

## PROJECT

Basilica of the National Shrine of the  
Assumption of the Blessed Virgin Mary  
Baltimore, Maryland

## CLIENT

John G. Waite Associates  
Albany, New York

*Right:* Completed in 1821, the cathedral is considered by many to be the greatest work of architect Benjamin Latrobe.



## PROJECT DESCRIPTION

A major historic assessment program began in 2000 for the Basilica. The work was designed to serve as a prototype conservation project to demonstrate the use of experimental, innovative, and state of the art nondestructive evaluation techniques.

## SERVICES PROVIDED BY ATKINSON-NOLAND

- Pulse velocity testing to evaluate the solidity and uniformity of masonry walls
- Tomographic imaging of piers in the sanctuary and undercroft using mechanical pulse and impulse radar
- Flatjack testing to determine in situ stress within critical masonry elements
- Impulse radar investigations to determine dome thickness, sanctuary floor thickness, and foundation details
- Evaluation of mortar, render, and plaster samples to formulate compatible replacement materials.
- Collaboration with Bridge Diagnostics, Inc., for installation of long-term structural and environmental monitoring system.



Atkinson-Noland & Associates  
Consulting Engineers  
[www.ana-usa.com](http://www.ana-usa.com)

2619 Spruce Street  
Boulder, CO 80302  
303.444.3620

32 Old Slip, 10th Floor  
New York, NY 10005  
917.647.9530