS) is developing a project to improve turf and soil conditions on the National Mall. This project will provide a more sustainable surface that will be better able to withstand high levels of use.

This project is research based. Heritage Landscapes, Preservation Landscape Architects & Planners, located primary historic documents in archival collections, recent reports, and several published sources to the track the evolution of the landscapes of Union Square and the National Mall. The varied sources for the wealth of documents presented in these pages are noted on the source listing on page 33. The work consisted of using AutoCAD to produce draft historic maps and overlay disturbance maps showing areas of construction, demolition, and other ground disturbance within the National Mall and Union Square project area for the National Park Service to inform project direction and related environmental review. The combination of historic overviews and images for each era, historic outline maps, and overlays provides the desired compilation of data to document these important landscapes.

In summary, the detailed groundplane history of the National Mall and Union Square landscapes was shaped by a series of disturbances over time. The era-by-era presentation of these landscapes documents a sequence of interventions with the landforms shaped by successive fills on the formerly low-lying lands adjacent to Tiber Creek. Excavations also mark this history, with the 18th century Washington City Canal as the earliest, followed by tunneling of 9th Street, 12th Street, and I-395 in the 20th century. The National Mall and Union Square today reflect interventions that have transformed the landscape from creekside wetlands, to curvilinear and gently sloping park lands, to a relatively level surface grade.

Accompanying the National Mall and Union Square historical collection is a series of mapping overlay drawings that present the surface features and subsurface utilities between 1791 and 2010 in colors distinct for each era. A series of deep excavations, including steam tunnels, sewer lines, and underpass tunnels for the Metro and at 12th Street, 9th Streets, and I-395, are considerable subsurface disturbances. Excavations from 4-foot depth to the surface include walks, drives, trees, placement of curbs, removal of curbs, and additional utilities and other small-scale landscape features.

The history of interventions on the National Mall and Union Square results in a condition of overall disturbed soils throughout the site characterized by successive fills in low-lying areas, wetlands, creek and canal, and a continued sequence of excavations, plantings, installation of utilities, building construction and other construction activities both deep and above a 4-foot depth. Traces of former constructions removed from the National Mall may remain in part below grade. Union Square was extensively disturbed in the construction of the 1-395 tunnel and the Capitol Reflecting Pool. Understanding this landscape history is an important reference for planning the restoration of turf and soils on the National Mall and Union Square.



2010 UNION SQUARE PHOTO
Source: Heritage Landscapes. MMP–Mall–Union–Sq–16–HL–11March10

 <div>Heritage Landscapes LLC Preservation Landscape Architects & Planners Chester, VT 05726-4330 Newark, VT 05855-0966 Newark, VT 05855-0966</div>	TITLE OF SERIES		CONTRACT NO.	SHEET TITLE
	MALL MAPPING			
	RECONSTRUCT TURF & SOIL ON THE NATIONAL MALL NATIONAL MALL & MEMORIAL PARKS WASHINGTON, DC		PMS/PKG NO. NAMA 151515	INTRO
			DATE JUNE 2010	PAGE 1