

The Post-9/11 Lower Manhattan Transportation Vision: Planned & Realized

Course Number: **TH406**

Thursday, June 21, 2018

9:45 AM – 11:15 AM

Learning Units: 1.5

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Questions related to specific products and services may be addressed at the conclusion of this presentation.

Speakers List

- **Seminar Organizer:** Robert Eisenstat, FAIA – Chief Architect, Port Authority of New York and New Jersey (PANYNJ)
- **Seminar Presenter:** Robert Davidson, FAIA – Senior Vice President, Aviation + Multimodal Practice Lead, FAIA, STV Incorporated
- **Seminar Presenter:** Vincent Chang, AIA – Group Managing Partner, Grimshaw Architects
- **Seminar Presenter:** Rafael Pelli, FAIA – Partner, Pelli Clarke Pelli Architects

Course / Learning Objectives

- Explore how the cooperation of two public agencies and private development contributed to the important transportation network that transcended what would have been impossible otherwise.
- Examine the importance of balancing stakeholders' needs in a complex urban environment.
- Learn how good urban planning with strong ideas and an appropriate amount of flexibility can be realized in the final design.
- Discover how a transportation network in a dense urban environment, with clear connectivity to development, can work both above and below ground to create positive urban experiences.



LOWER MANHATTAN

From 1960's
to Present
Day

Transportation
Planning
Impacts on
Lower
Manhattan
Urban Fabric



STAKEHOLDERS

- ❑ Federal Government
- ❑ NY & NJ Government
- ❑ NYC Government
- ❑ Silverstein Properties
- ❑ Westfield WTC Retail
- ❑ Business Community
- ❑ Community Groups
- ❑ Advocacy Groups
 - ❑ New York New Visions
- ❑ Regional Plan Association
- ❑ **Countless Others**

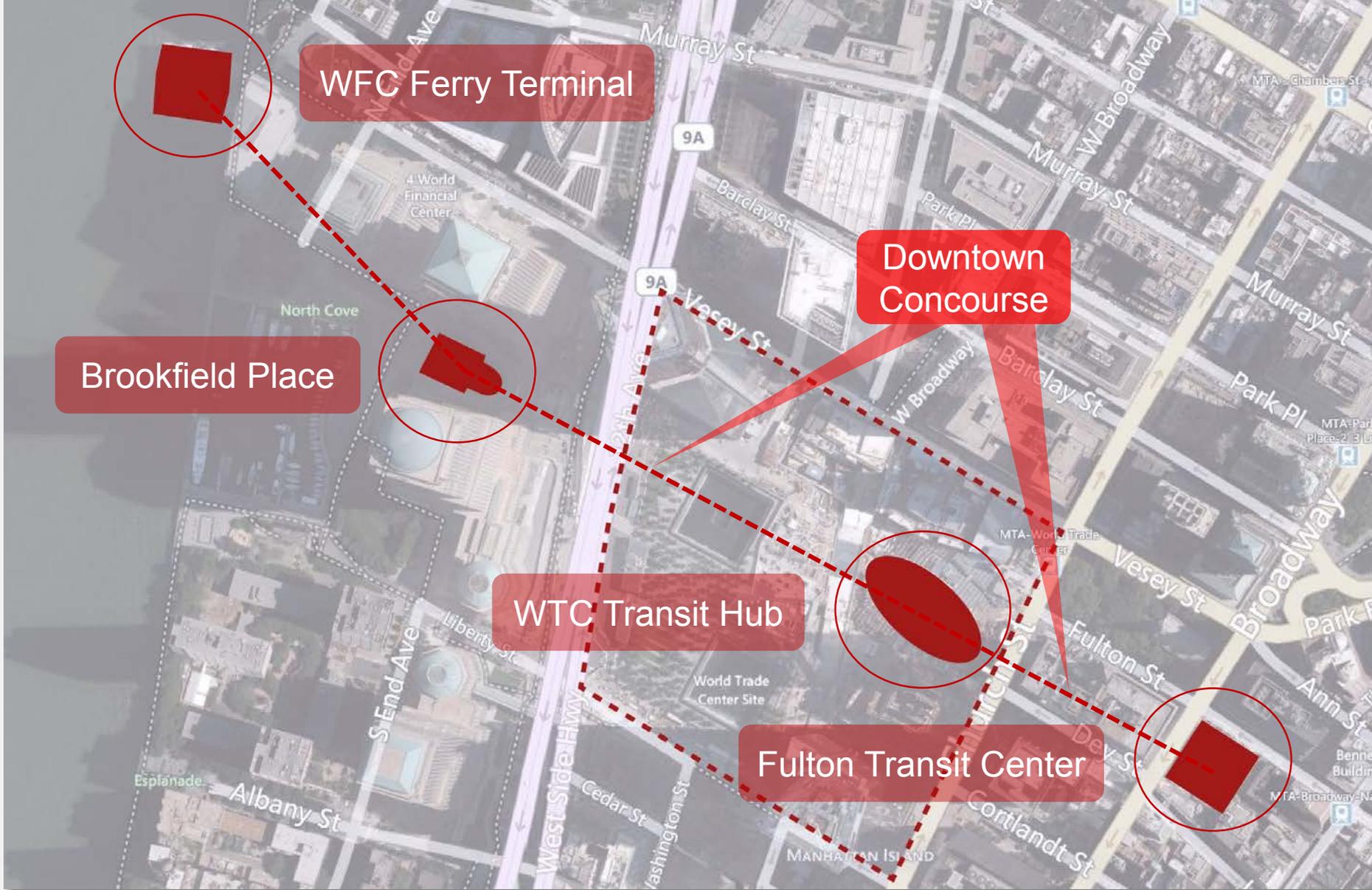
Presentation Program Overview

Robert Davidson, FAIA

Senior Vice President, STV Inc.

Former Port Authority Chief Architect

Transportation System Planning Serving as the
Catalyst for Urban Development Across Lower Manhattan

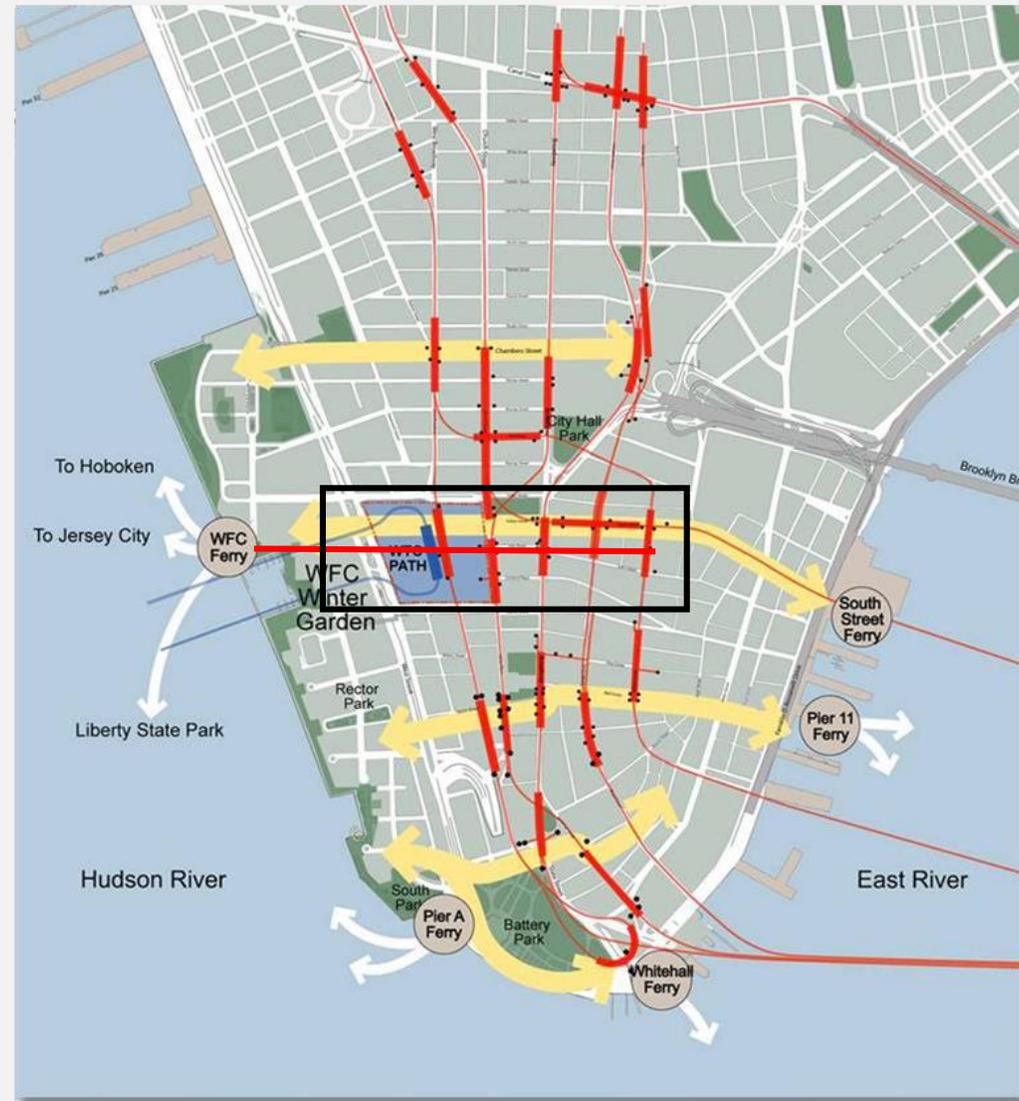
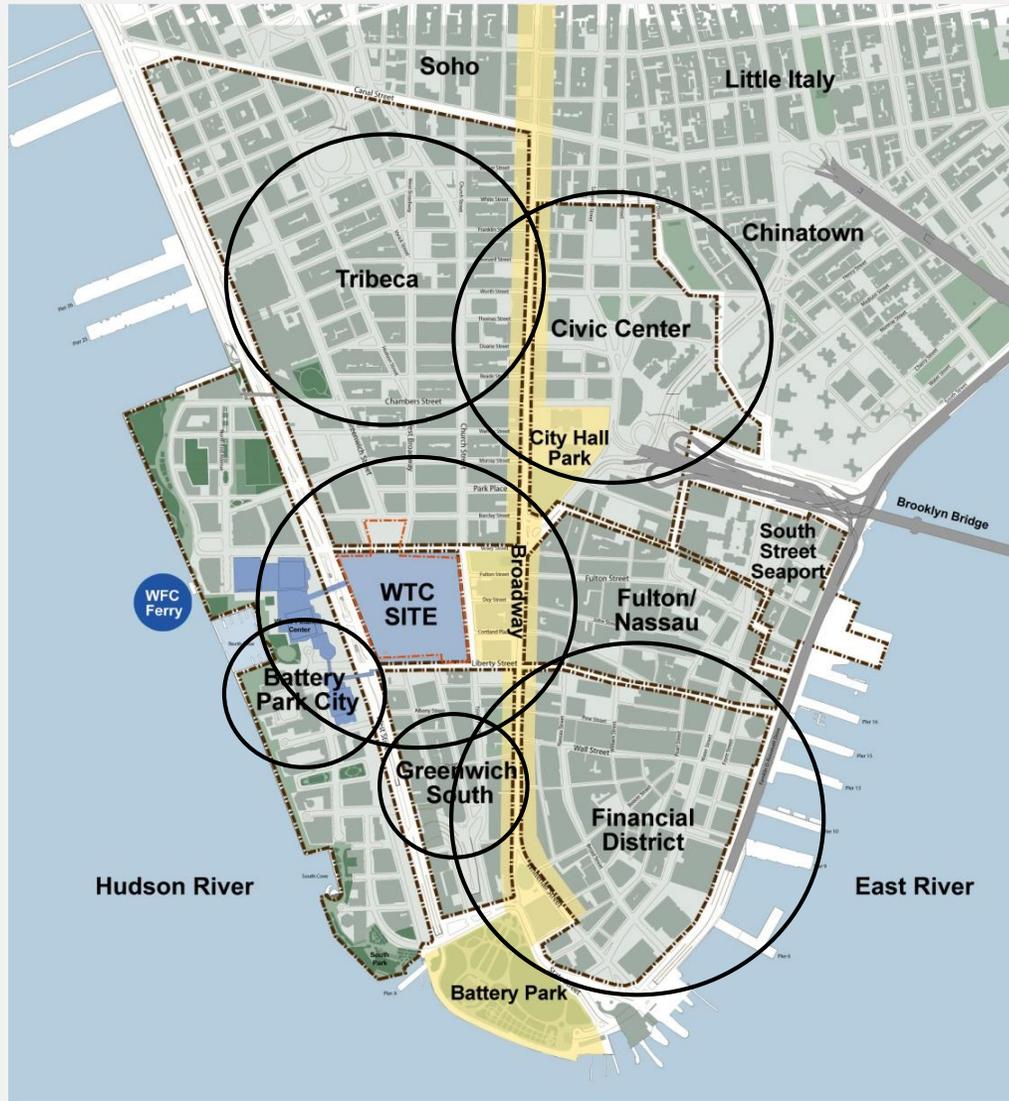


The Post-9/11 Lower Manhattan Transportation Vision:

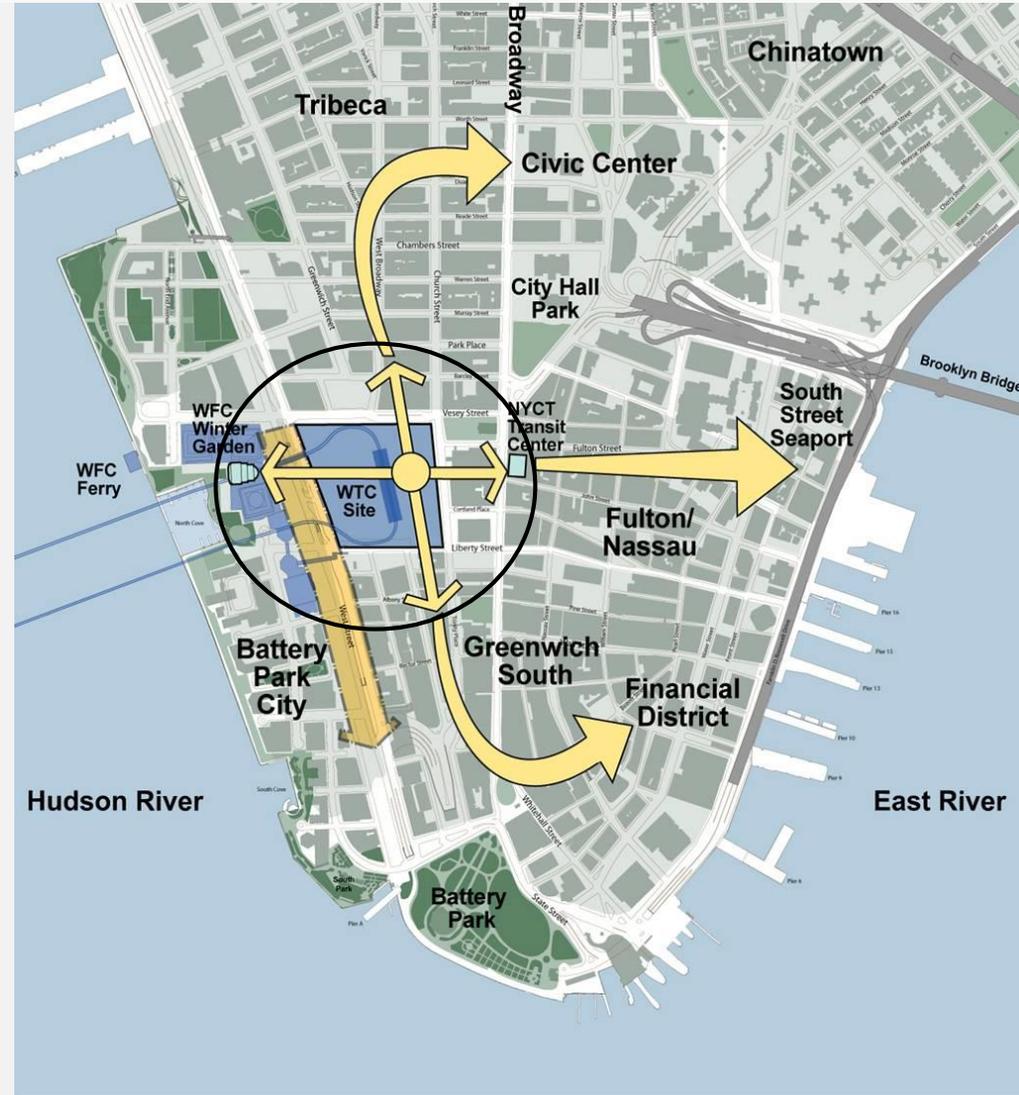
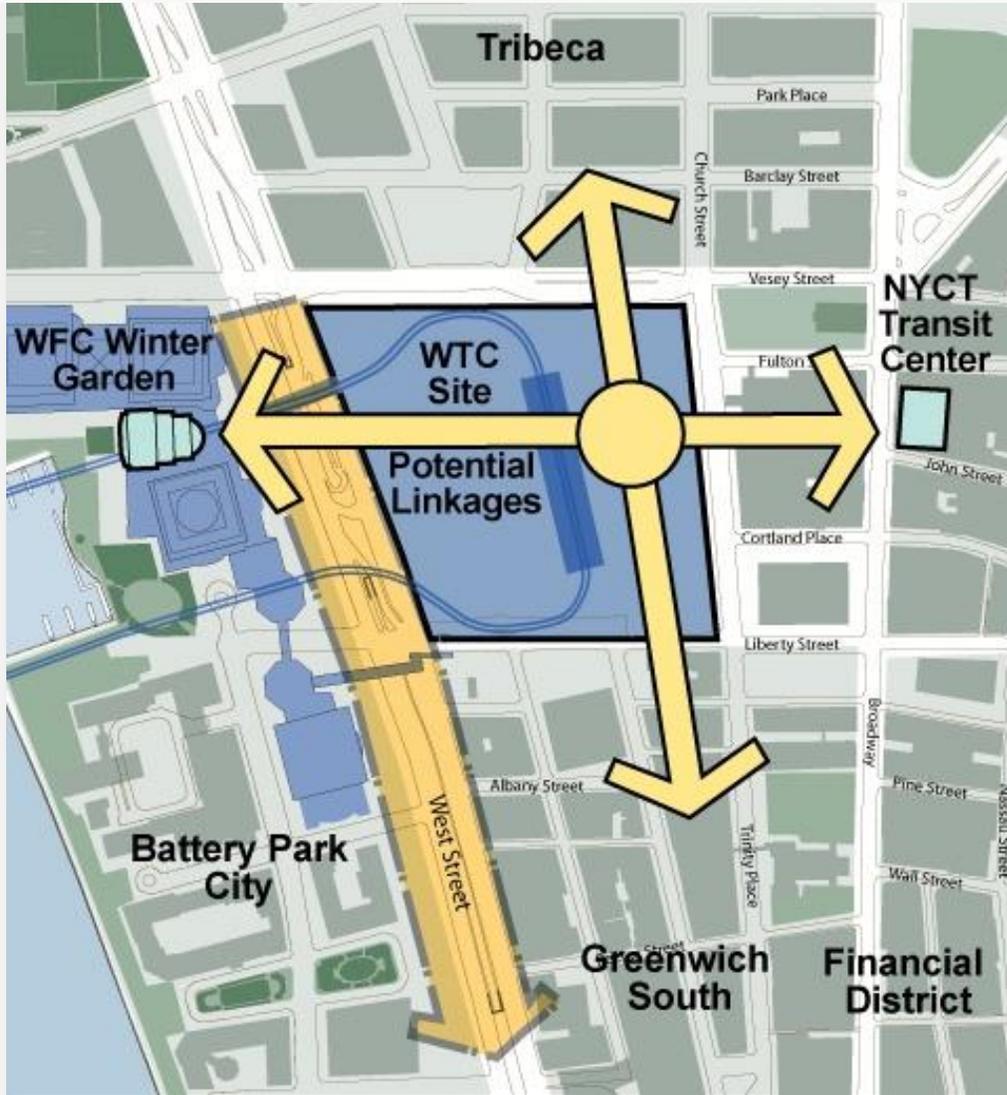
The Catalyst for Urban Development Across Lower Manhattan **via the Downtown Concourse**

A flexible plan that accommodated all future WTC mixed-use development & Neighborhood— as well as the Memorial and Museum course Daily.

Districts + Pedestrian Concentrations & Transit Links



Downtown Concourse as Catalyst for Urban Development



Presentation Program Topics

- Port Authority Trans Hudson (PATH) Temporary Station
 - Including the Church Street Viewing Wall
- Lower Manhattan Transportation Master Plan
 - WTC Transit Hub
 - World Financial Center (WFC) Ferry Terminal
- New York City Transit (NYCT) Fulton Transit Center
- World Financial Center (WFC) Brookfield Place

Port Authority of NY & NJ

WTC Temporary PATH Station

Returning the Trade Center to the Public Realm

Church Street Viewing Wall

ST. PAUL'S CHAPEL





ST. PAUL'S CHAPEL

- Early De Facto Memorial Site





VIEWING WALL

- A Public Place
Along Church Street to
Provide Site Security
- A Viewing Portal
into the WTC Site
- An Interim Memorial
- **First Phase
of the Temporary
PATH Station**



VIEWING WALL

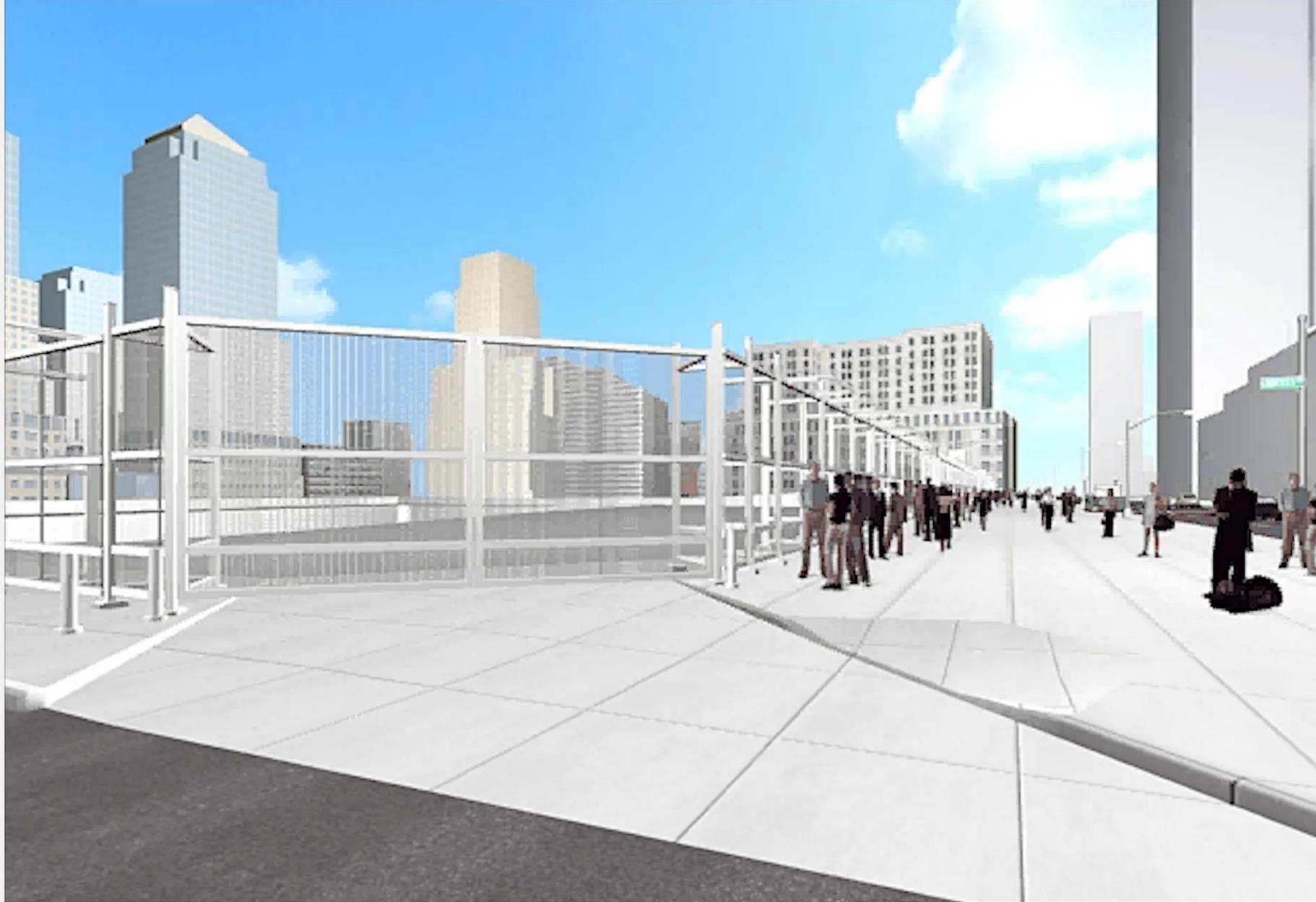
Restoring
the Public
Realm along
the WTC site



VIEWING WALL

Restoring the Public Realm along the WTC site





VIEWING WALL

Streetscape
Consensus-
Building

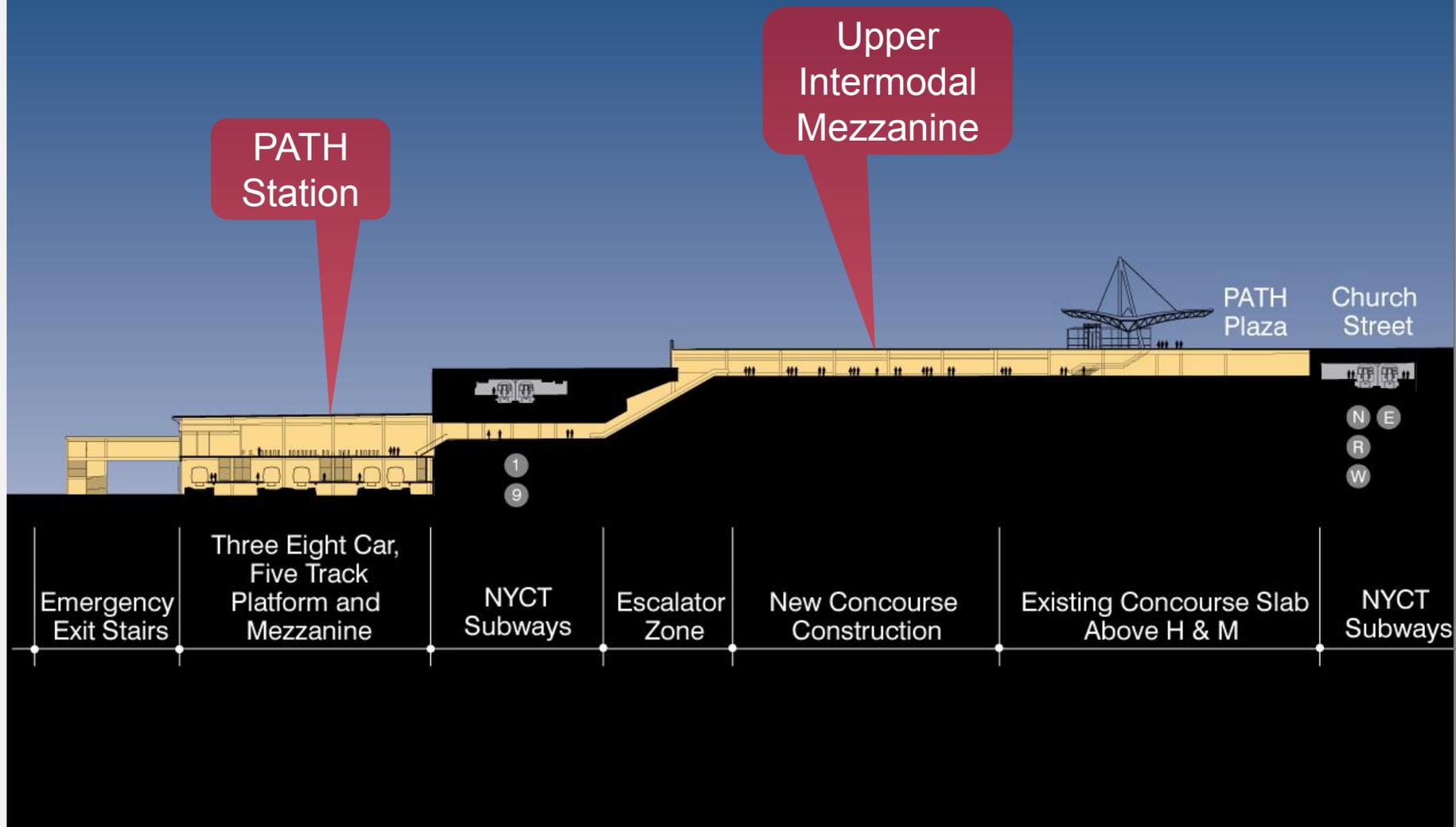
Port Authority of NY & NJ

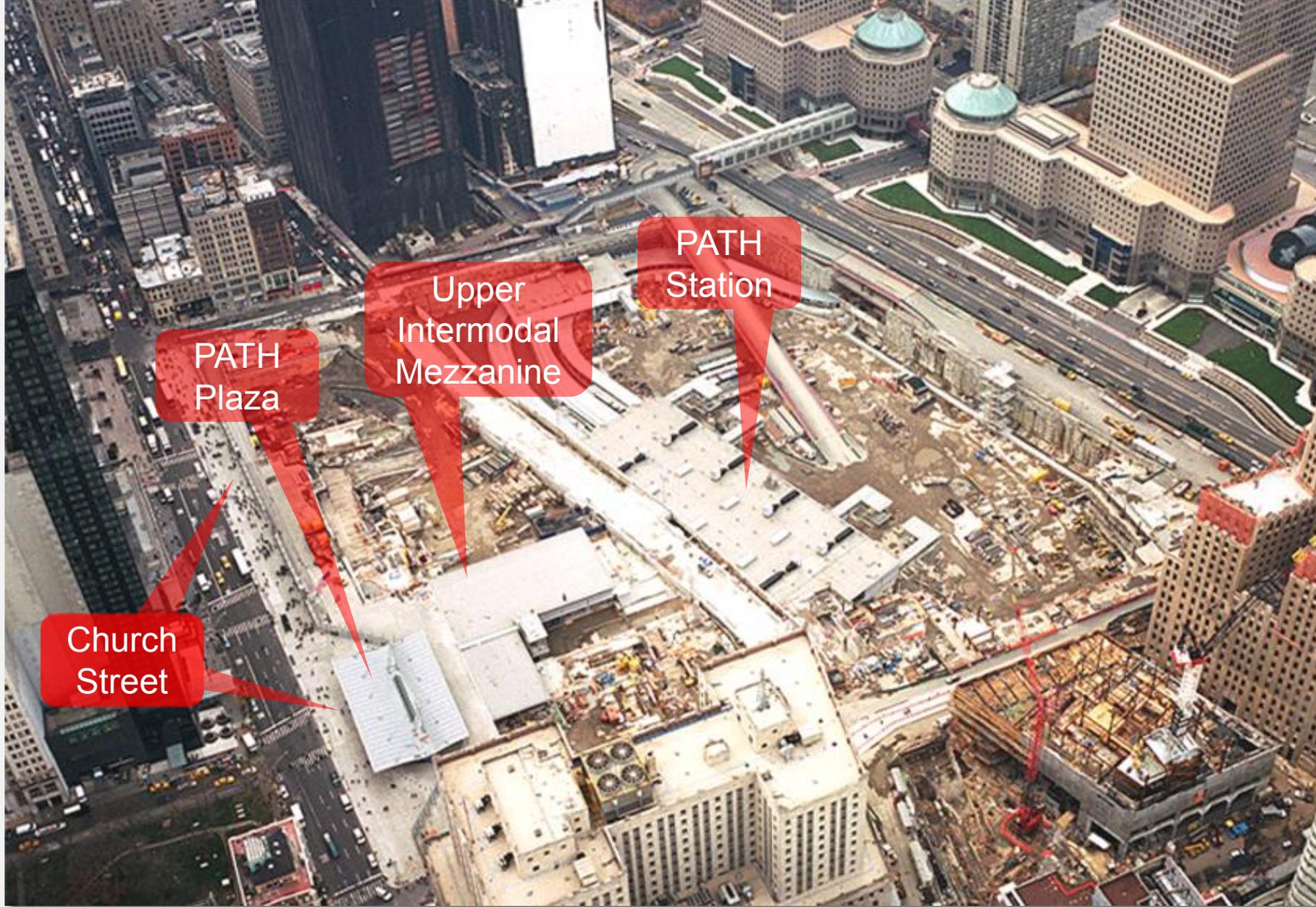
WTC Temporary PATH Station

Returning Transportation to Lower Manhattan

TEMPORARY PATH STATION

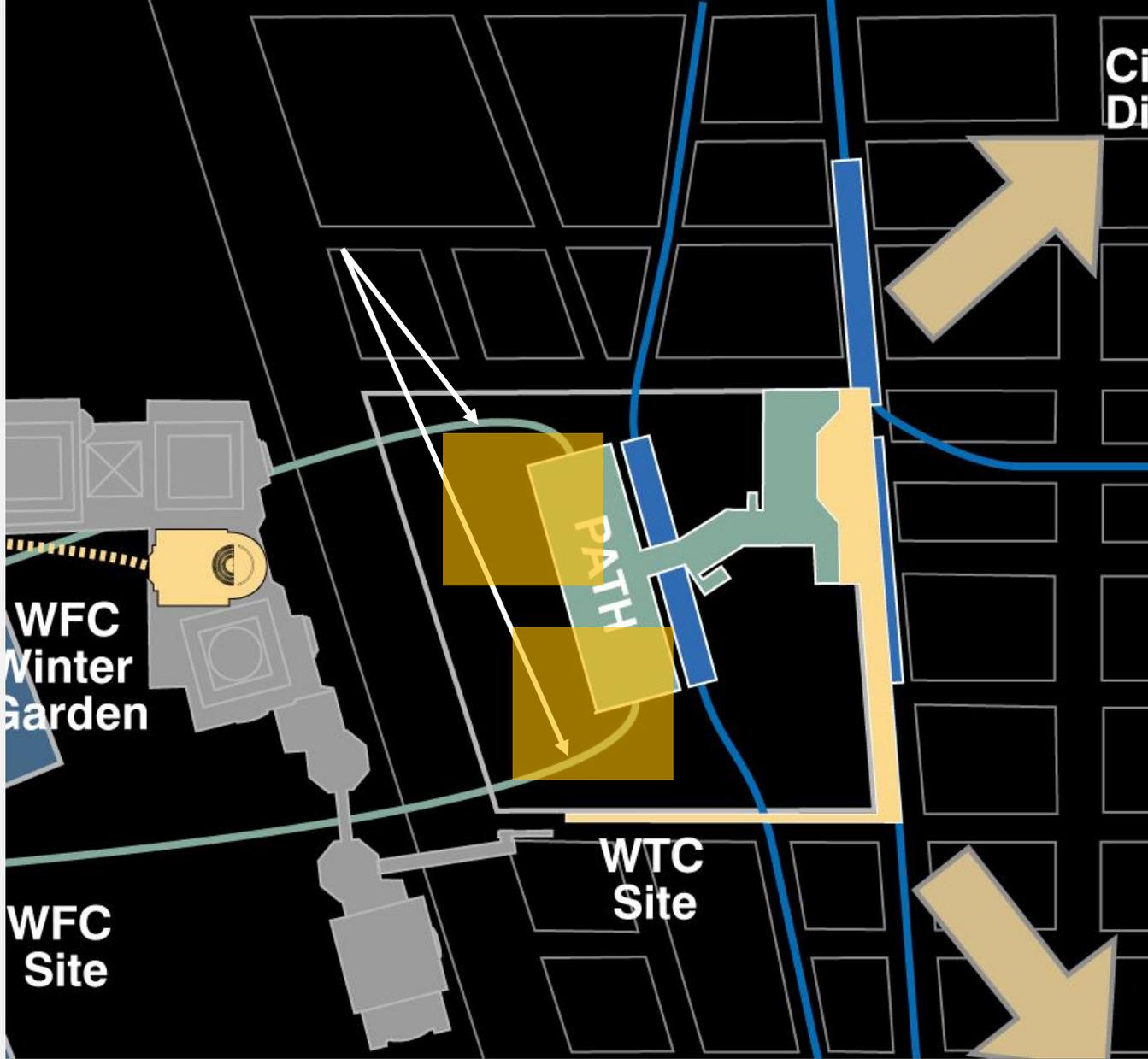
From Rebuilt
Station to
Church St.
PATH Plaza





TEMPORARY PATH STATION

Continuing
to Restore the
Public Realm
Along the
WTC Site



TEMPORARY PATH STATION

- Upper Mezzanine Spanning Over East Bathtub – Opportunity for Church Street **PATH Plaza**
- Lower Manhattan Development Corporation (LMDC) – Family Advisory Council Meeting – **PATH Tracks in Tower Footprints**



TEMPORARY PATH STATION

PATH Plaza
Returns Transit
to the WTC
& Lower
Manhattan

TEMPORARY PATH STATION

Transit
Consensus -
Building





TEMPORARY PATH STATION

Platform Zone
Marking
Significant
Sites in Lower
Manhattan



TEMPORARY PATH STATION

Large
Volumes of
Public Space +
Natural Light
Enabling
Intuitive
Wayfinding

Station



TEMPORARY PATH STATION

Intermodal
Connections to
NYCT Subways

TEMPORARY PATH STATION

PATH Plaza
Formally
Reopens WTC
Site Along
Church Street



Port Authority of NY & NJ

World Financial Center (WFC) Ferry Terminal

Connecting Water Transit to the Downtown Concourse

August 2001

- 36,000 Weekday Passengers (Average)
- 15 Routes
- 5 Private Operators

November 2002

- 70,000 Weekday Passengers (Average)
- 30 Routes
- 6 Private Operators



WFC FERRY TERMINAL

Ferry Service Increased Dramatically Post 9/11



WFC FERRY TERMINAL STAKEHOLDERS

- Port Authority of NY & NJ (PANYNJ) – Tenant
- Battery Park City Authority (BPCA) – Lessee
- NY Waterway – Ferry Operator
- NY City Planning/DEP

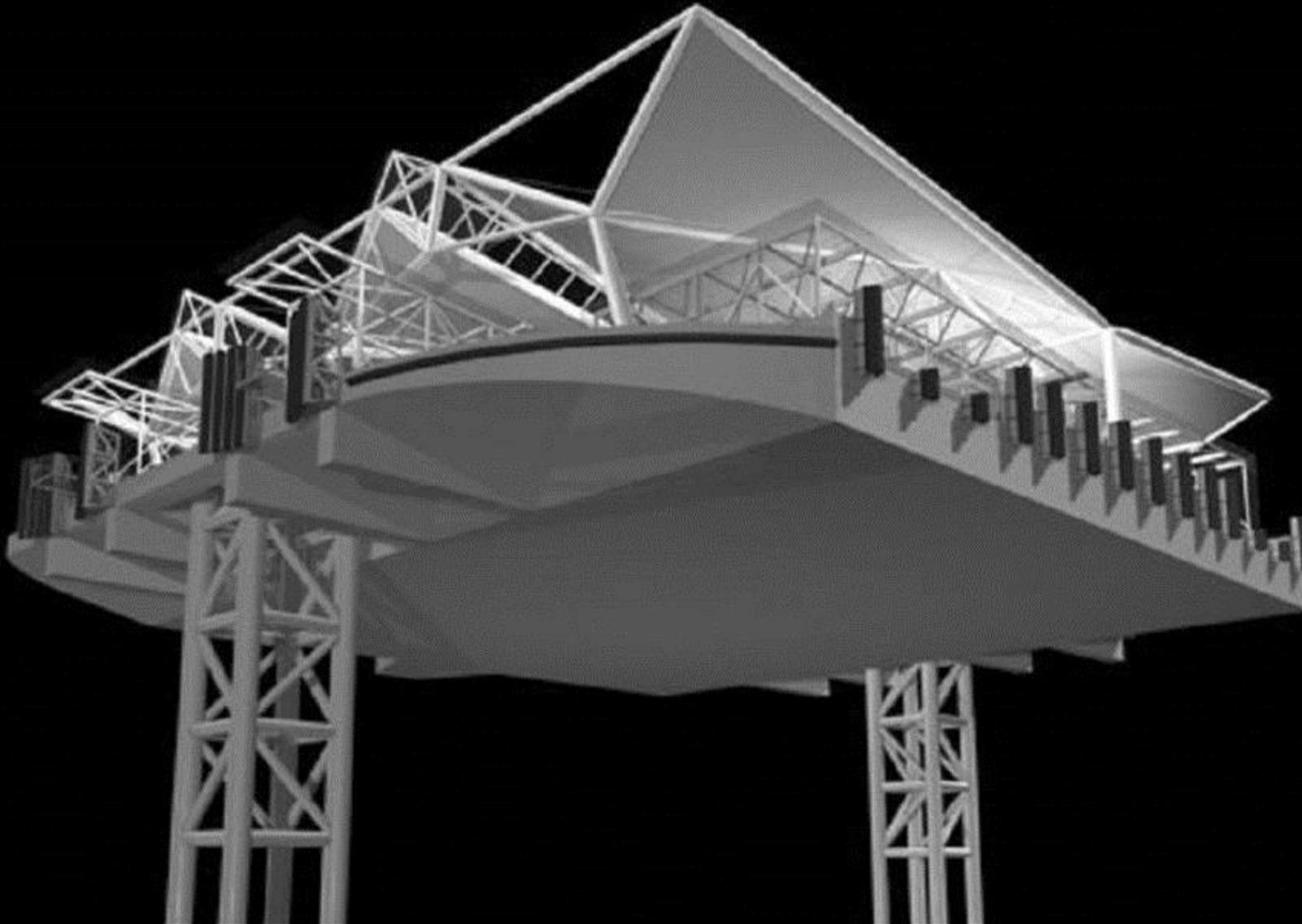


DESIGN CRITERIA

- ❑ Multi-Operator Terminal
- ❑ Floating Facility
- ❑ Open Windscreened Pavilion; Tensile Fabric Roof Structure
- ❑ An Extension of the WFC Esplanade –
- **in a Park-Like Setting**

DESIGN CRITERIA

- Designed to Ocean-going Structural Criteria – Floating Platform Built Like a Ship





WFC FERRY TERMINAL

- Floating Platform Built in Gulf Coast
- Terminal Built in Brooklyn Navy Yard
- Anchored Along WFC Esplanade

WFC FERRY TERMINAL

Western
Terminus of
Lower
Manhattan
Transportation
Master Plan



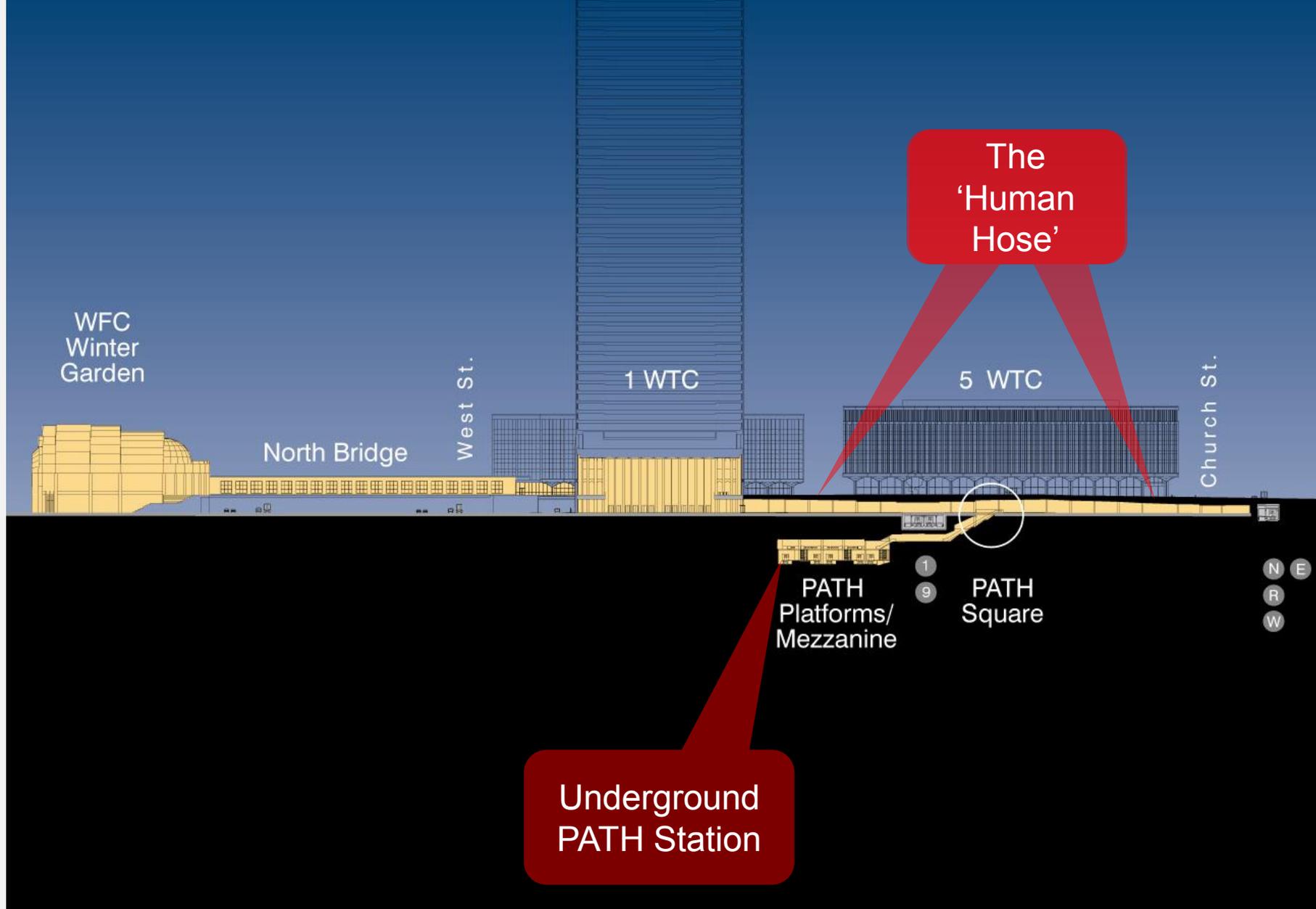
Port Authority of NY & NJ

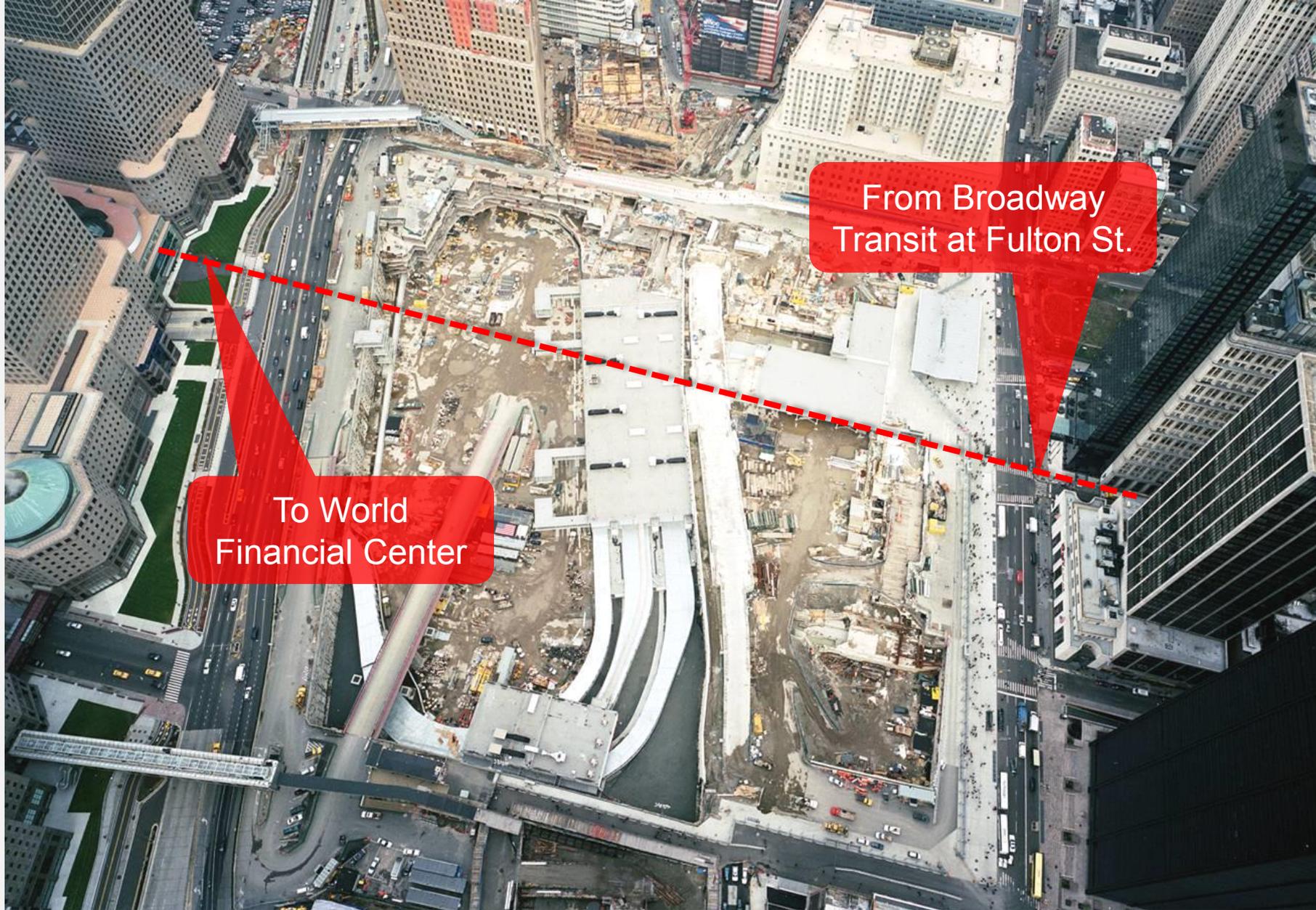
Lower Manhattan Transportation Master Plan

Connecting Rail Transit & Ferry Service via the
Downtown Concourse

LOWER MANHATTAN TRANSP. MASTER PLAN

Transforming
the WTC Site
as the
Master Plan
Centerpiece

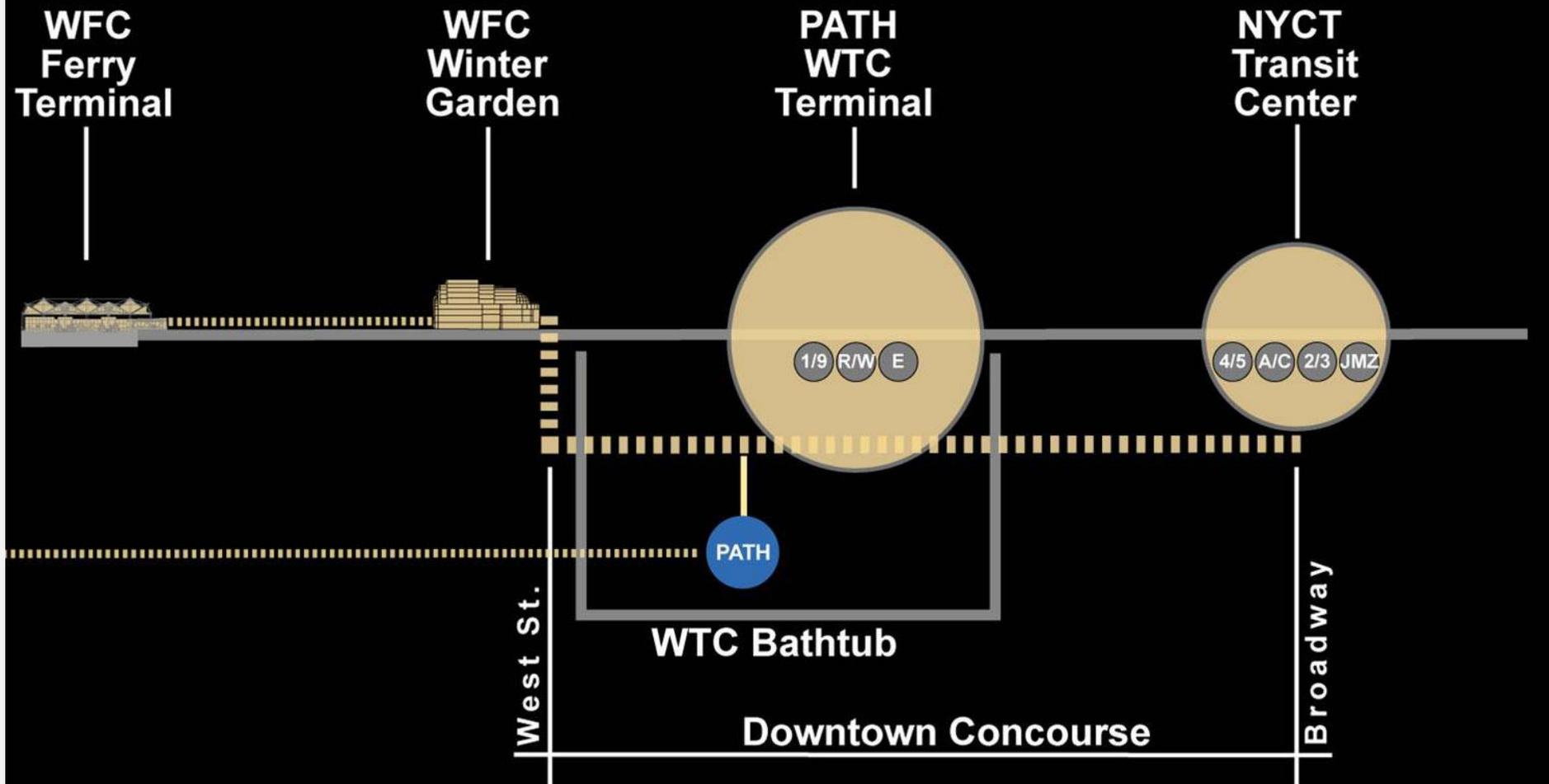




LOWER MANHATTAN TRANSP. MASTER PLAN

Connecting the
World Financial
Center &
Broadway
Transit thru
WTC Site –

The Downtown
Concourse



Listening to the City

A Game-Changer in Terms of Public Expectations

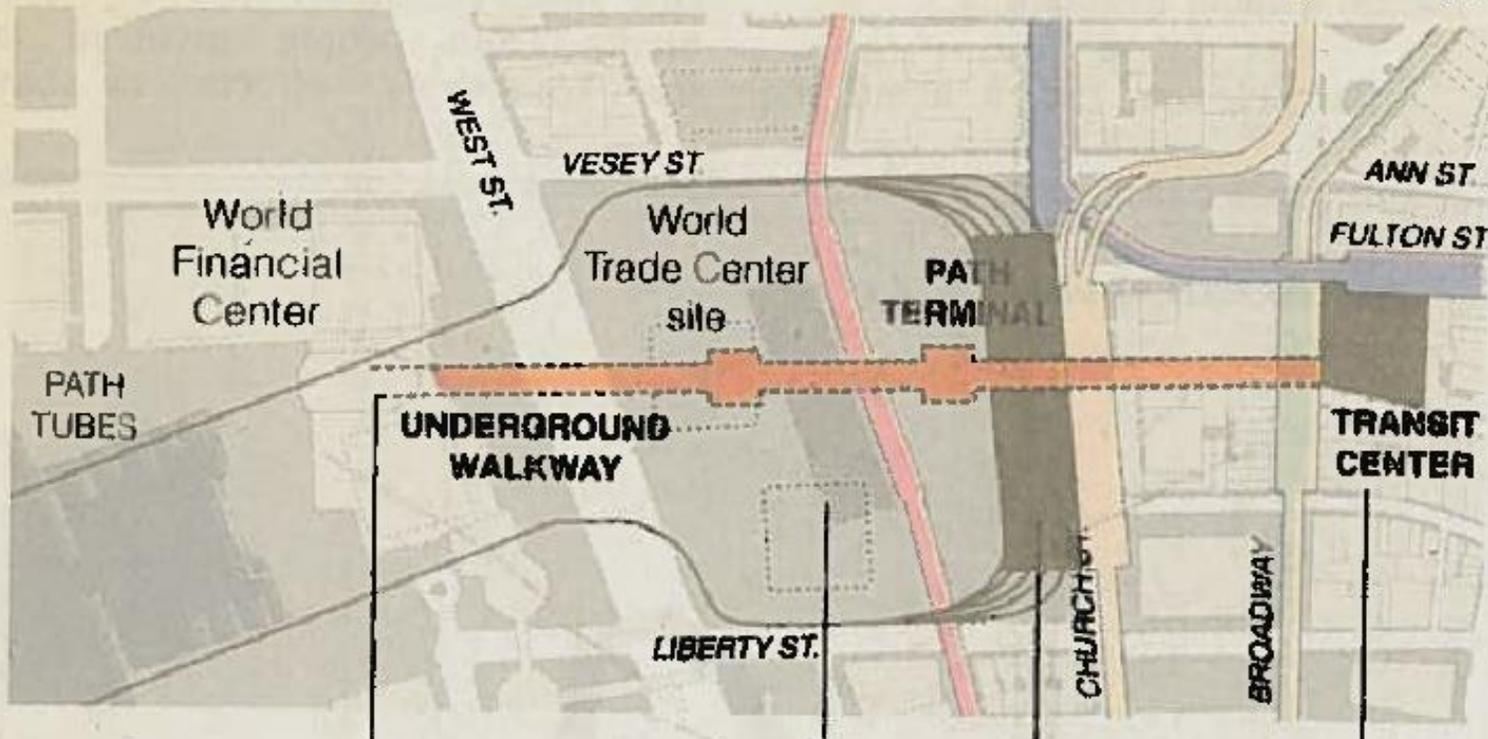
LISTENING TO THE CITY

.....”and a new transportation center – dubbed a ‘downtown Grand Central’ that was designed to allow commuters to transfer from ferries and New Jersey PATH trains to the New York City subway”.



Transit Plan Would Connect Dots Downtown

Subway lines remain in place. 1,9 A,C,E N,R 4,5



A moving walkway would extend underground from the Winter Garden

ALTERNATE PREFERRED
PATH station would be rebuilt at one of two sites

The walkway would end at a transit center

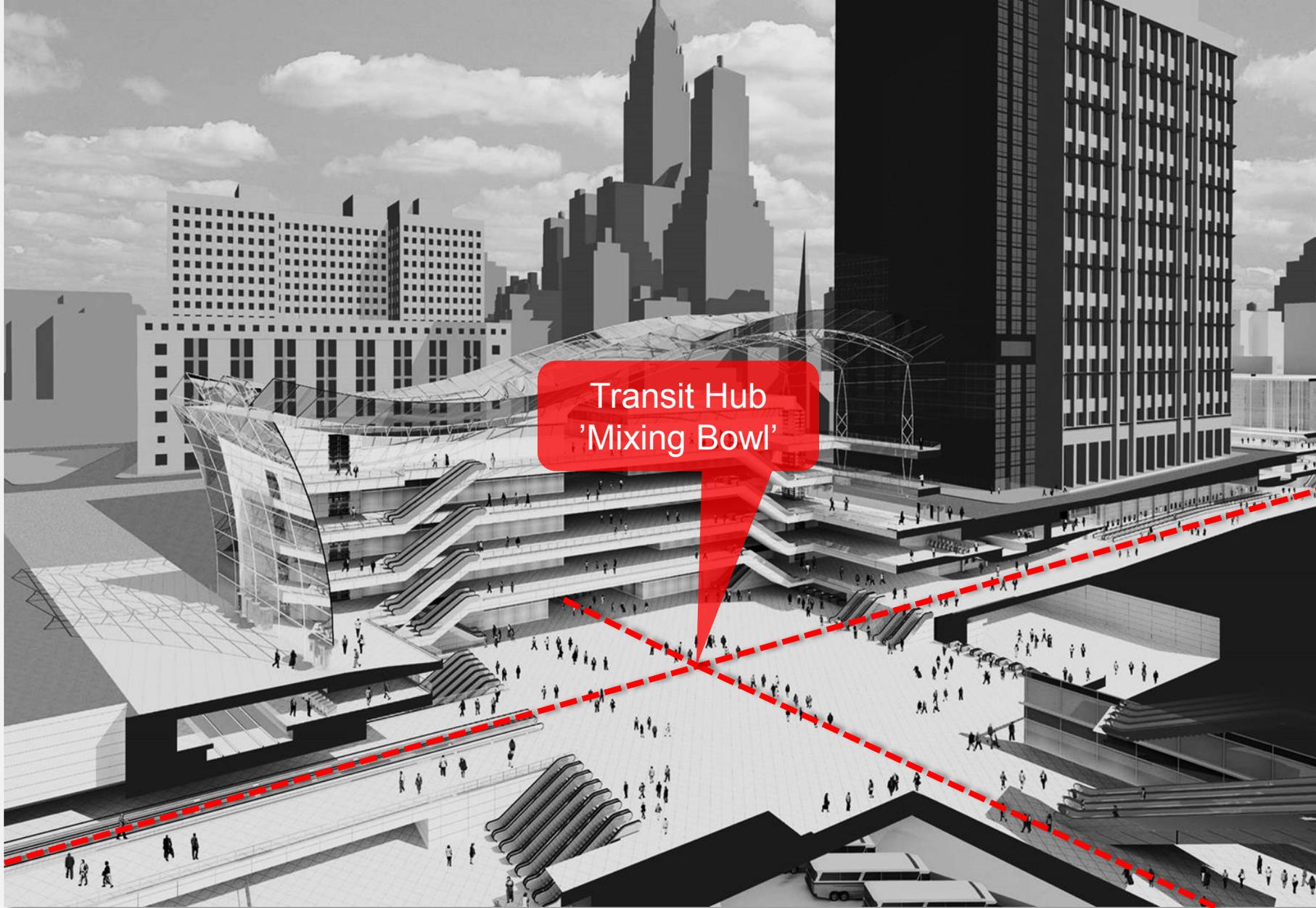
Source: Port Authority of New York and New Jersey

The New York Times

By RANDY KENNEDY

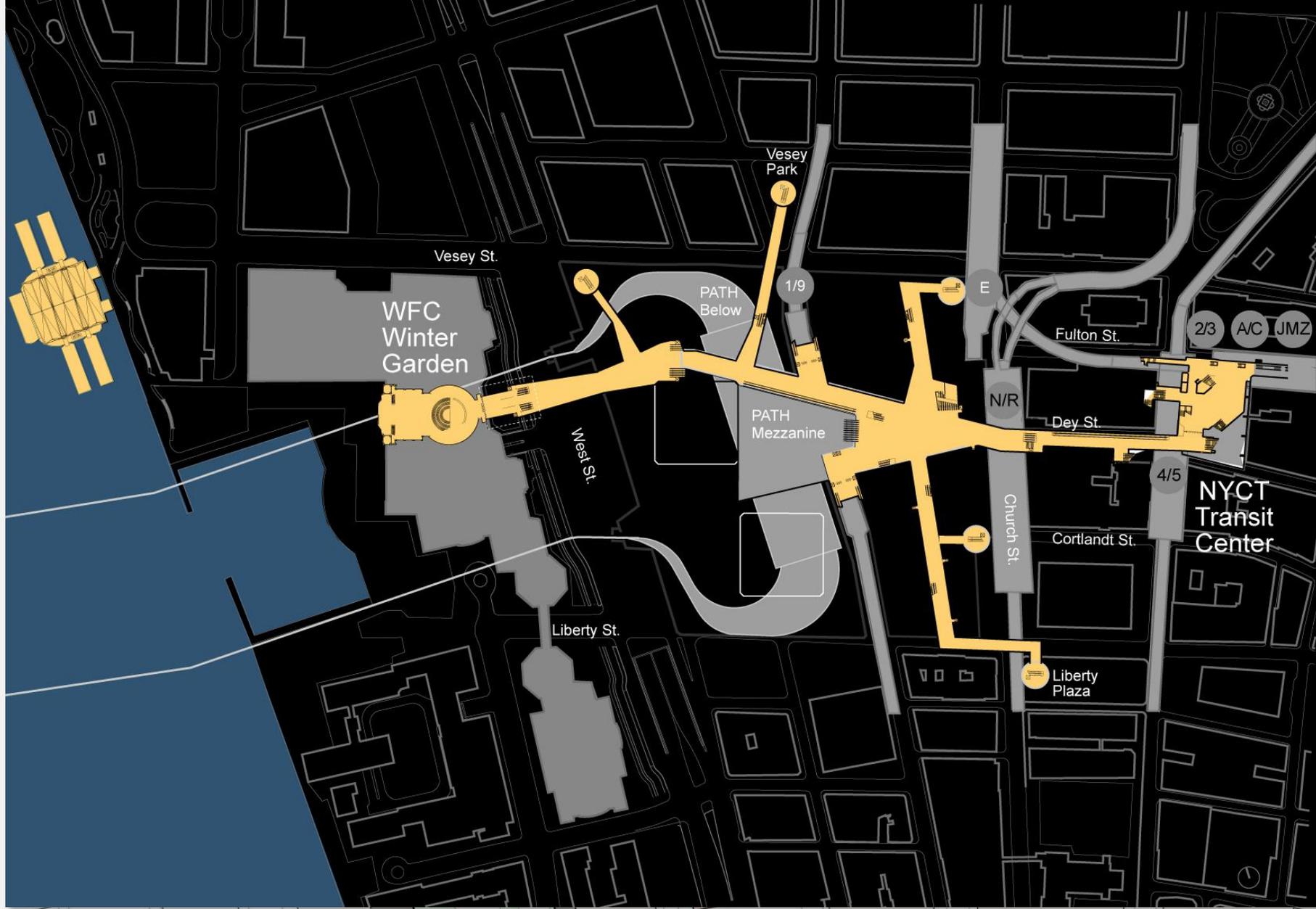
The Port Authority of New York and New Jersey has put the finishing touches on an ambitious blueprint for rebuilding the crumbled transit network beneath Lower Manhattan, proposing to unite a tangle of unlinked train lines with a huge underground pedestrian concourse and moving sidewalks.

The agency's architects, who will begin showing the plan to city and state officials and developers over the next few weeks, stress that it could change substantially before the first shovel goes into the ground. But the plan, which could cost \$2 billion to \$3 billion, represents the culmination of months of thinking by transportation experts, who were given the rare chance to envision not



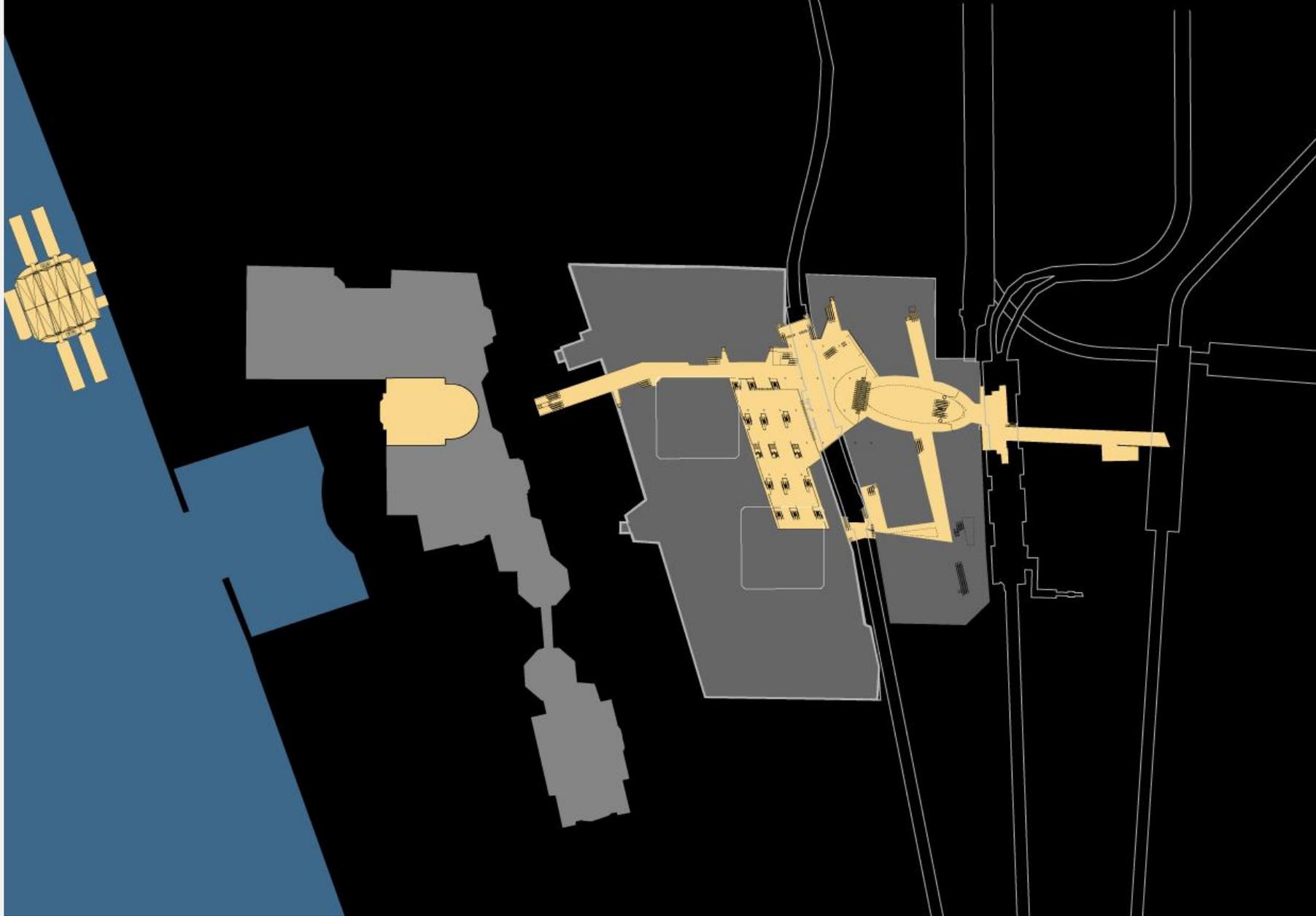
LOWER MANHATTAN TRANSP. MASTER PLAN

The Downtown
Concourse
Merging thru
the WTC
Transit Hub
Concept Vision



A REGIONAL TRANSIT HUB

Flexible plan –
seamlessly
integrated
with existing &
proposed
transportation
infrastructure,
the WTC site,
the Museum,
Memorial & its
surroundings



A REGIONAL TRANSIT HUB

Flexible plan –
seamlessly
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infrastructure,
the WTC site,
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Memorial & its
surroundings

WTC Transit Hub Planning

Laying the Groundwork for the Vision



DESIGN CRITERIA

- ❑ Multiple Points of Entry + Exit from Street & Path Mezzanine
- ❑ Visual Connectivity & Natural Light in an Environmentally Controlled Public Space
- ❑ **Integrated Retail & Commercial Development**

DESIGN CRITERIA

Integrated
Retail &
Commercial
Development



WTC Transit Hub

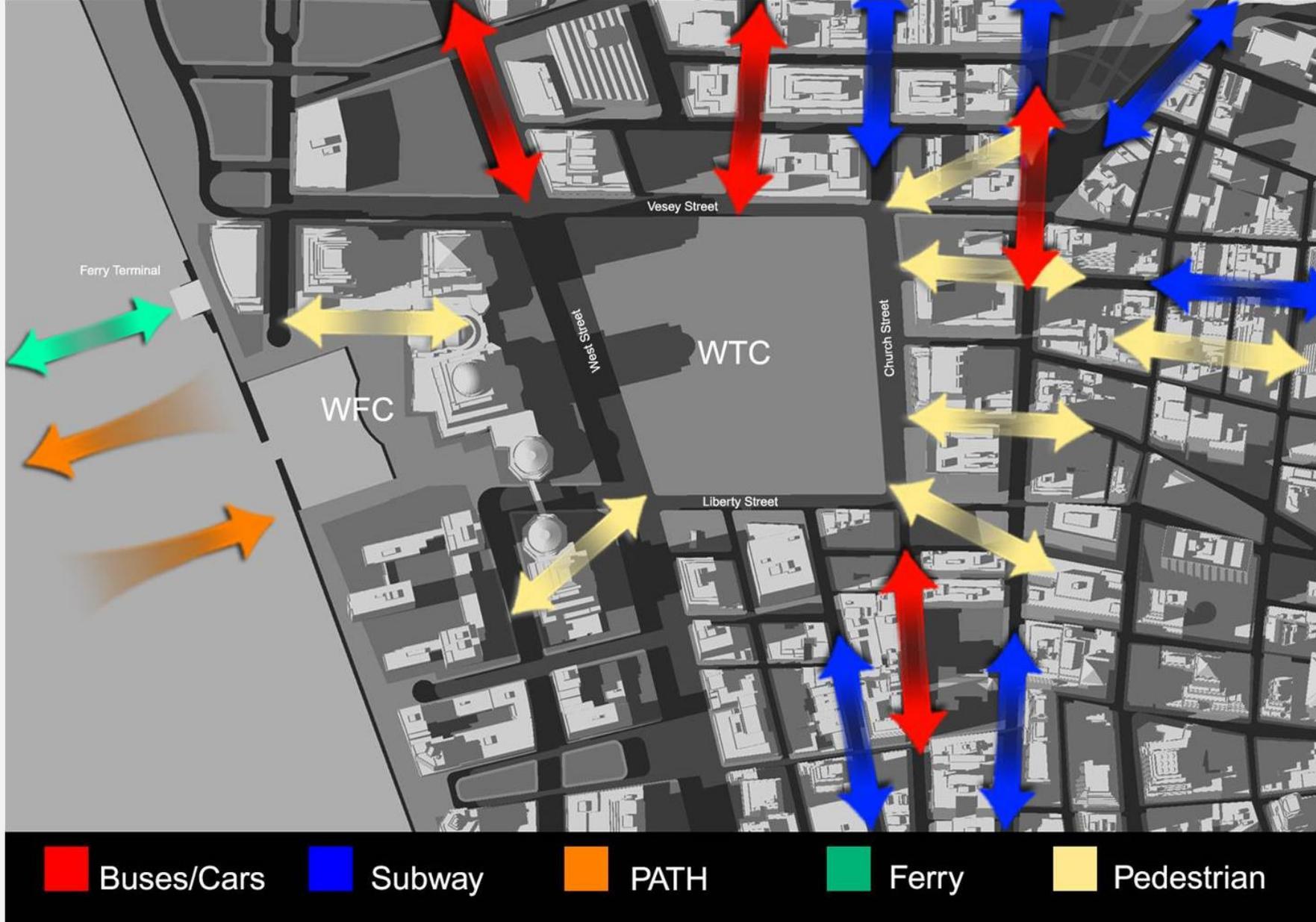
The 'Grand Central' of Lower Manhattan

Downtown Concourse Connects 4 Individually Expressive
Transportation + Public Space Portals to
Commercial & Residential Districts

“The Concourse will suck the life out of Lower Manhattan”

DESIGN CRITERIA

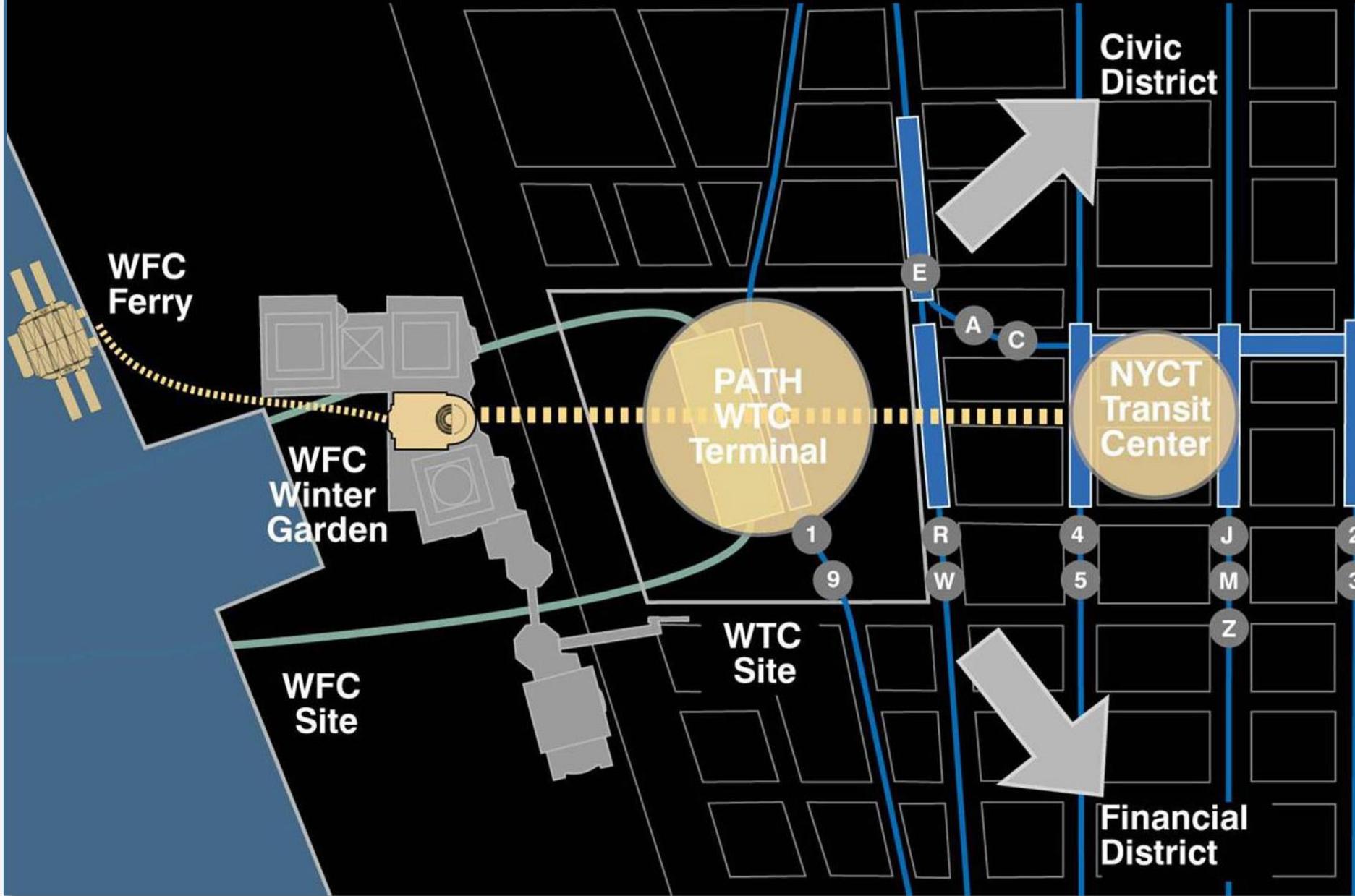
- Multiple Pedestrian Entry/Exit Points From Street & Commercial/ Transit Portals





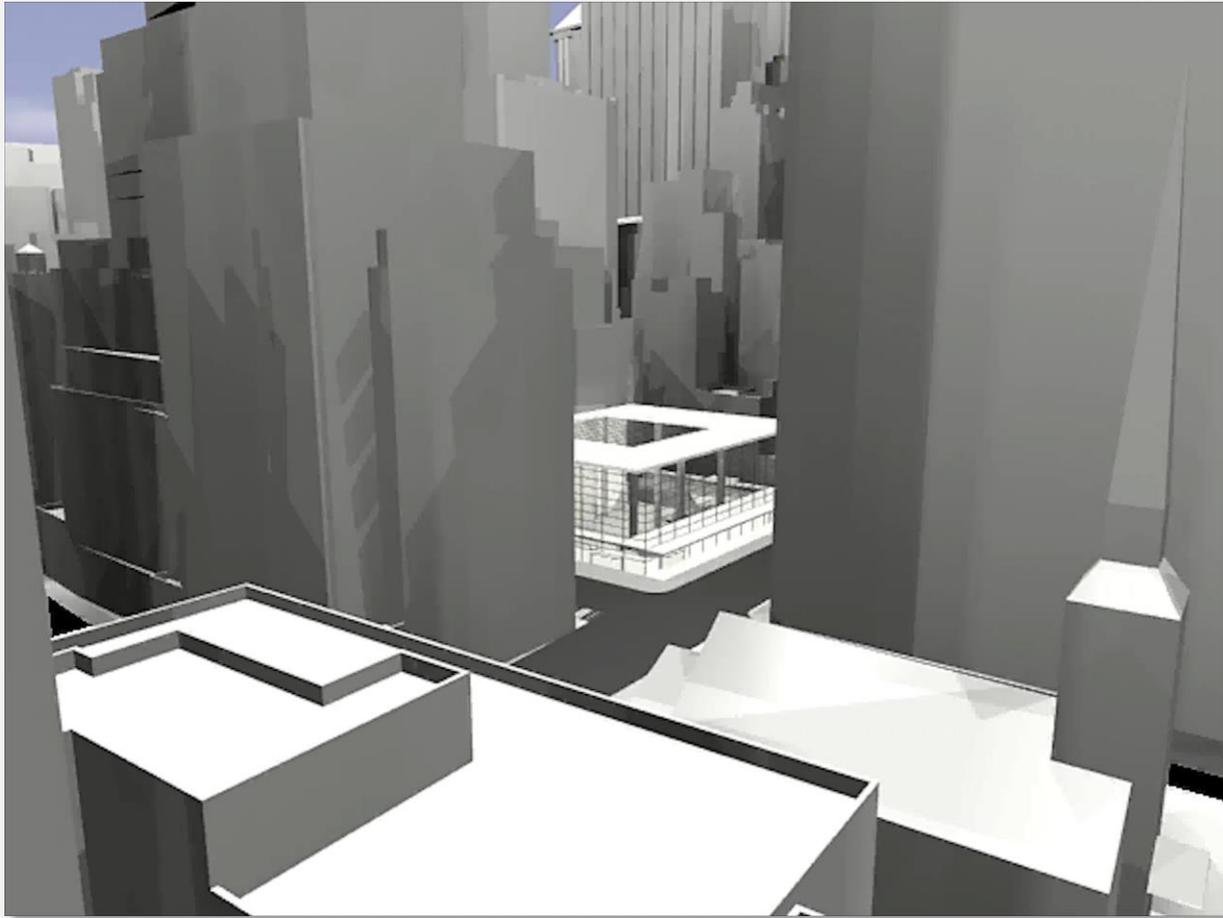
GRAND CENTRAL TERMINAL

- Visual Connectivity & Natural Light
- Environmentally Controlled Space
- World Class Transportation Architecture

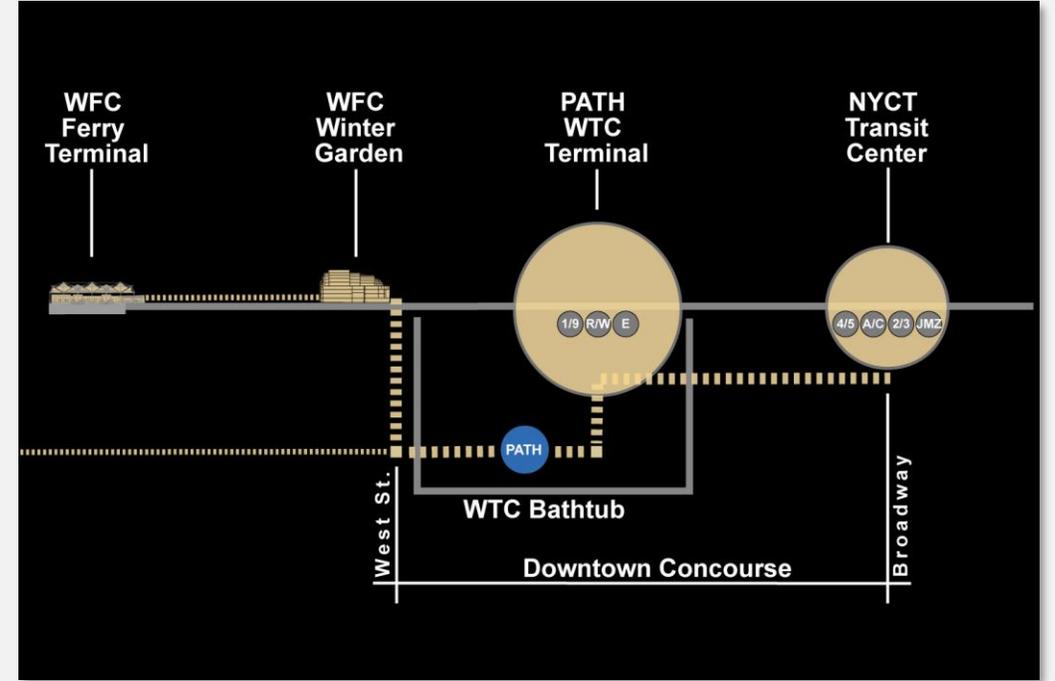


WTC TRANSIT HUB

- Downtown Concourse Multiple Entry Points



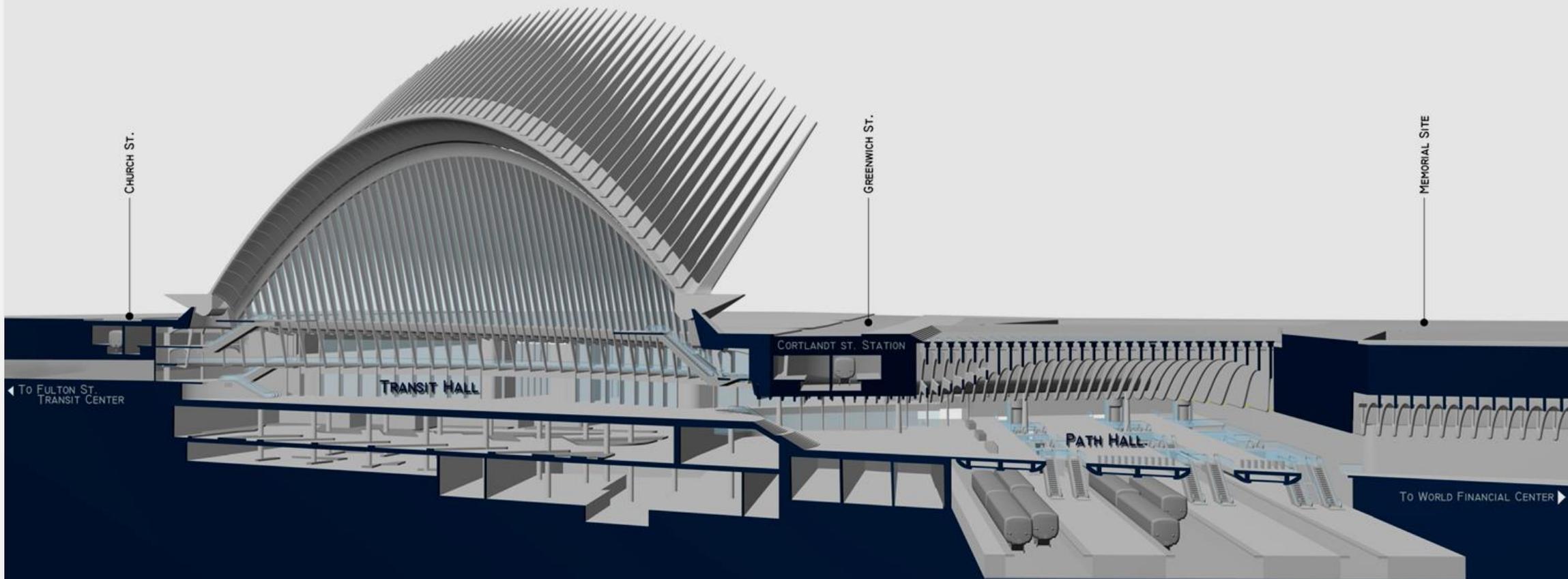
Planning Vision Transformed



Downtown Concourse Meets PATH

WTC Transit Hub

Resulting From Master Plan



Downtown Concourse



- ❑ Oculus
Mixing Bowl
- ❑ Concourse to
Fulton Transit
Center
- ❑ To PATH
Mezzanine
- ❑ Downtown
Concourse to
Brookfield
Place &
WFC Ferry
Terminal



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June 21-23, New York City

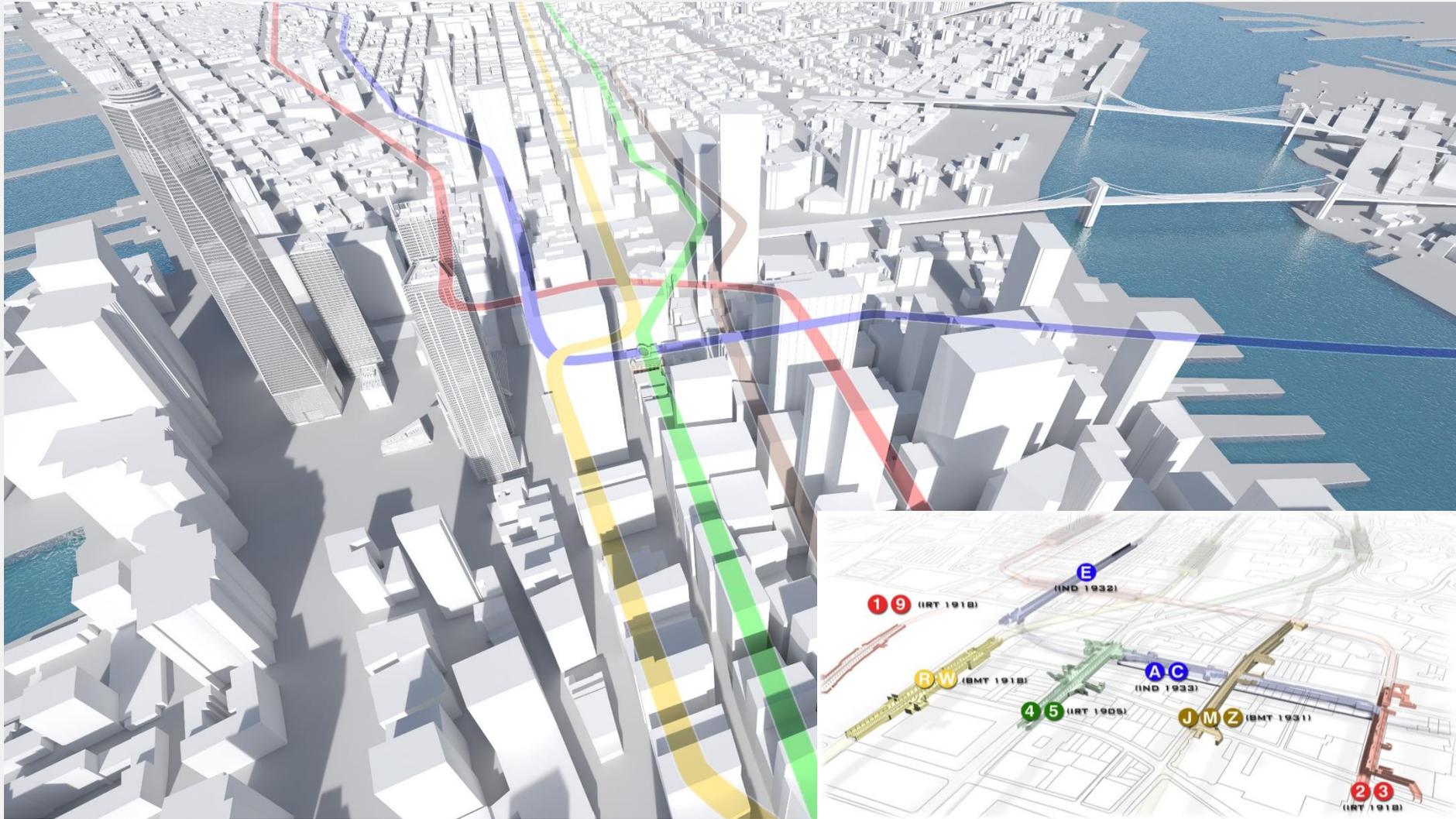
The Downtown Concourse

New York City Transit

Fulton Transit Center

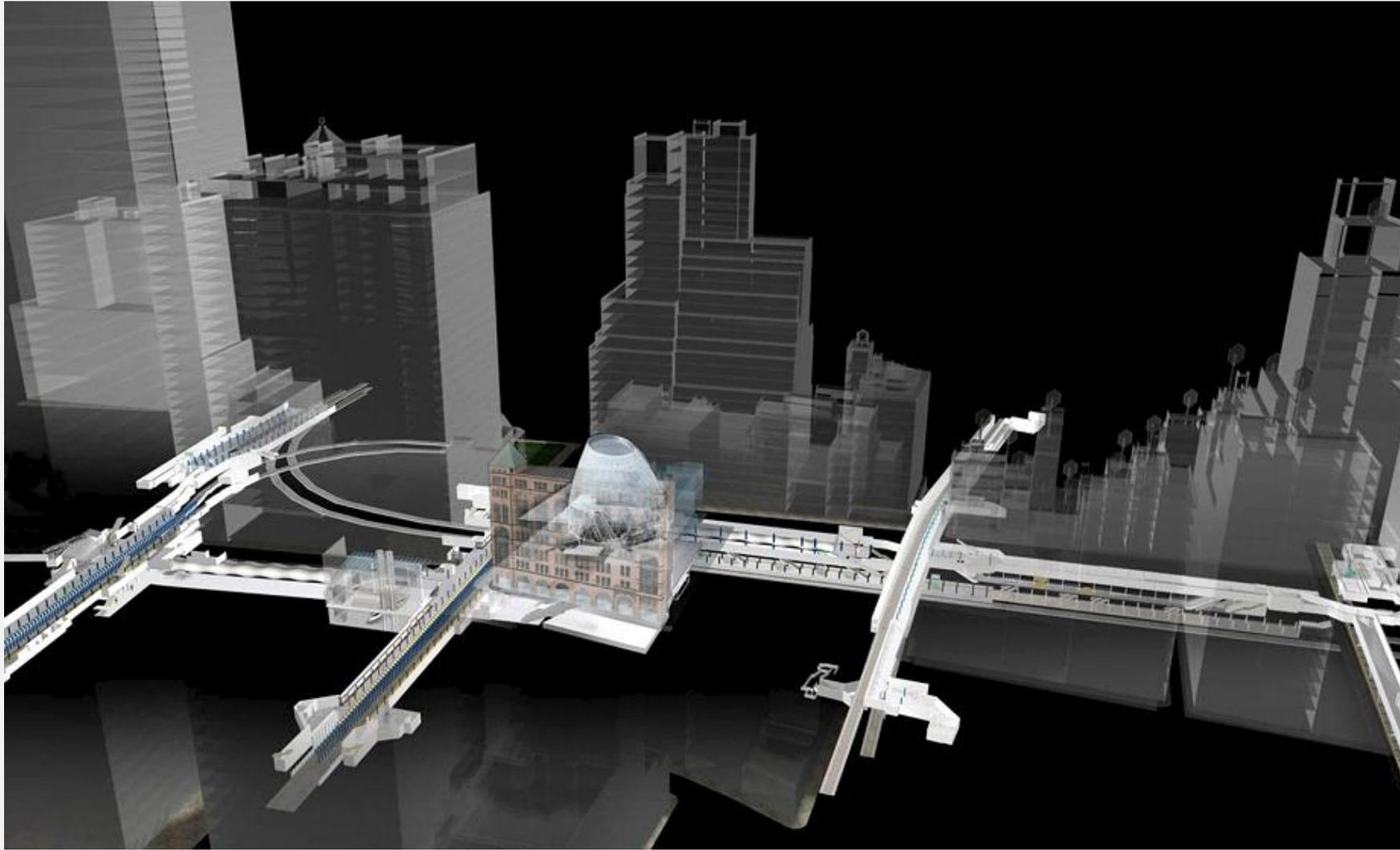
Transit Response to the Master Plan

Vincent Chang, FAIA





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June 21-23, New York City



62%

of RESIDENTS are between age 18-44



Home to more YOUNG professionals than Greenpoint, the East Village and Downtown Brooklyn

60,000

PEOPLE now live downtown

nearly TRIPLED since 2000



Powered by \$30 billion in government & private INVESTMENT



600+ Tech Companies

and MEDIA Groups have moved in next to long-established Wall Street firms



Apple Inc.
NASDAQ: AAPL

173.98 USD -1.26 (0.72%) +
Mar 21, 11:47 AM EDT



June 2007
1st iPhone
Release



16.8 Million VISITORS in 2016

+ 5.1 million in four years

4th LARGEST Business District

In the United States

After Midtown Manhattan, the Chicago Loop and Washington D.C.



15.9 Million square feet

of office space CONVERTED to residential or hotel use between 1994 and 2014

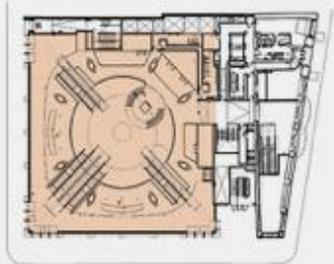
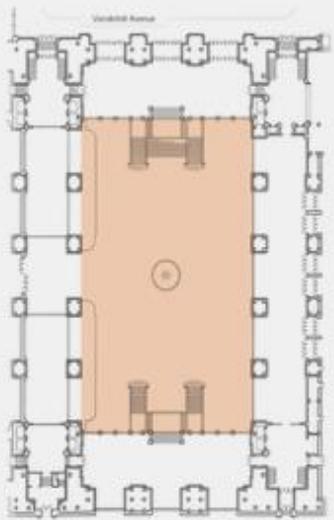
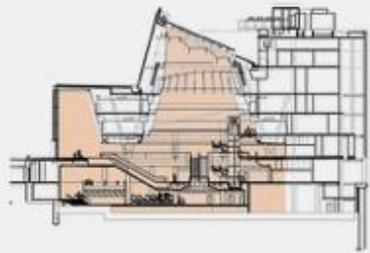
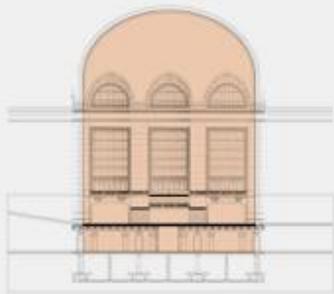


29 Hotels

in the neighborhood

only SIX before 9/11

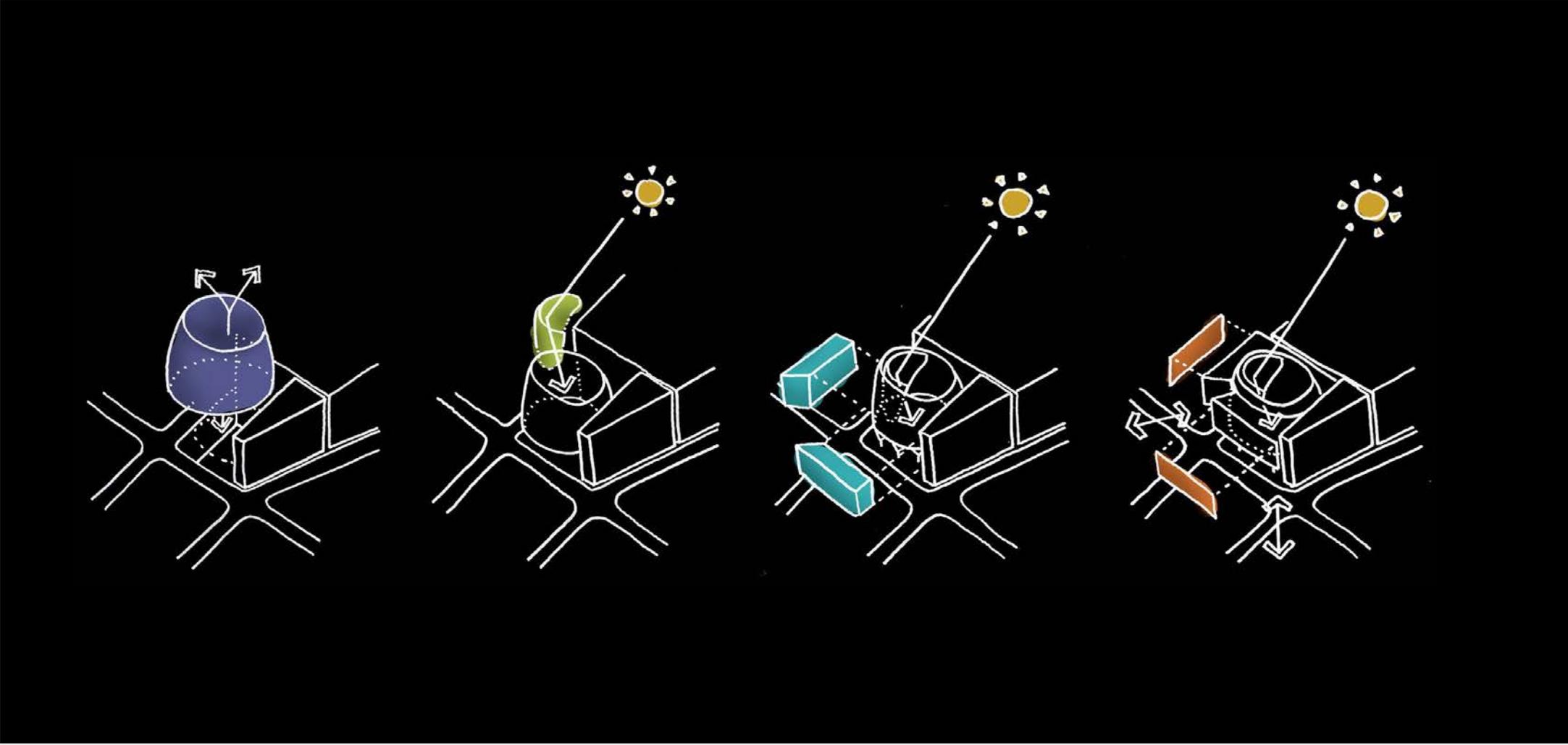
Lower Manhattan

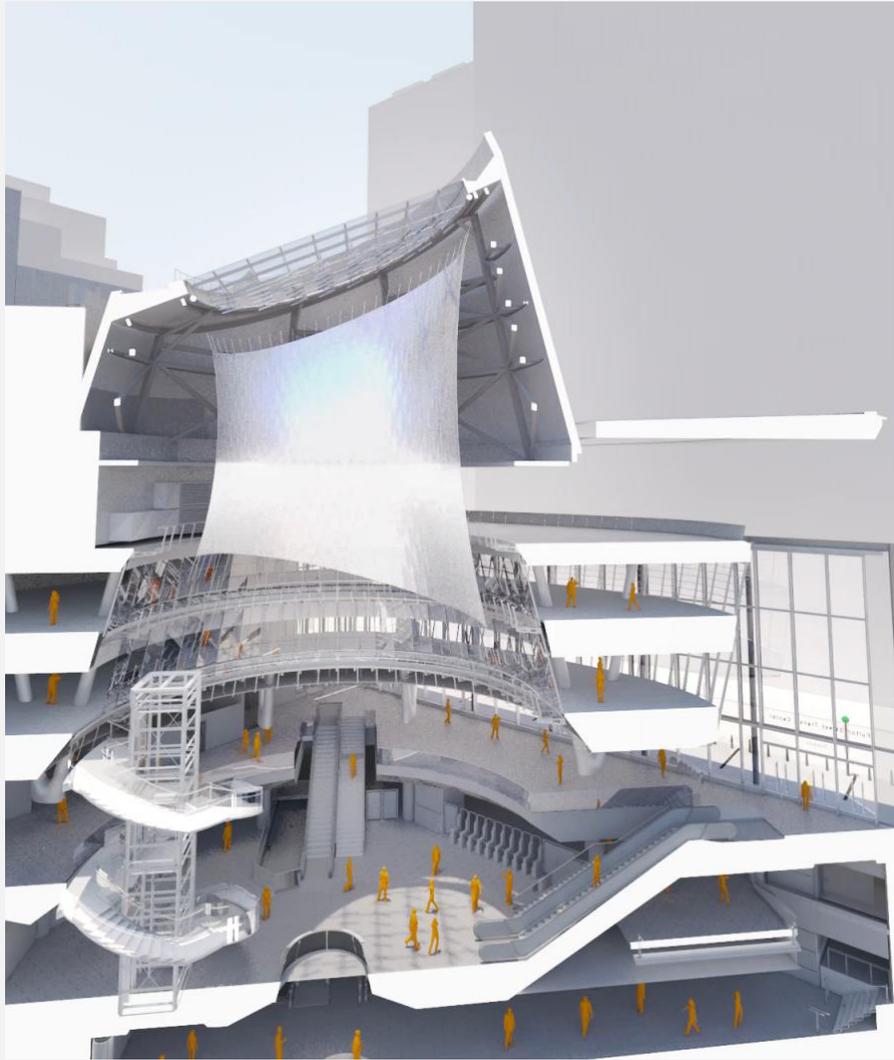




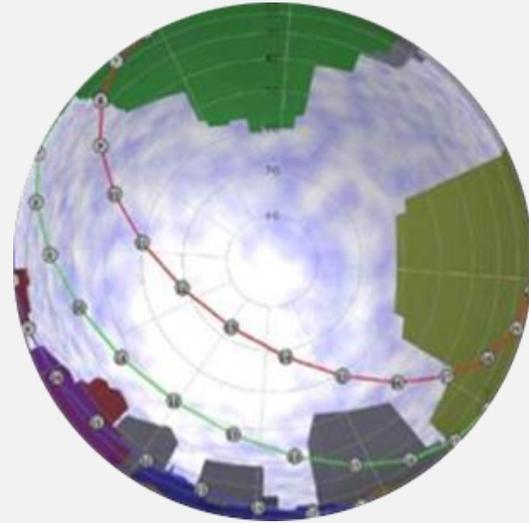
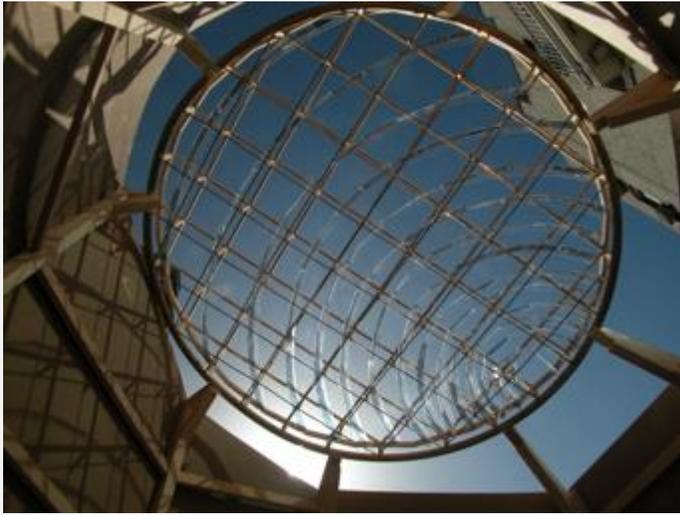


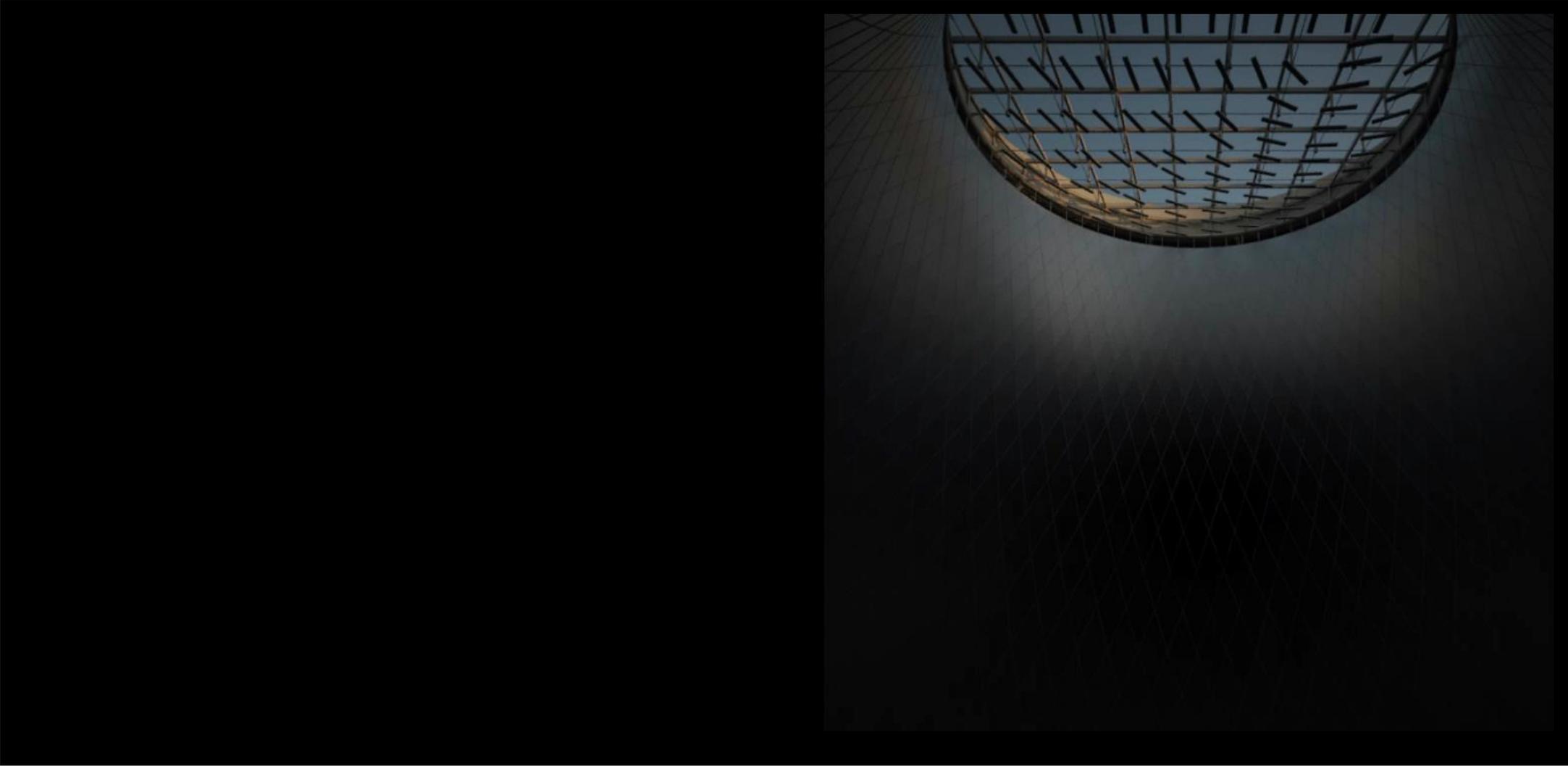
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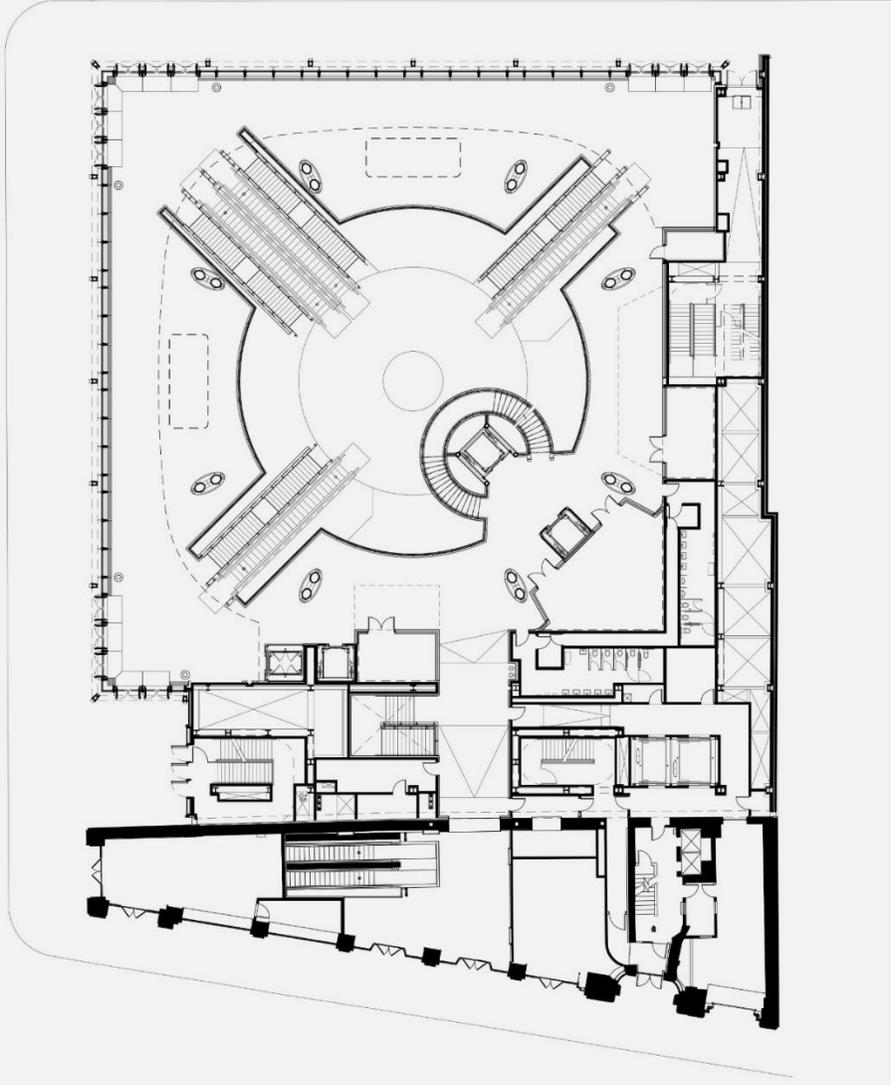


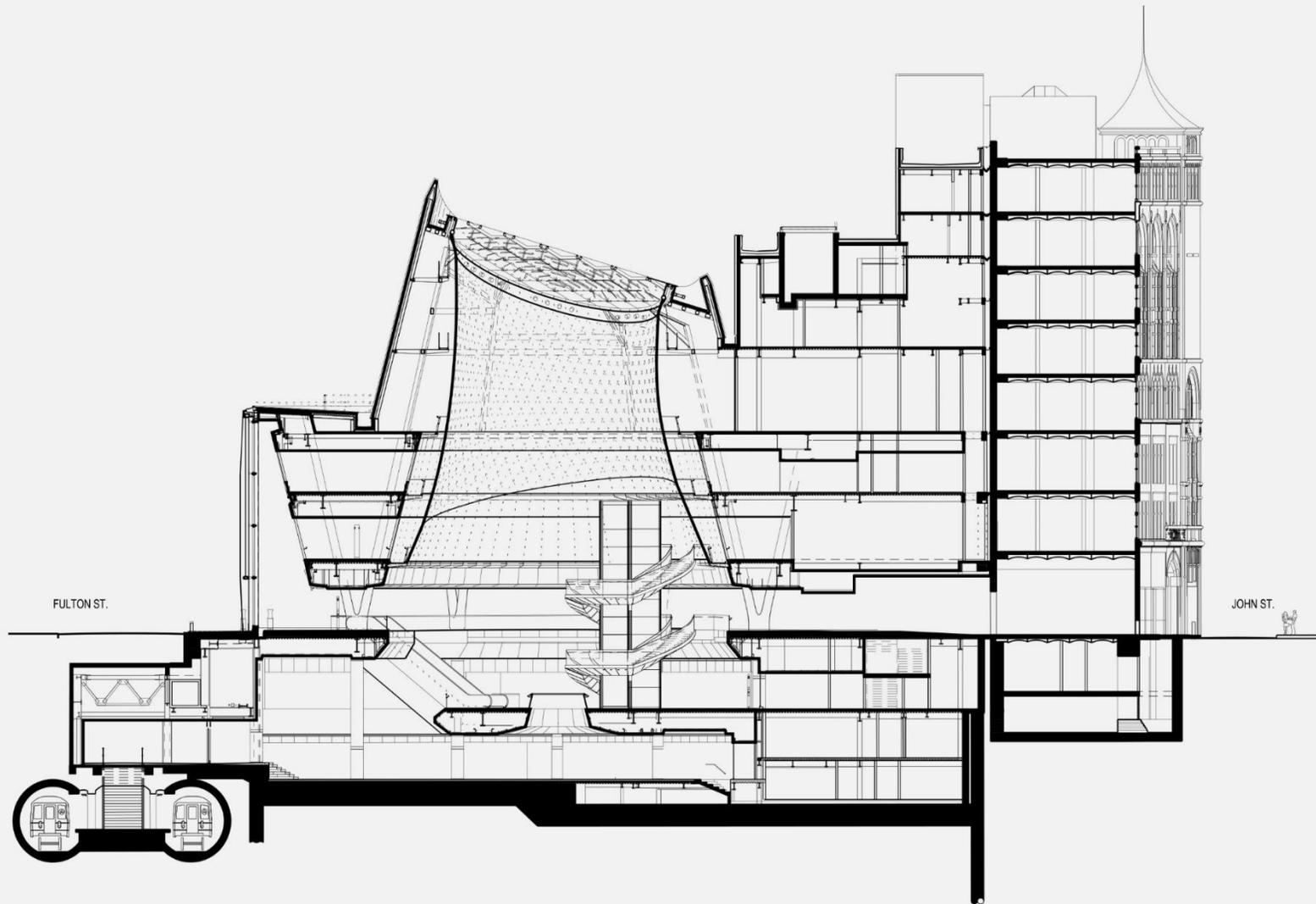


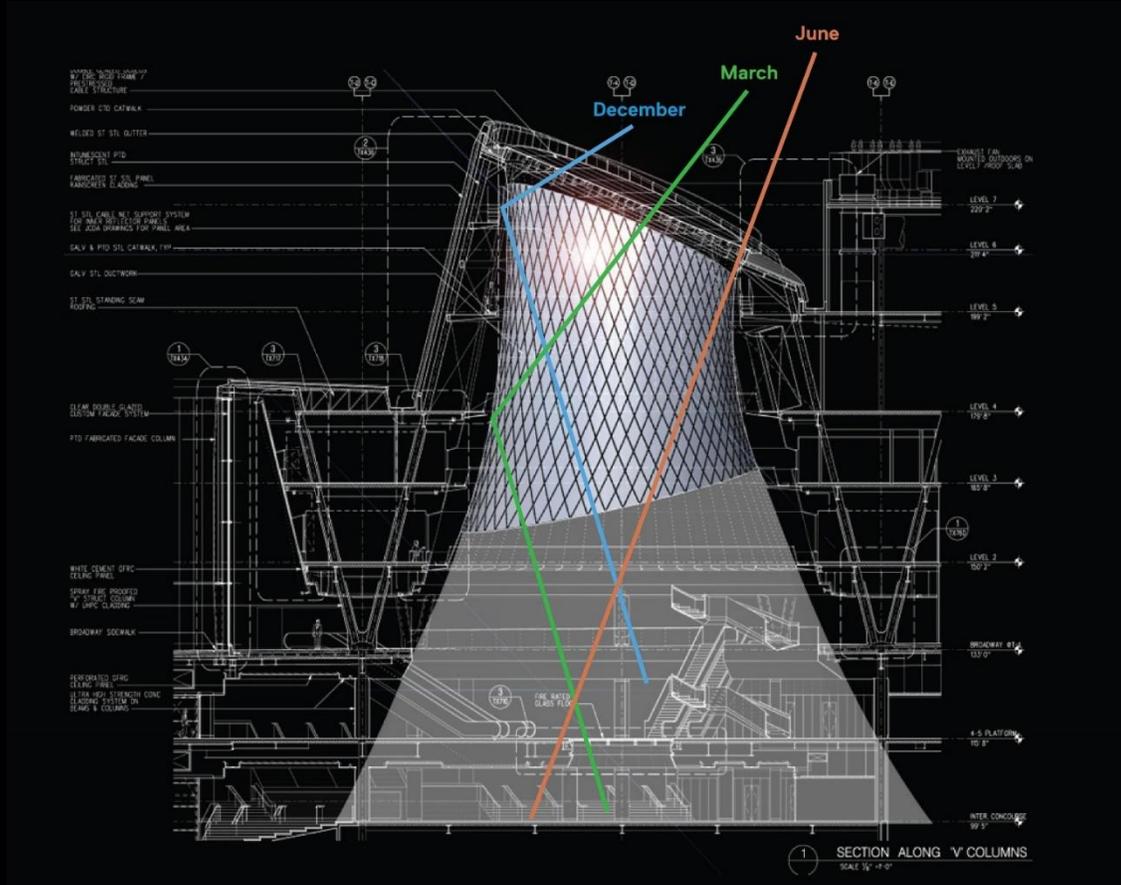
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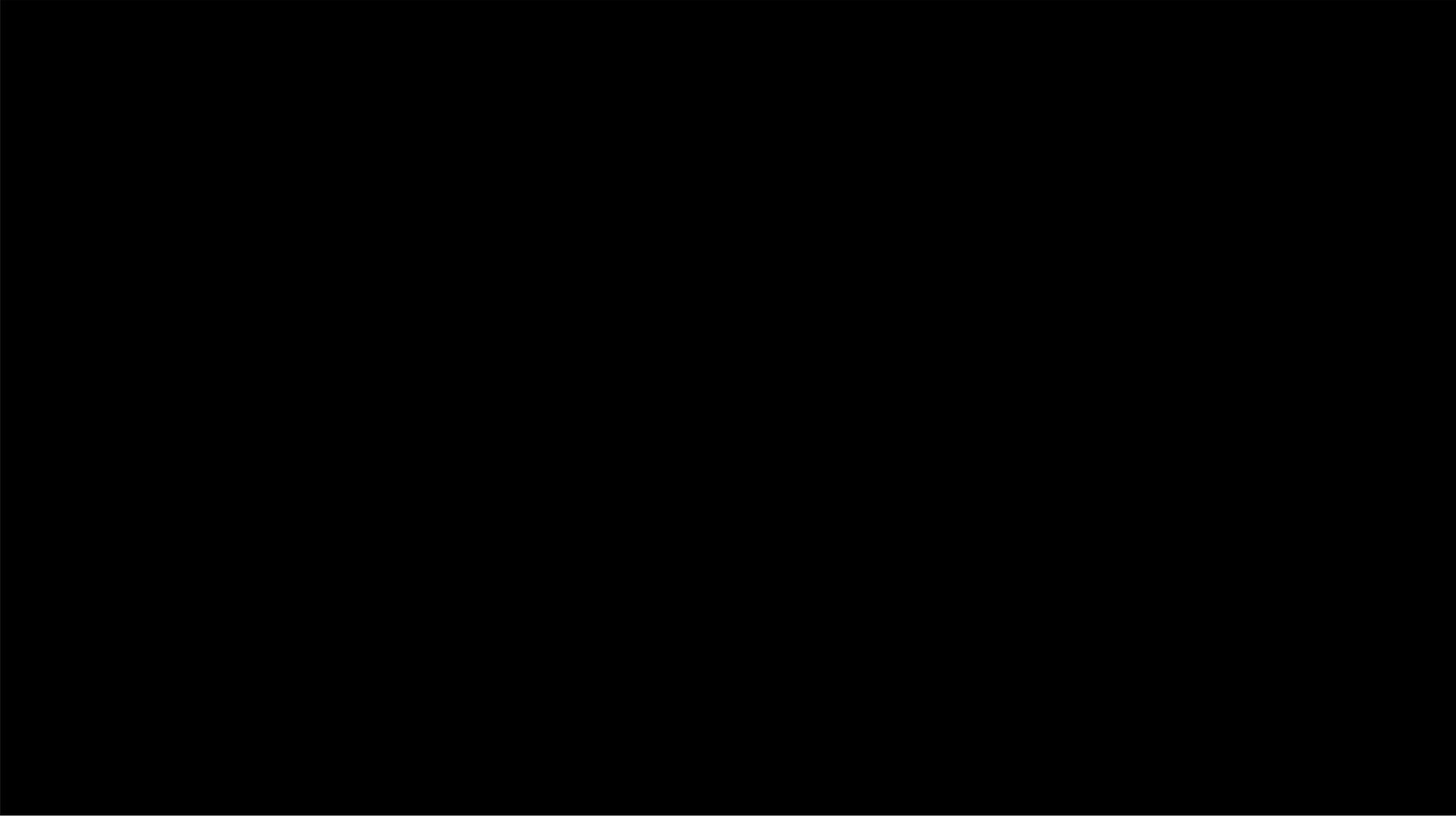


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World Financial Center
Brookfield Place

Commercial Response to the Master Plan

Raphael Pelli, FAIA



~2000



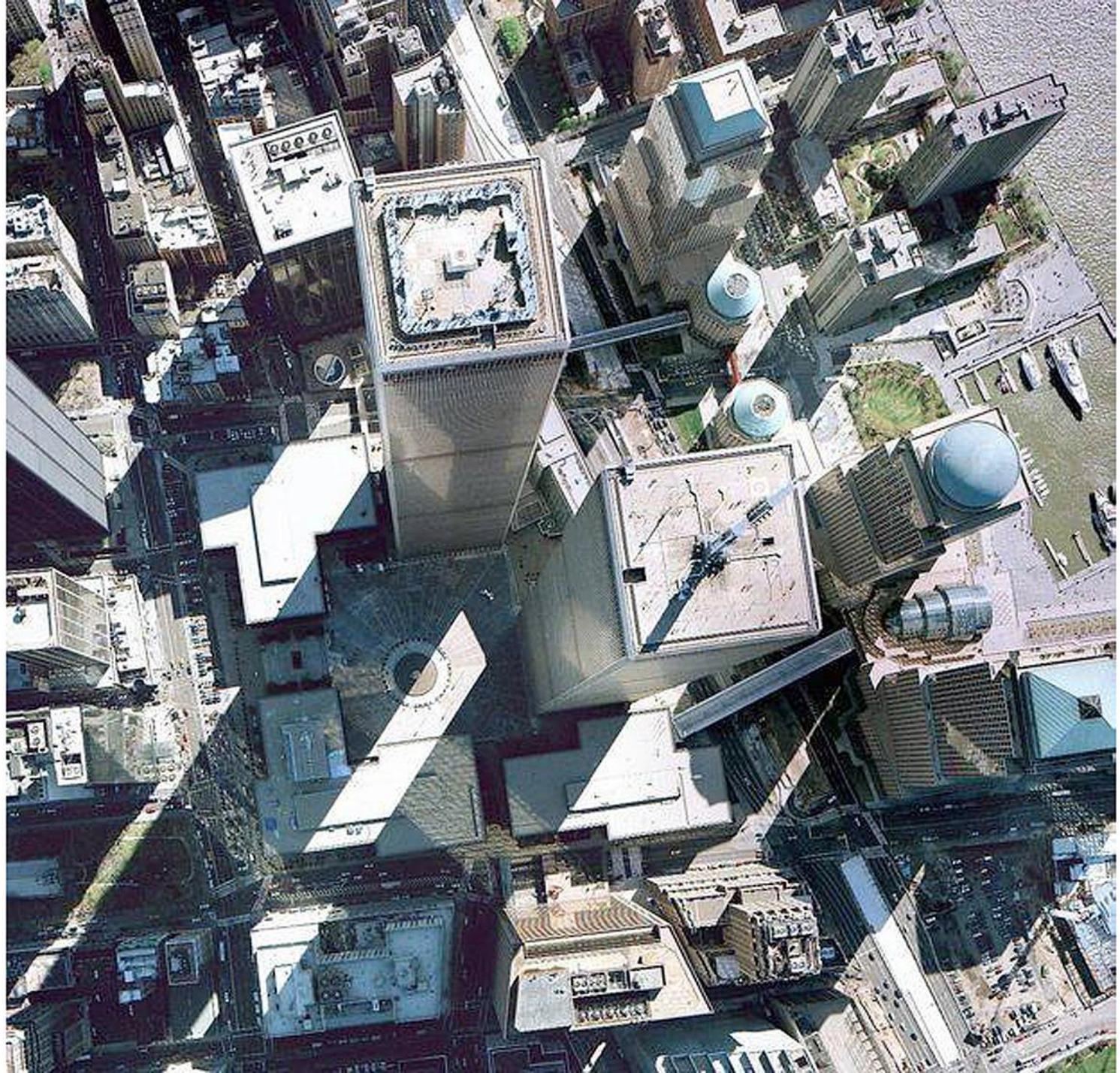
[wikipedia.org](https://www.wikipedia.org)



~2017

streeteasy.com











HUDSON RIVER

BROOKFIELD PLACE

MARKET PLACE

LIBERTY BRIDGE

250 VESEY ST

COURTYARD

VESEY ST.

200 VESEY ST

PAVILION &
CONCOURSE

WINTER GARDEN

225 LIBERTY ST

9/11 MEMORIAL SITE

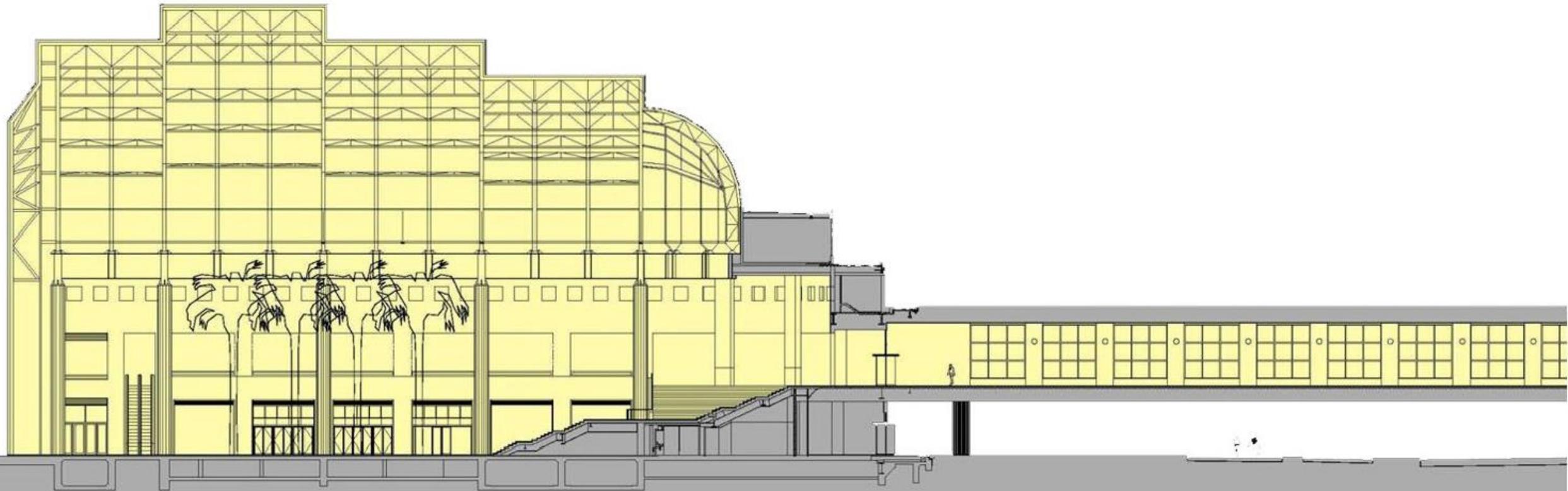
NORTH END AVE

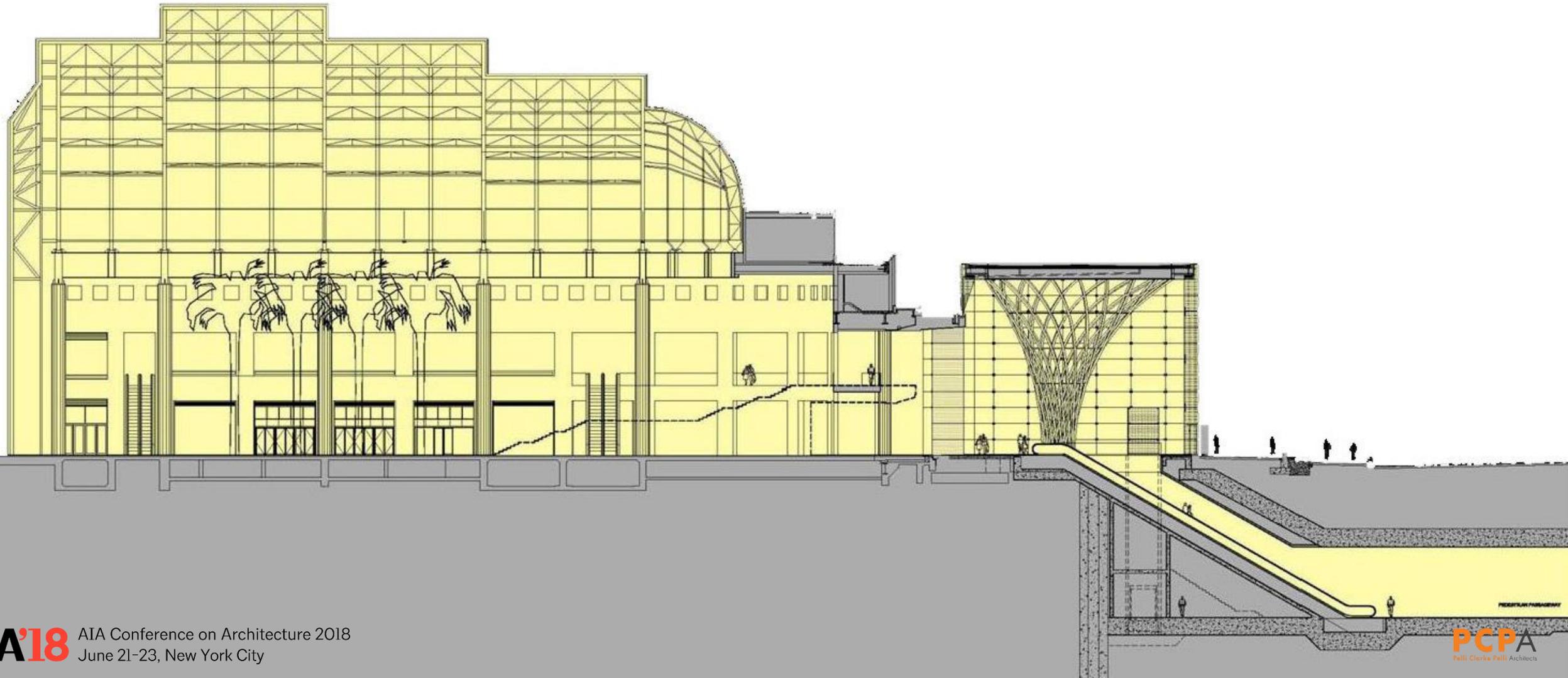
West St/ROUTE 9/A

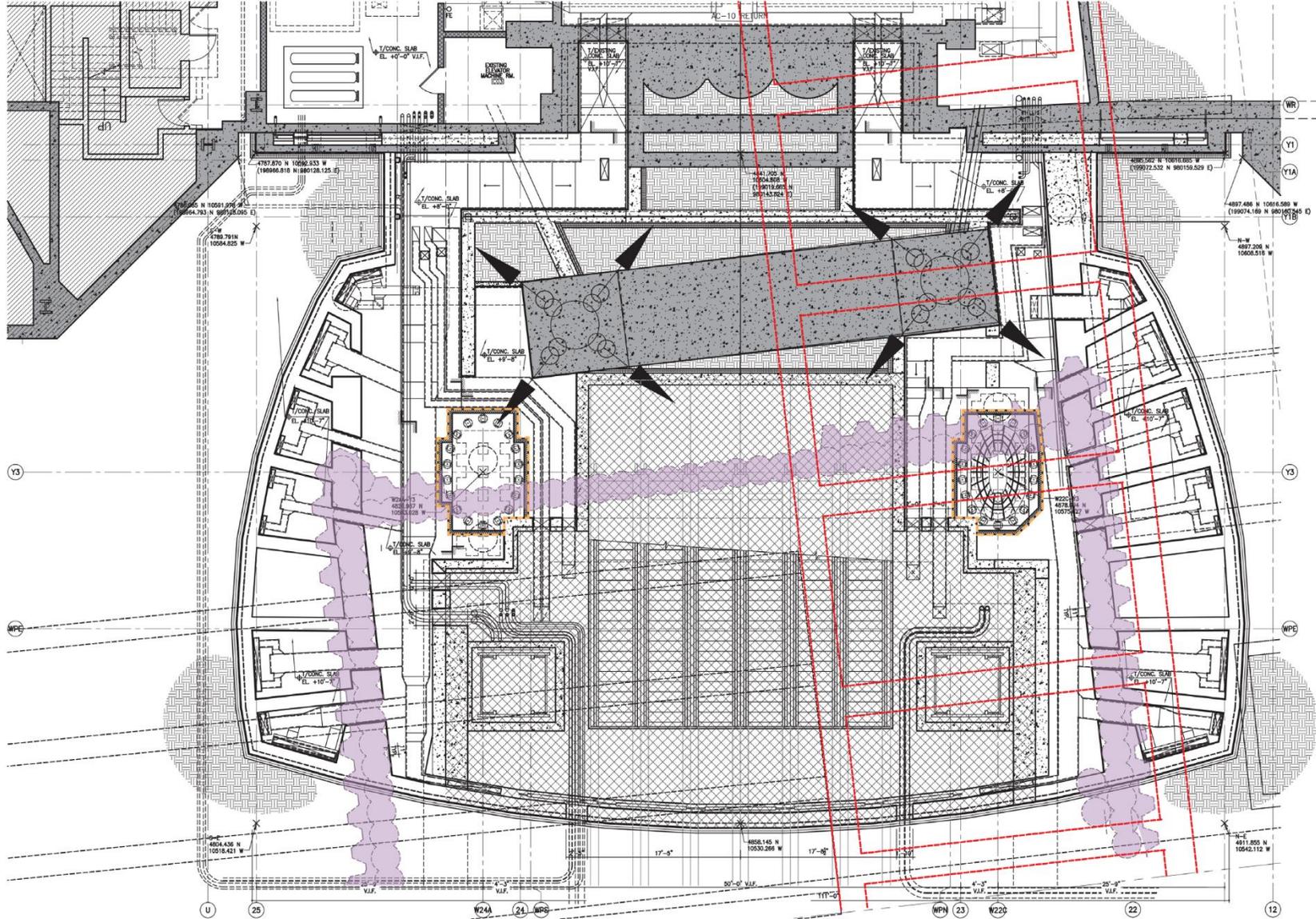
NORTH COVE

SOUTH END AVE

LIBERTY ST.







- - - - - PATH tube relieving platform structure
- - - - - Basket column foundation
- Secant wall













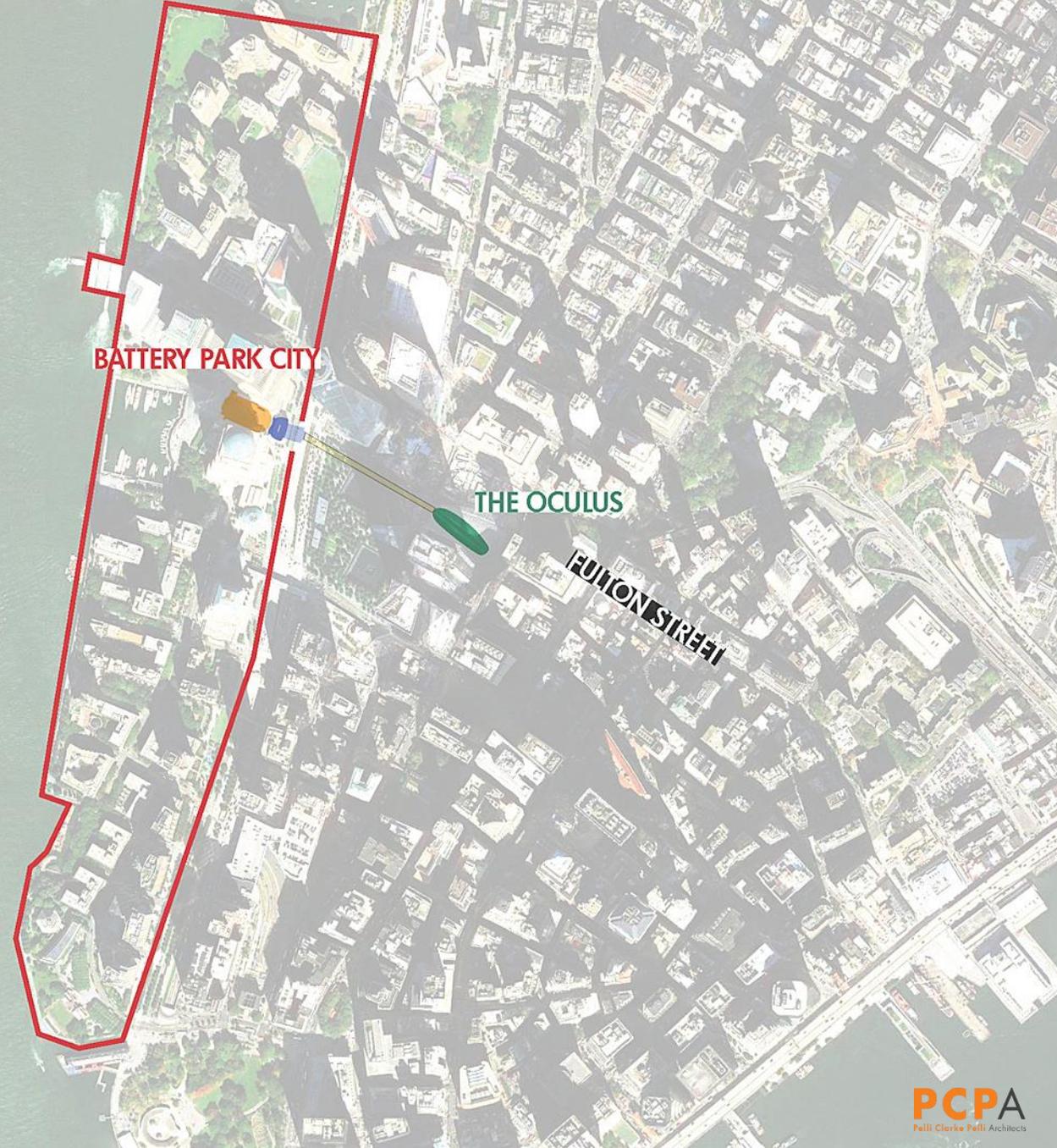
BATTERY PARK CITY

THE OCULUS

FULTON STREET

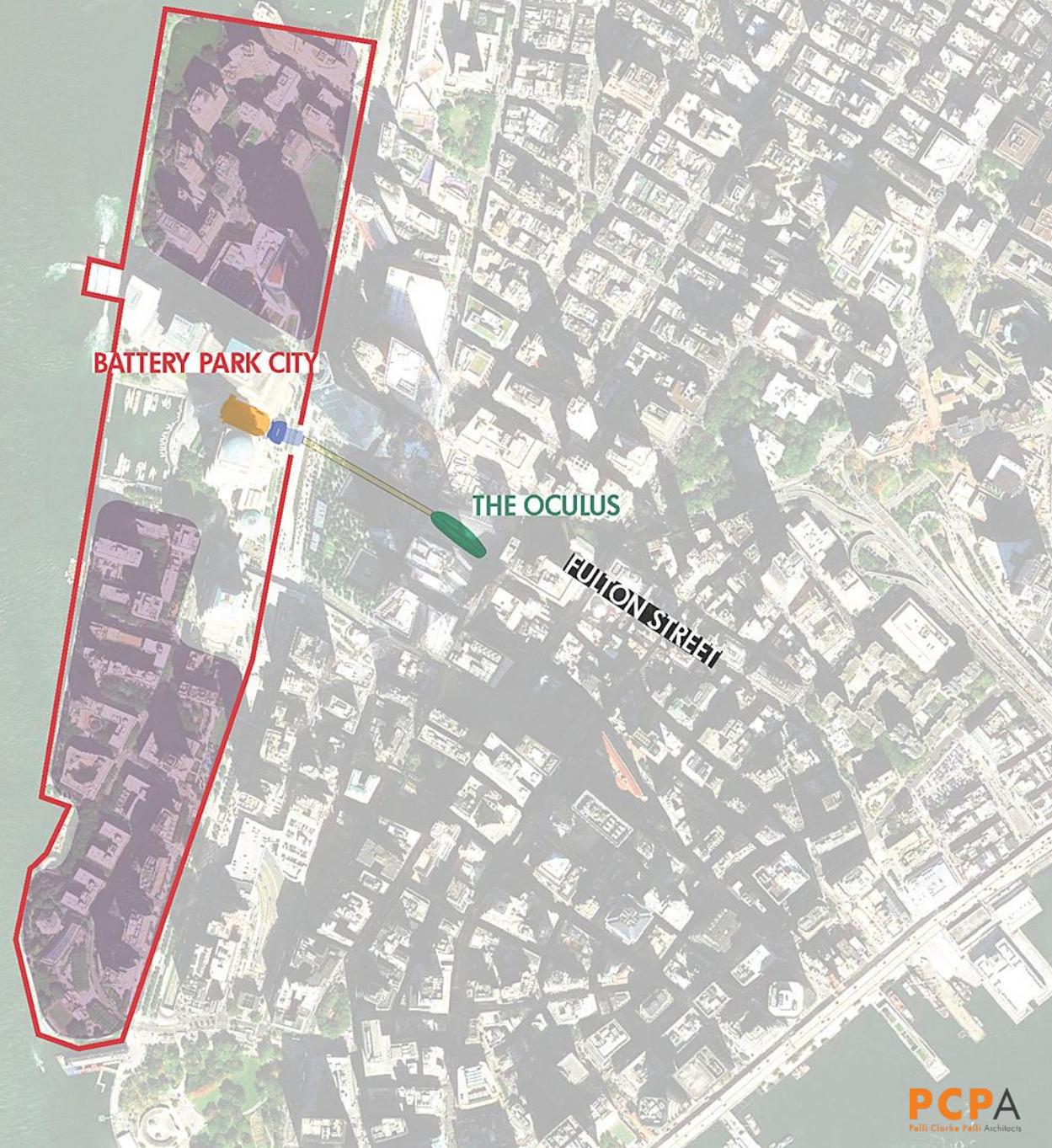
BROOKFIELD PLACE
Winter Garden, Pavilion & Concourse

>35,000
COMMUTERS/DAY



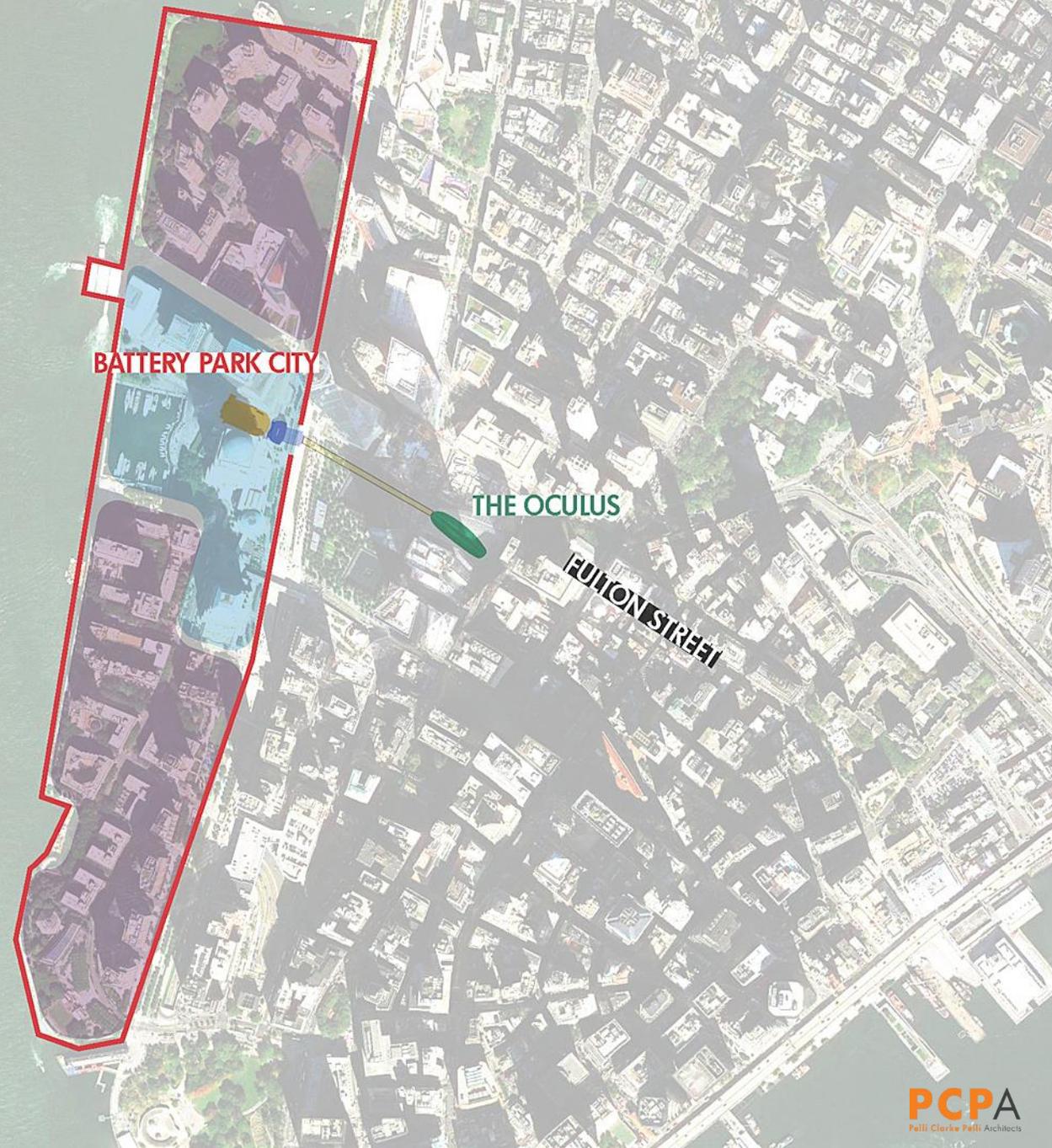
BATTERY PARK CITY
HOUSING

7.2 MILLION SQ. FT.



BATTERY PARK CITY
COMMERCIAL SPACE

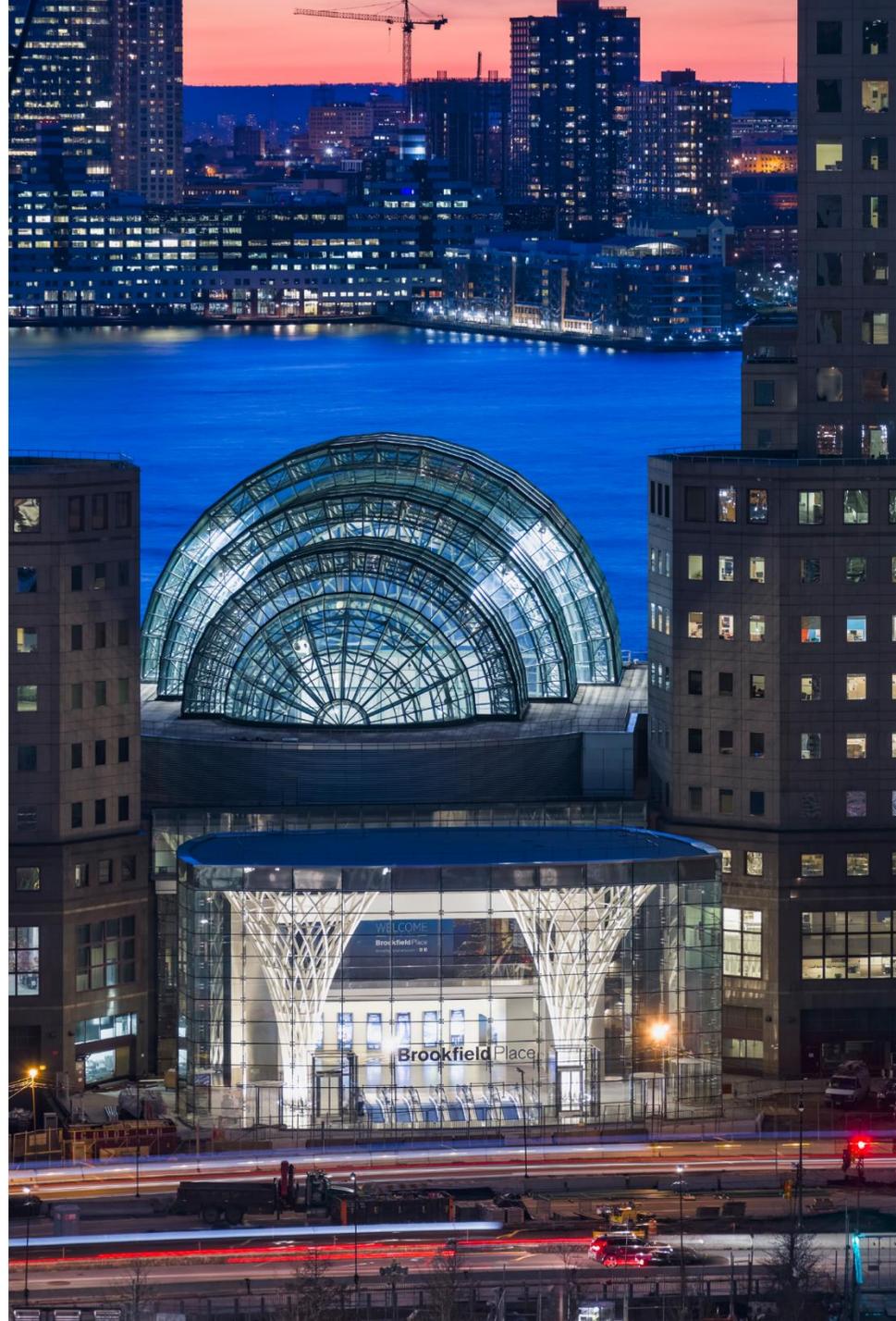
10 MILLION SQ. FT.



NY WATERWAY
BROOKFIELD PLACE/BATTERY PARK CITY TERMINAL

xx,000 DAILY
RIDERSHIP





Thank you!