





Office of Structures

Welcome to New York!

Stephanie Winkelhake, P.E. Assistant Commissioner and Chief Engineer





AASHTOWare Rating and Design Bridge User Group (RADBUG) Meeting August 6-7, 2024 | Buffalo, New York

I'm in a New York State of Mind

- Grew up in Southern California
- Bachelor's Degree in Civil
 Engineering from Rensselaer
 Polytechnic Institute
- □ New York State P.E. License



- Accelerated design and construction projects
- Emergency response for flooding, washouts, bridge hits, and critical finding conditions
- Director of the Structures Design Bureau within the Office of Structures at NYSDOT



Julianne M. Fuda, P.E. Director, Structure Design Bureau



Committee Involvement

a sold own is seen to be a set

Member of the NYSDOT Digital Delivery Committee

Bridges

GOING DIGITAL

East 138th St. over the Major Deegan Expressway

AWARD WINNER

New York State Department of Transportation *United States*



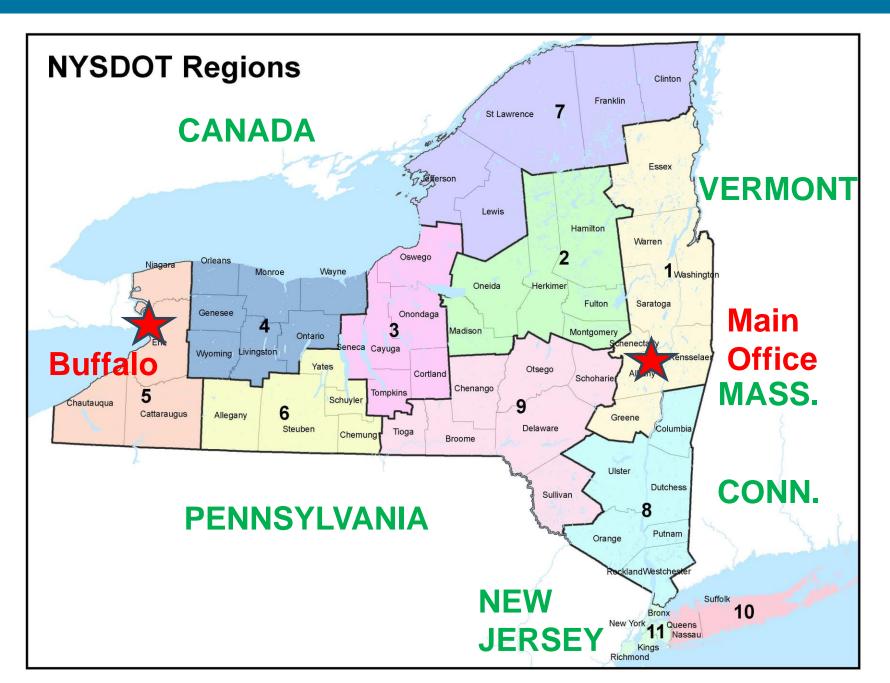
Bentley

Committee Involvement

- ❑ AASHTO Committee on Bridges and Structures
 - Concrete Committee Member
 - Steel and Metals Committee Member
- Past RADBUG Vice President for Design
- Previous Member on BrDR Technical Advisory Groups
 - Analysis TAG
 - Reporting TAG
 - Beta Testing TAG
 - Backlog TAG









From snow removal in Buffalo...





...to the weather out on Long Island.





From traffic in New York City...





... to the remote areas of upstate New York.

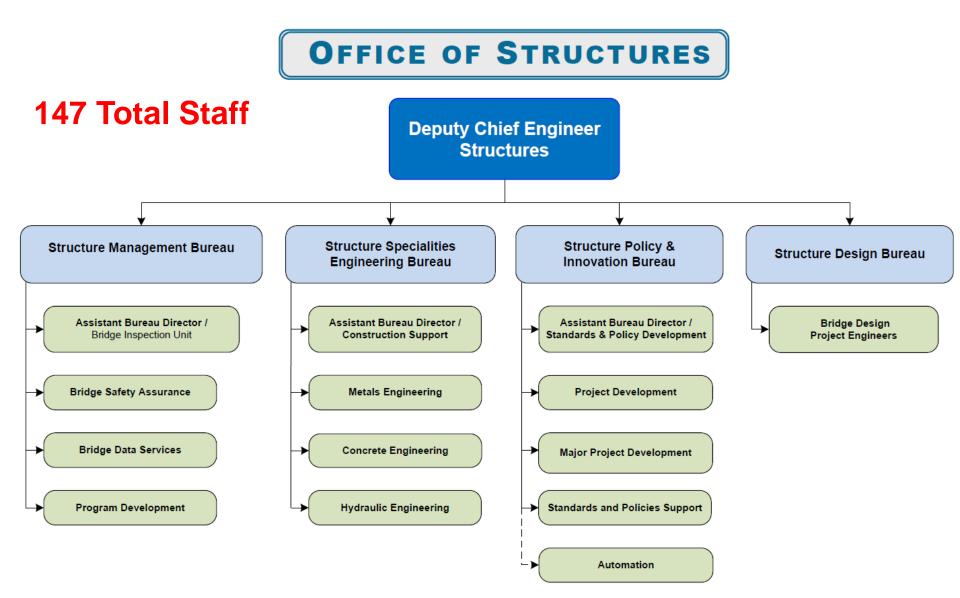




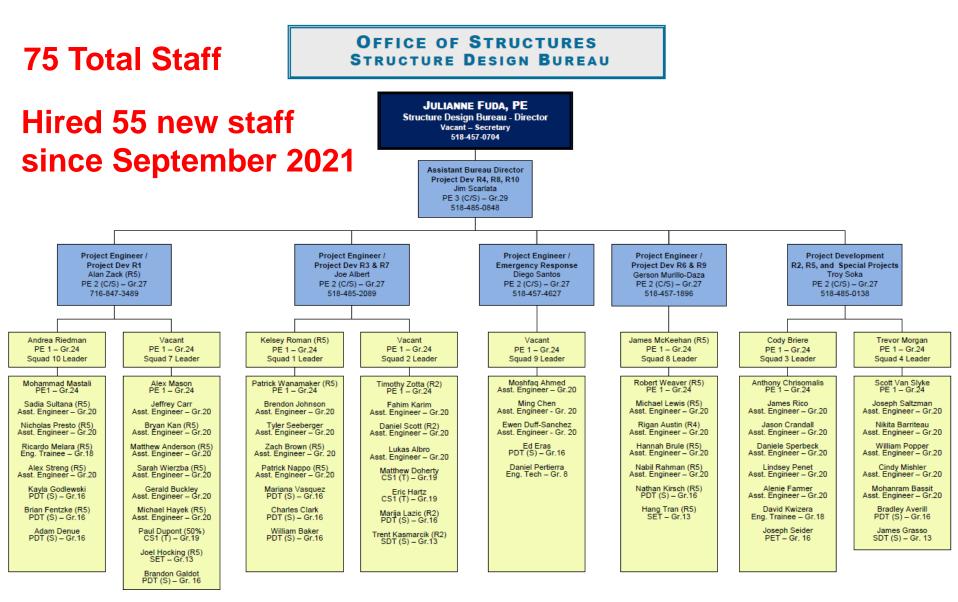
...annnd back to the diversity of Buffalo

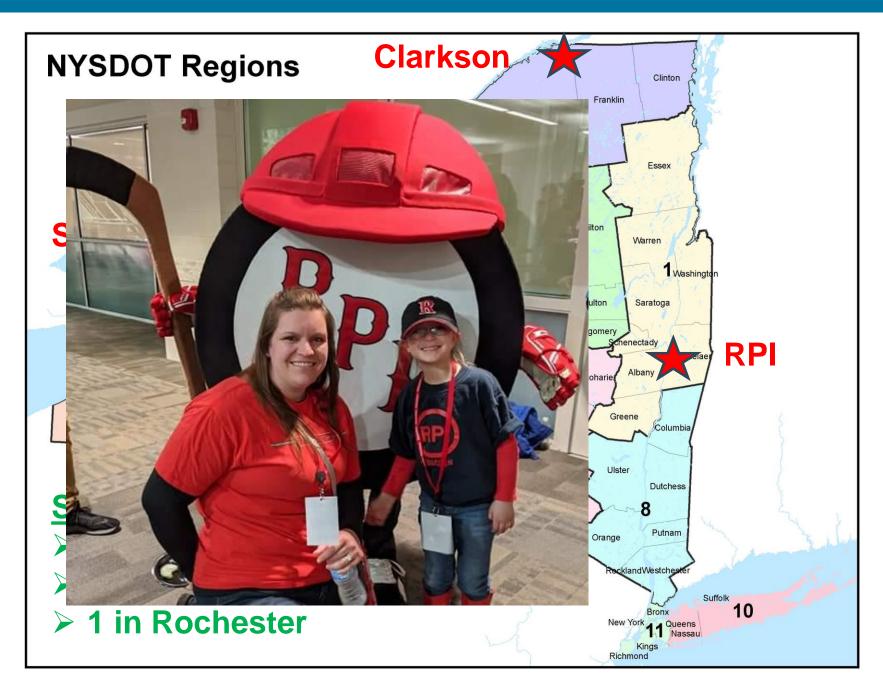


New York State Department of Transportation



Structures Design Bureau





New York State Department of Transportation

Responsible for the development and operation of highways, railroads, mass transit systems, ports, waterways and aviation facilities in New York State.

- 110,000 miles of highways
- 17,600 highway bridges
- 5,000 miles of rail
- 130+ public transit operators



456 aviation facilities



New York State Department of Transportation

- 17,600 Highway Bridges
- 10,300 Steel Bridges
- 3,100 Prestressed Bridges
- 3,000 Reinforced Concrete Bridges

- 500 Trusses
- 1 Suspension Bridge
- 8,000 Large Culverts





Historic Structures in New York State



- Erie Canal connects Great Lakes with the Atlantic Ocean
- Runs 363 miles between Buffalo and Albany to the Hudson River
- Construction 1817-1825, 83 locks built for elevation changes
- Still in operation, mostly for pleasure boating
- NEW YORK STATE OF OPPORTUNITY. Department of Transportation

Historic Structures in New York State

BY THE AUTHOR OF THE PULITZER PRIZE-WINNING JOHN ADAMS

David McCullough

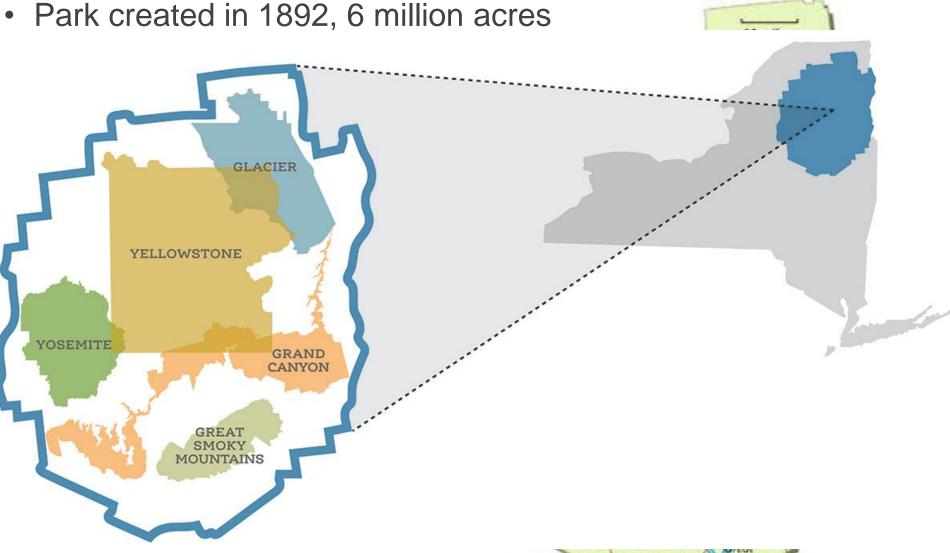
GREAT BRIDGE

The Epic Story of the Building of the Brooklyn Bridge

*The Great Bridge is a book so compelling and complete as to be a literary monument...McCullough has written that sort of work which brings us to the human center of the past." —Los Augeles Times ver between Brooklyn and Manhattan ther John Roebling, son Washington en Roebling wire, pier construction challenged by

a. Caissons Disease or "The Bends"

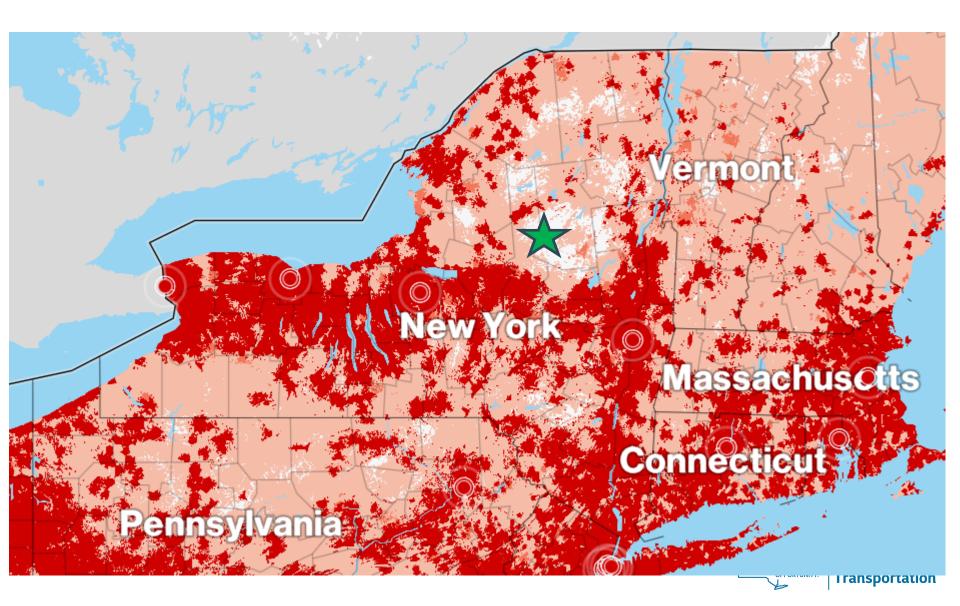
Home to the Adirondack Park



protected landscapes in the world

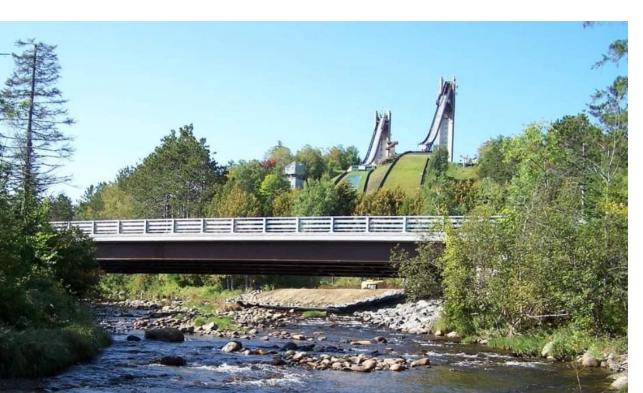


Home to the Adirondack Park



New York State Hosted 1932 Winter Olympics

- 3rd ever winter Olympic games
- Hosted in Lake Placid, New York
- "Ski Jump" bridge replacements



III Olympic Winter Games







New York State Hosted 1980 Winter Olympics

- February 22, 1980
- Men's United States hockey team beat the Soviet Union 4-3, one of the biggest upsets in sports history.







New York State Department of Transportation

- NYSDOT as Expert Owners
- NYSDOT performs 11,300 Level 2 Load Ratings annually
- 20 total in-house
 Load Rating staff in
 New York State

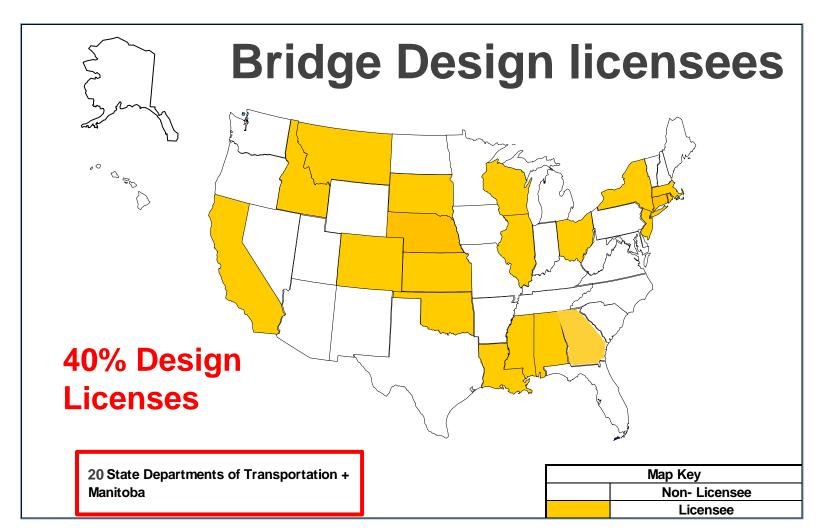


 80-90% of new and replacement bridges and complex rehabilitations are designed using in-house DOT design staff



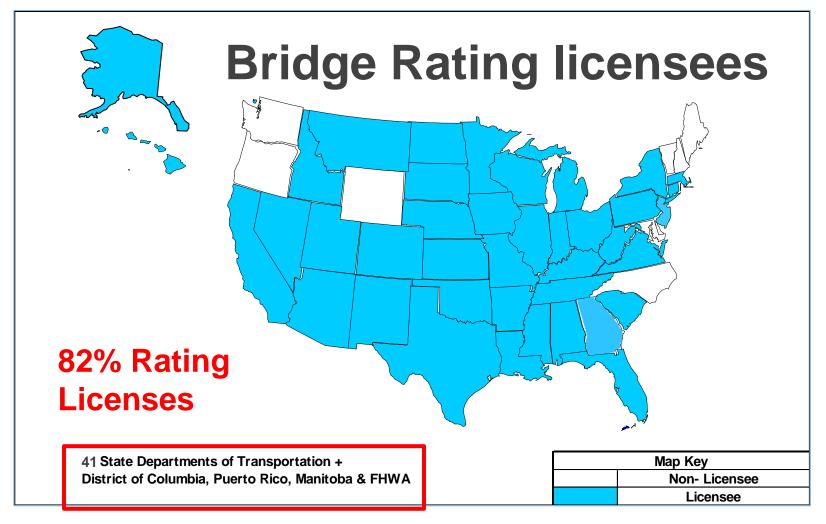
WHO USES AASHTOWARE BRIDGE DESIGN SOFTWARE?

State DOTs, Local Agencies, and educational institutions within the jurisdiction of AASHTO Members and Associate Member Departments



WHO USES AASHTOWARE BRIDGE DESIGN SOFTWARE?

State DOTs, Local Agencies, and educational institutions within the jurisdiction of AASHTO Members and Associate Member Departments



Life Cycle of a BrDR model

Design staff create model for bridge replacement

Load Rating staff use the model during bridge's service life

Design staff update the model for a bridge rehabilitation

Load Rating staff use the model during bridge's remaining service life



Department of Transportation

NYSDOT Attendance at RADBUG Meeting

- 11 Main Office Structures staff from Albany
- 8 Main Office Structures staff from Buffalo
- 4 Regional staff from Buffalo, Rochester, Hornell, and NYC





RESTAURANTS





THINGS TO DO









Office of Structures

Enjoy RADBUG!

2024 RADBUG Annual Meeting

August 6-7, 2024 | Buffalo, NY



Julianne Fuda, P.E. Director, *Structures Design Bureau* Julianne.Fuda@dot.ny.gov (518) 457-0704