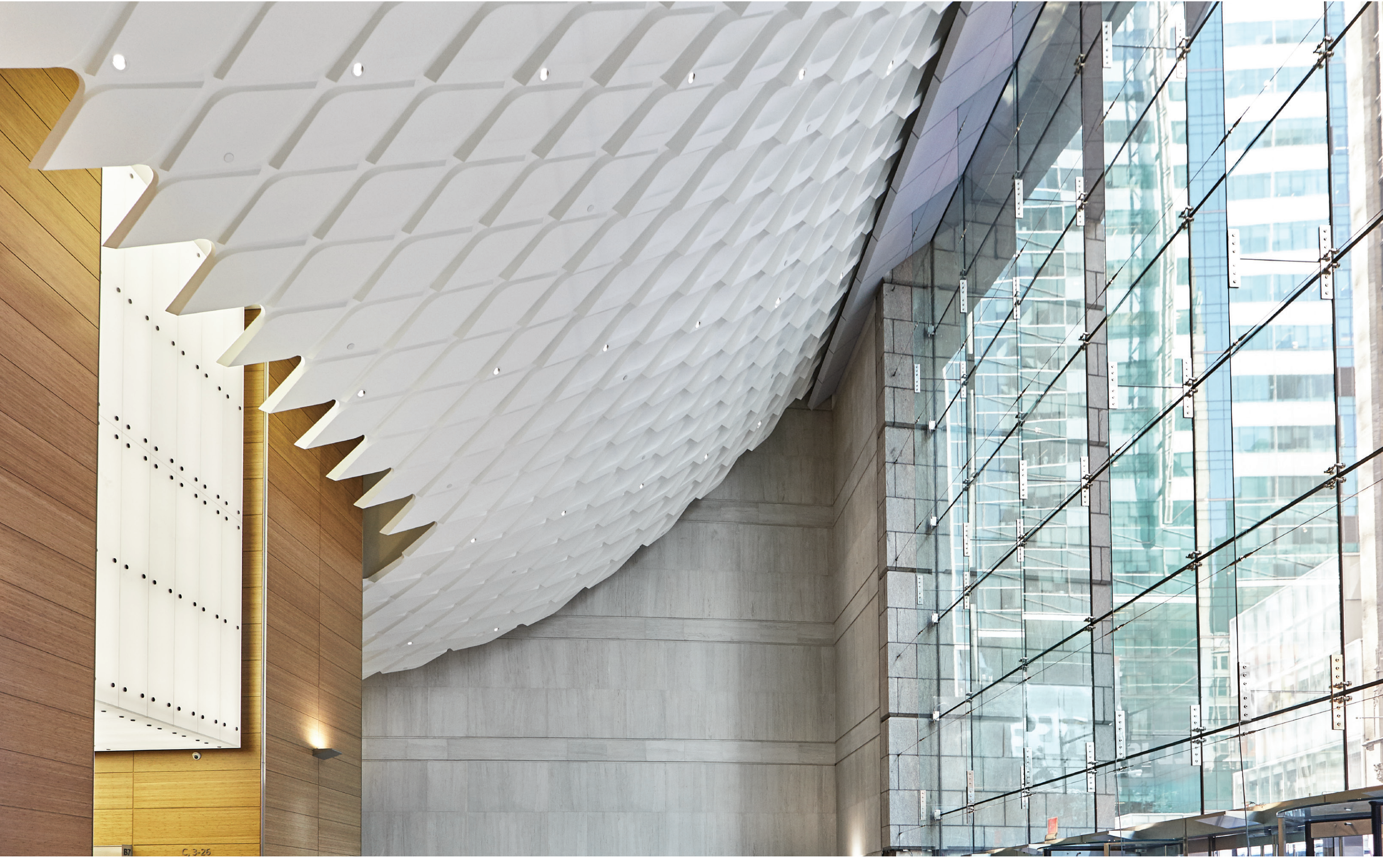




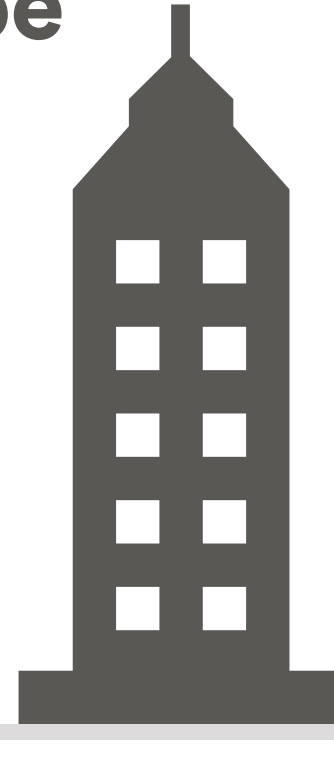
# 4 Times Square



Manhattan

Recent mechanical and lobby upgrades turned this midtown centerpiece into a best-in-class tower, on par with today's new construction.

**building type**



Very Large Commercial

**built**  
1999

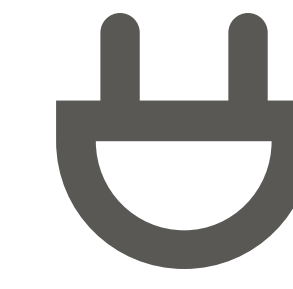
**retrofit**  
2015–2017

**heating fuel**



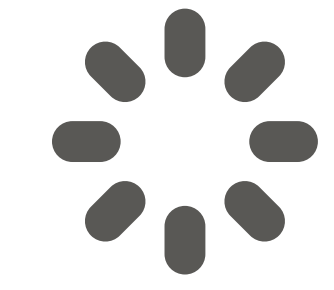
gas

**cooling fuel**

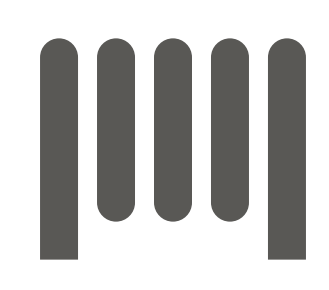


electric

**systems upgraded**



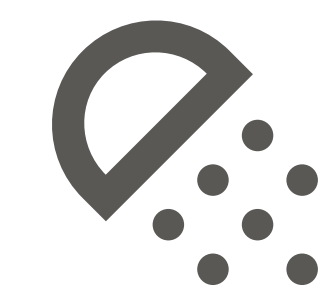
lighting



heating



envelope



domestic hot water



cooling



ventilation



controls



other



passive house

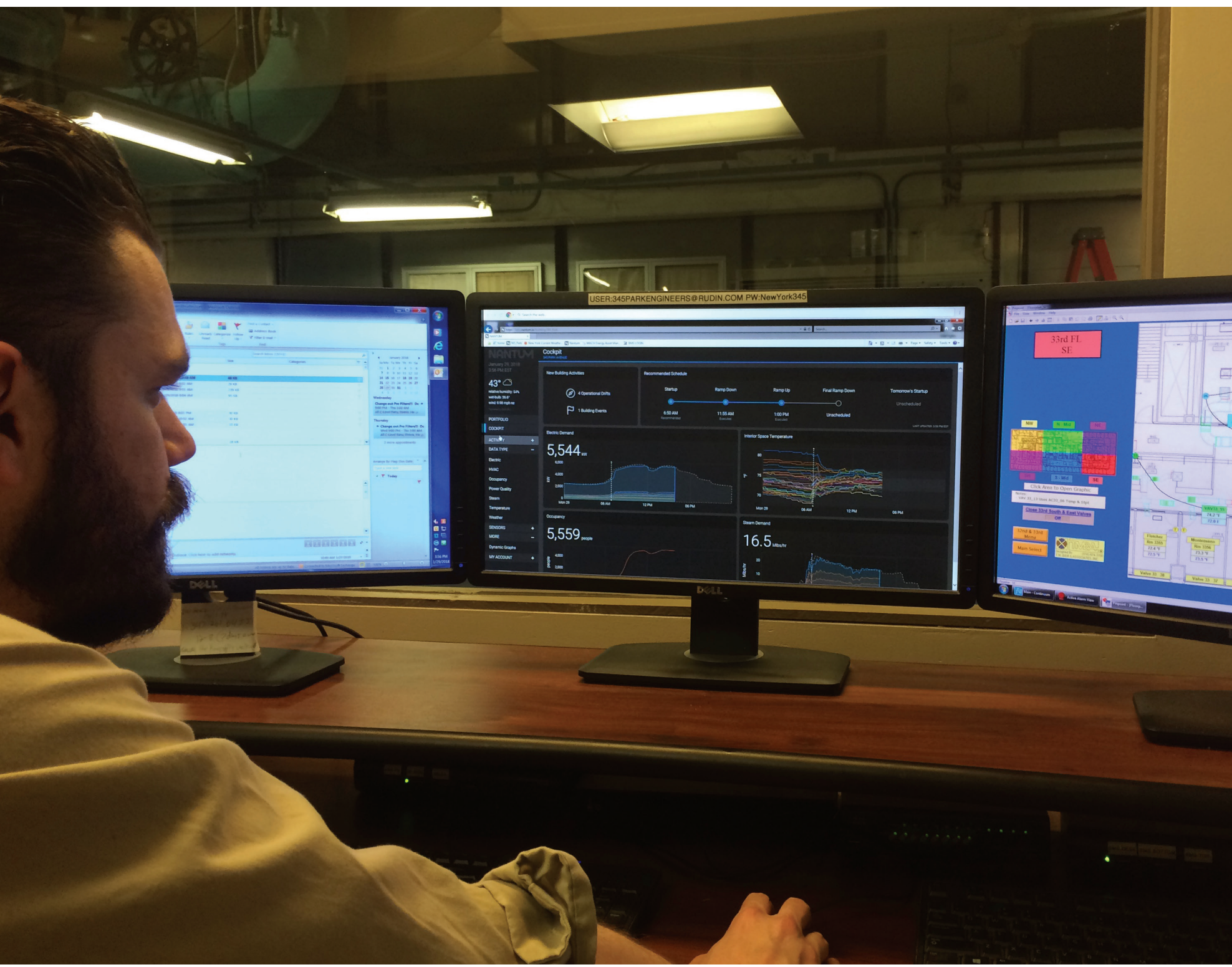
public incentives

**project team**

The Durst Organization  
HOK  
Vidaris  
Structure Tone  
Severud Associates

Environetics  
Cerami & Associates  
AKRF, Inc.  
Skanska  
Siemens

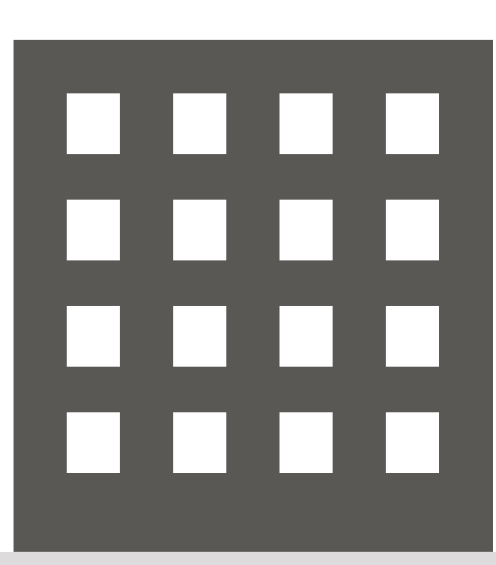
# 345 Park Avenue



Manhattan

An innovative building operating system responds to real-time occupancy data and environmental changes to predict and prescribe more efficient operations and reduce energy demands.

**building type**

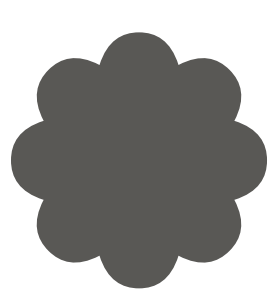


Large Residential

**built**  
1968

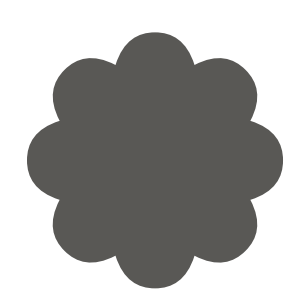
**retrofit**  
2013–2016

**heating fuel**



district steam

**cooling fuel**



district steam

**project team**

Prescriptive Data  
Rudin Operations  
345 Park Building Management  
Security By Design  
T.M. Bier & Associates  
URA Group  
Firecom, Inc.

**systems upgraded**



lighting



heating



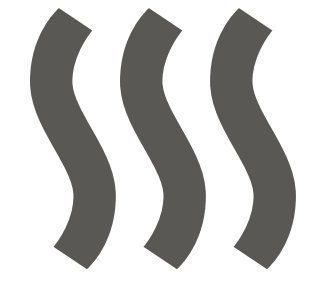
envelope



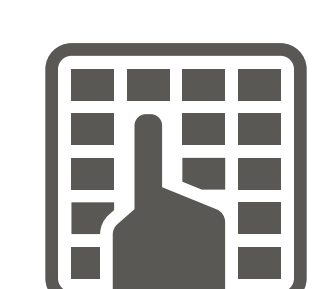
domestic hot water



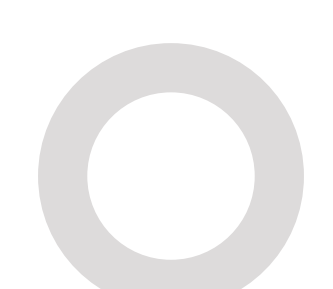
cooling



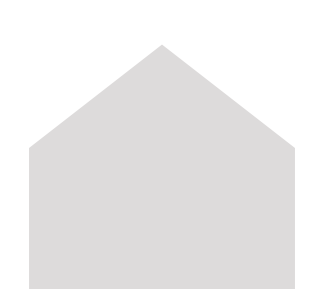
ventilation



controls



other



passive house

public incentives

**annual cost savings (est.)**  
\$600,000

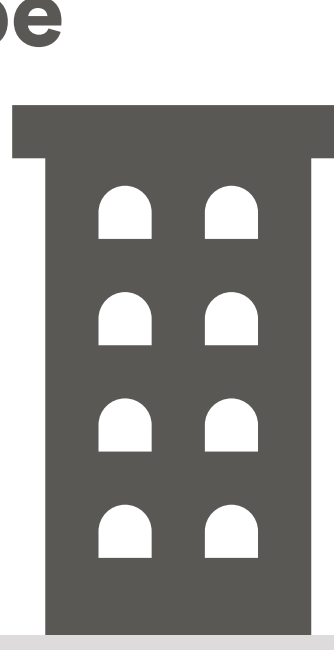
# 377 East 10th Street



Manhattan

This affordable housing gut renovation meets the Passive House standard to produce comfortable, healthy, and energy efficient homes for the tenants, many of whom have lived here for more than 20 years.

**building type**



Mid-size Residential

**built**  
1900

**retrofit**  
2015–2017

**heating fuel**



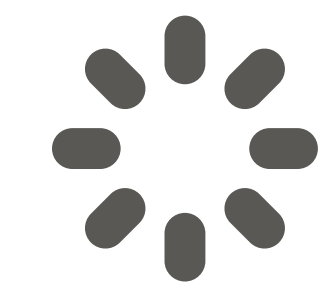
gas

**cooling fuel**

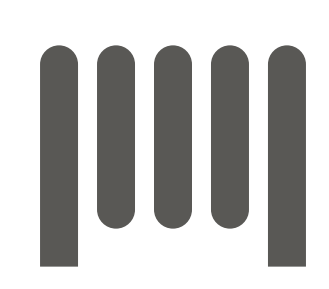


electric

**systems upgraded**



lighting



heating



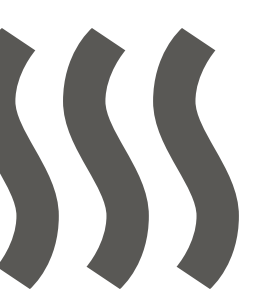
envelope



domestic hot water



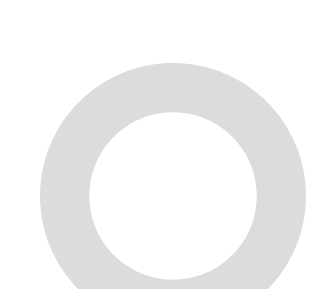
cooling



ventilation



controls



other



passive house

public incentives

**project team**

BFC Partners  
SMJ Development  
Urban Homesteading Assistance Board  
NYC Housing Preservation and Development  
Enterprise Green Communities  
Paul Castrucci Architect