

Washington Metropolitan Area Transit Authority

FAN AND VENT SHAFT FLOOD REMEDIATION,

NATIONAL MALL AND VICINITY

October 31, 2011





Introduction

The report covers the major fan shafts and vent shafts listed below as potential sources of inflow. Shaft locations are as follows, and are shown on the following maps.

Blue/Orange Line:

Federal Triangle Metrorail Station

FD-1, located between Metro Center and Federal Triangle Stations

VD-2, on the north side of Federal Triangle Station

VD-3, on the south side of Federal Triangle Station

FD-2, located between Federal Triangle and Smithsonian Stations

VD-4, near Smithsonian Station

Green/Yellow Line

Archives-Navy Memorial Metrorail Station

FF-1, located between Gallery Place and Archives-Navy Mem. Stations

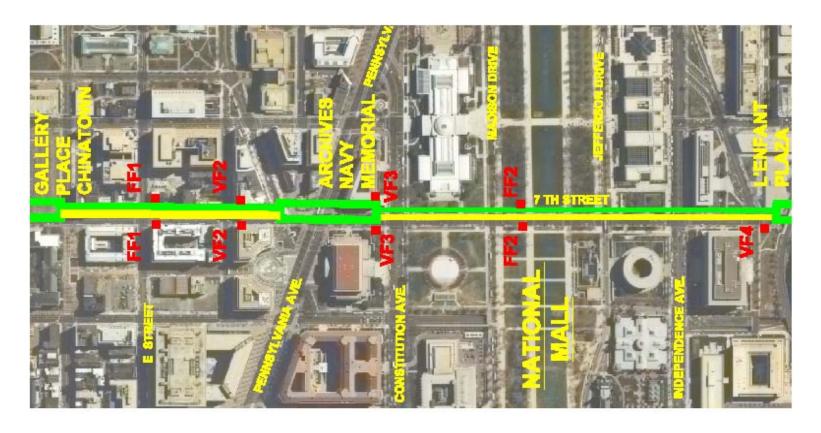
VF-2, located on the north side of Archives-Navy Mem. Station

VF-3, located on the south side of Archives-Navy Mem. Station

FF-2, located between Archives-Navy Mem. and L'Enfant Plaza Stations



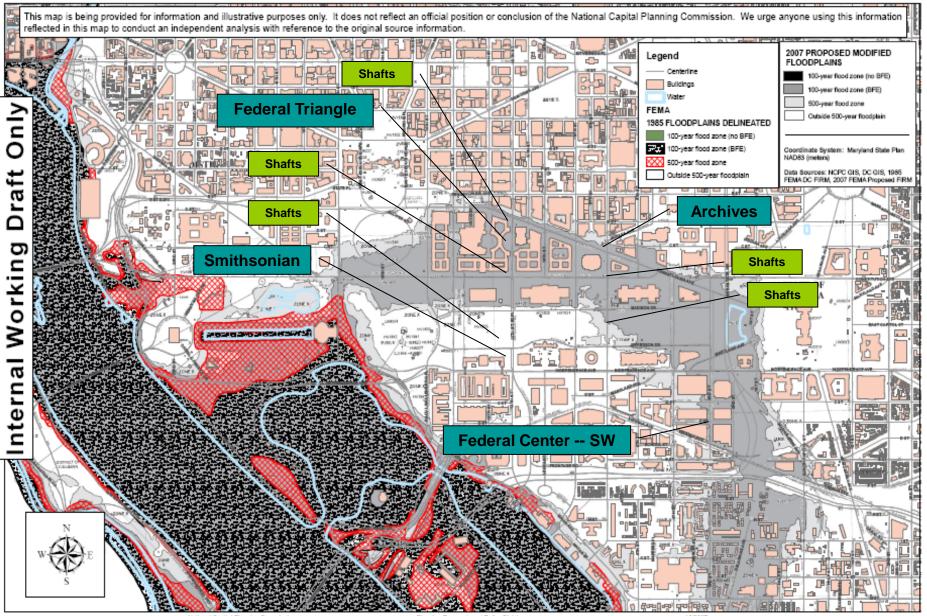




Fan/Vent Shaft Location - Yellow/Green Line







National Capital Planning Commission

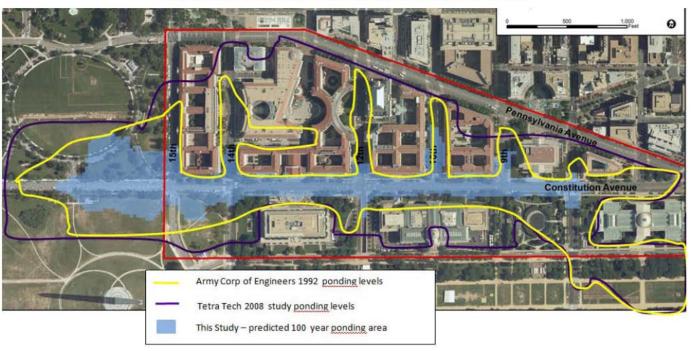
Planning Research and Policy Division

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Baseline Ponding Predictions

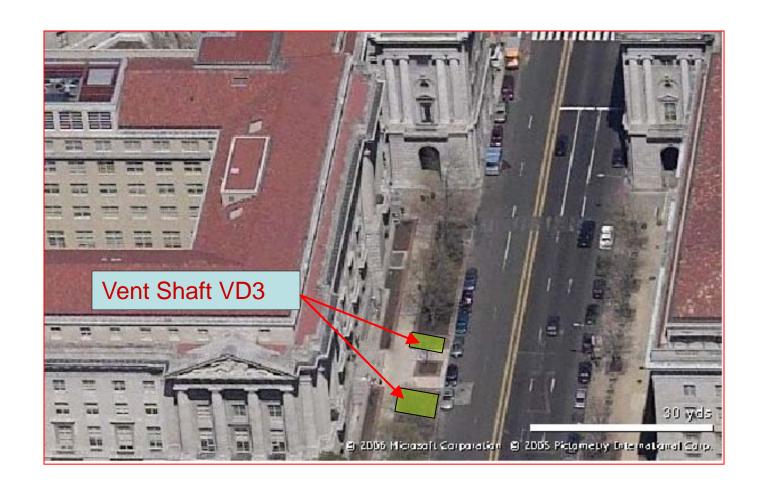
Figure 5-10
Comparison of Flood Extents Along Constitution Avenue



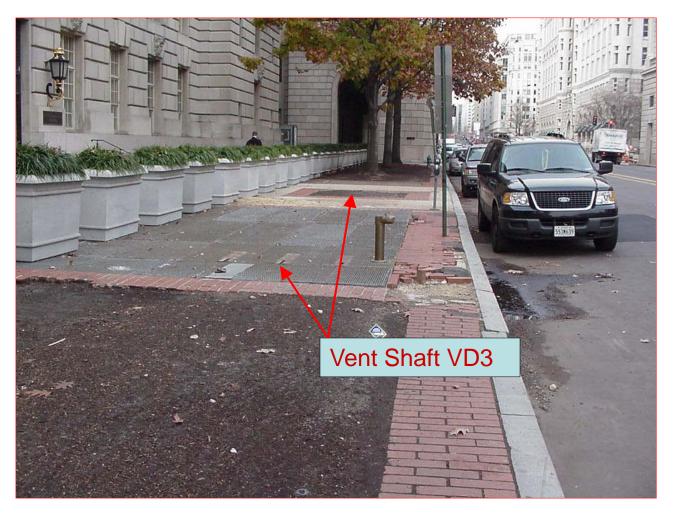


Vent Shaft VD3



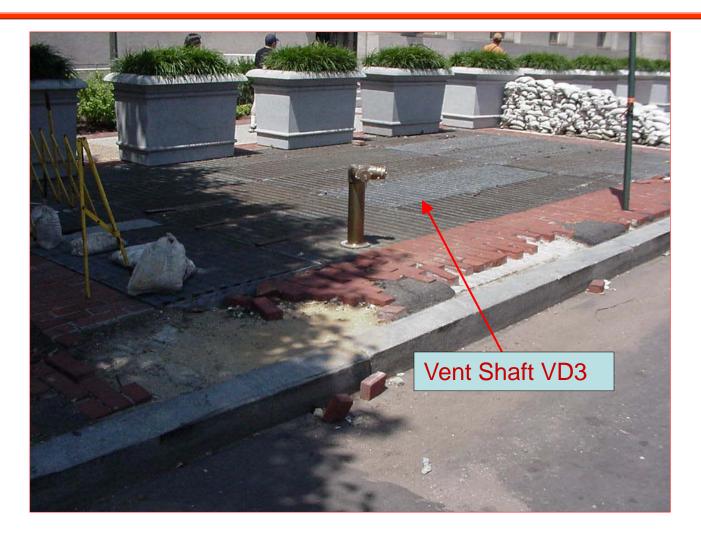






Vent Shaft VD3 - 310 12th Street, N.W. - Existing Condition





Vent Shaft VD3 - 310 12th Street, N.W.



Vent Shaft VD4





Vent Shaft VD4 – Adams Drive



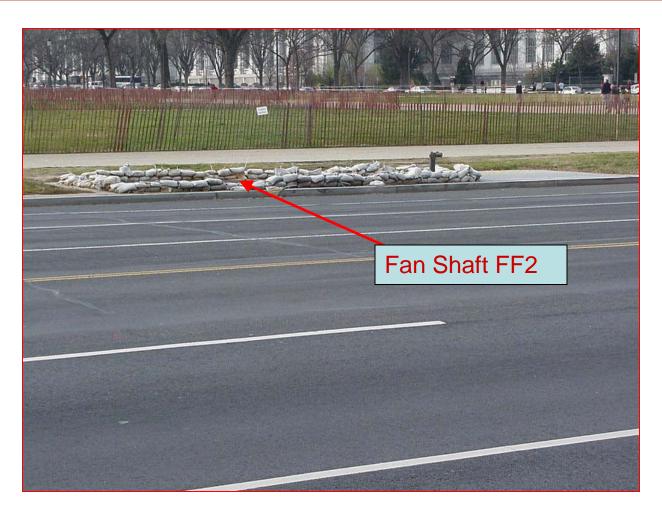


Vent Shaft VD4 – Adams Drive



Fan Shaft FF2



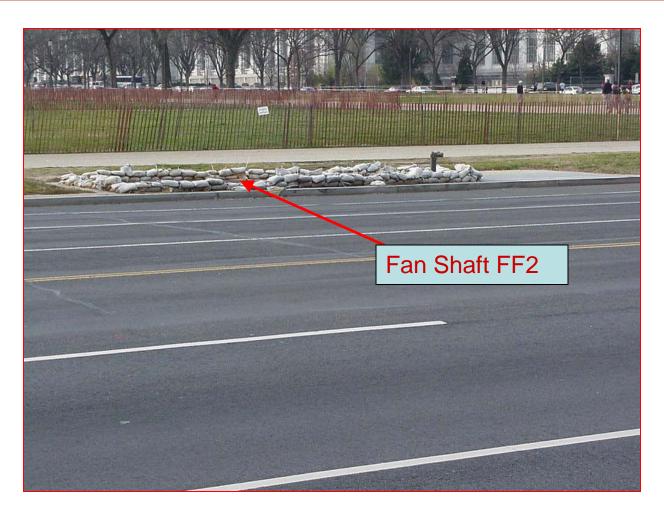


Fan Shaft FF2 – 1 7th Street, N.W.



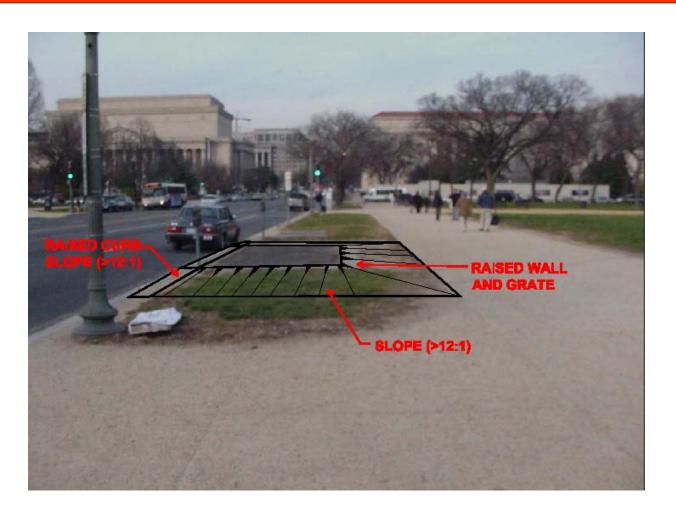
Potential Solutions





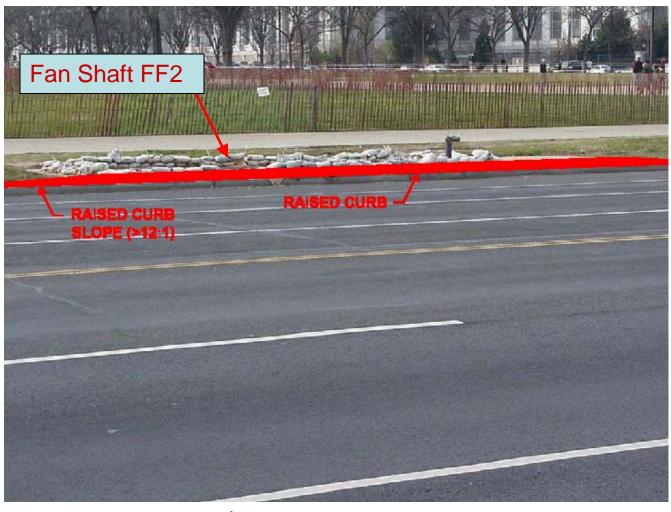
Fan Shaft FF2 – 1 7th Street, N.W.





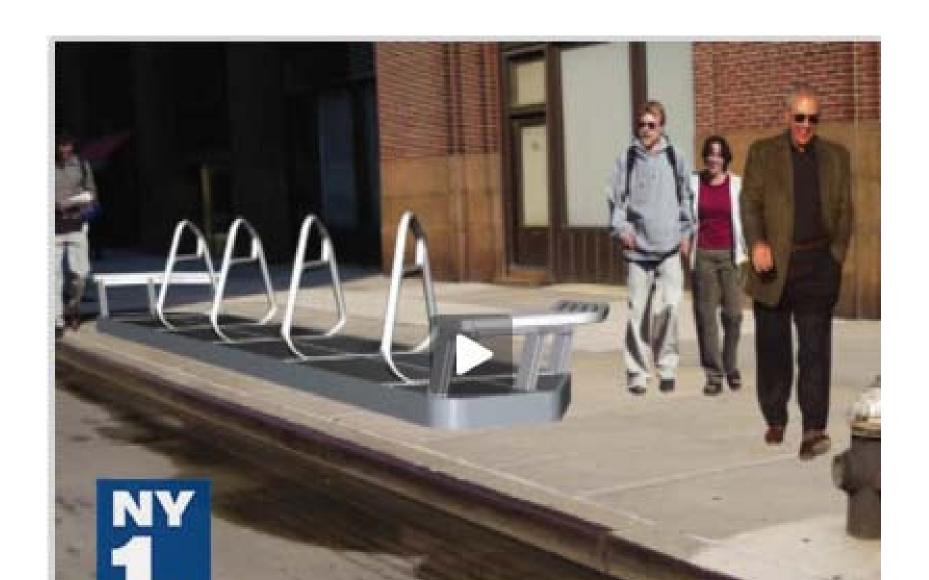
Fan Shaft FF2 – 1 7th Street, N.W.





Fan Shaft FF2 – 1 7th Street, N.W.



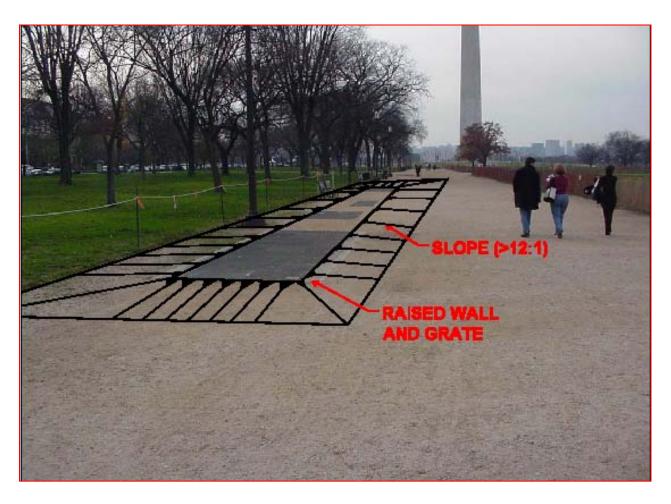






Vent Shaft VF3 – 701 Constitution Avenue, N.W.





Vent Shaft VD4 – Proposed Improvement