
NYC
Mayor's Office of
Recovery and Resiliency
#ONENYC
NYC Wind Study Overview
NACWIR June 27, 2017

Wind Study in Response to Local Law 81 of 2013

Why are we doing this?

- New York City has a vast array of building configurations and construction types
- High winds can pose significant threats to old or poorly maintained buildings

- High winds can pose risks to construction cranes and other construction equipment and operations
- Buildings under construction have their own vulnerabilities to wind

Source: NY Times

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Project Scope (Tasks)

Existing buildings

- Analysis of existing buildings that are at risk of causing falling debris due to wind, based on the age, construction classification, construction methods and materials, height, and use

Buildings that are raised

- Analysis of effects of wind on existing buildings that are raised, lifted, elevated or moved in order to comply with Appendix G of the NYC Building Code or to address flood hazard concerns

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Project Scope

Buildings under construction

- Analysis of effects of wind on buildings under construction, including the effects of wind on buildings with incomplete façade assemblies, temporary installations used in construction, and construction materials stored on site

Changes in future storms

- Analysis of forecasts of potential changes in the frequency, intensity, and path of future storm events, along with consideration of whether climate change may impact wind speeds and other factors

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Project Scope

Weather stations

- Examination of benefits of installing and maintaining weather stations across the city, including on high-rise buildings, to better understand localized wind patterns

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Expectations

- Bring together expertise in wind engineering, structural engineering and construction
- Specific knowledge of wind conditions in New York City and the capacity to perform wind tunnel testing
- Engineers with experience and practical understanding of the existing NYC building stock and local methods of construction and design
- Use surveys of state of the art of wind engineering, statistical analysis of wind related failures and engineering calculations of typical details of existing building assemblies
- Adhere to the requirements of this task order, including requirements contained in the CDBG-DR Rider, the Uniform Federal Contract Provisions Rider for Federally Funded Procurement Contracts, and HUD Form 4010 – Federal Labor Standards Provisions.
- Keep ORR/DOB apprised of findings and feel free to ask ORR/DOB for input at any point

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Deliverables

- For each Task 1 to 5:
  - Preliminary Report, including an overview of the project goals, tasks, and methodology, and a list of all content to be developed
  - Progress Report on research findings and analysis
  - Final Report on findings and analysis

- A Report of recommendations on regulation changes and best practices


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