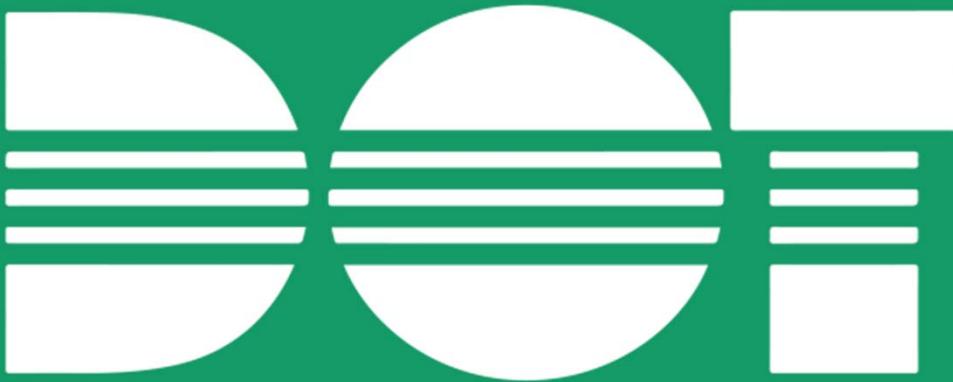


**NEW YORK CITY**

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**ARUP**

**WILLOUGHBY STREET  
PEDESTRIAN-PRIORITY PROJECT**

**STAKEHOLDERS MEETING**

August 7, 2014

# AGENDA AND MEETING PURPOSE

- 01 Introduction and Background**
- 02 Existing Conditions**
- 03 Pedestrian Priority and Shared Streets**
- 04 Project Objectives**
- 05 Next Steps**

# INTRODUCTION AND BACKGROUND

## ABOUT THE PROJECT

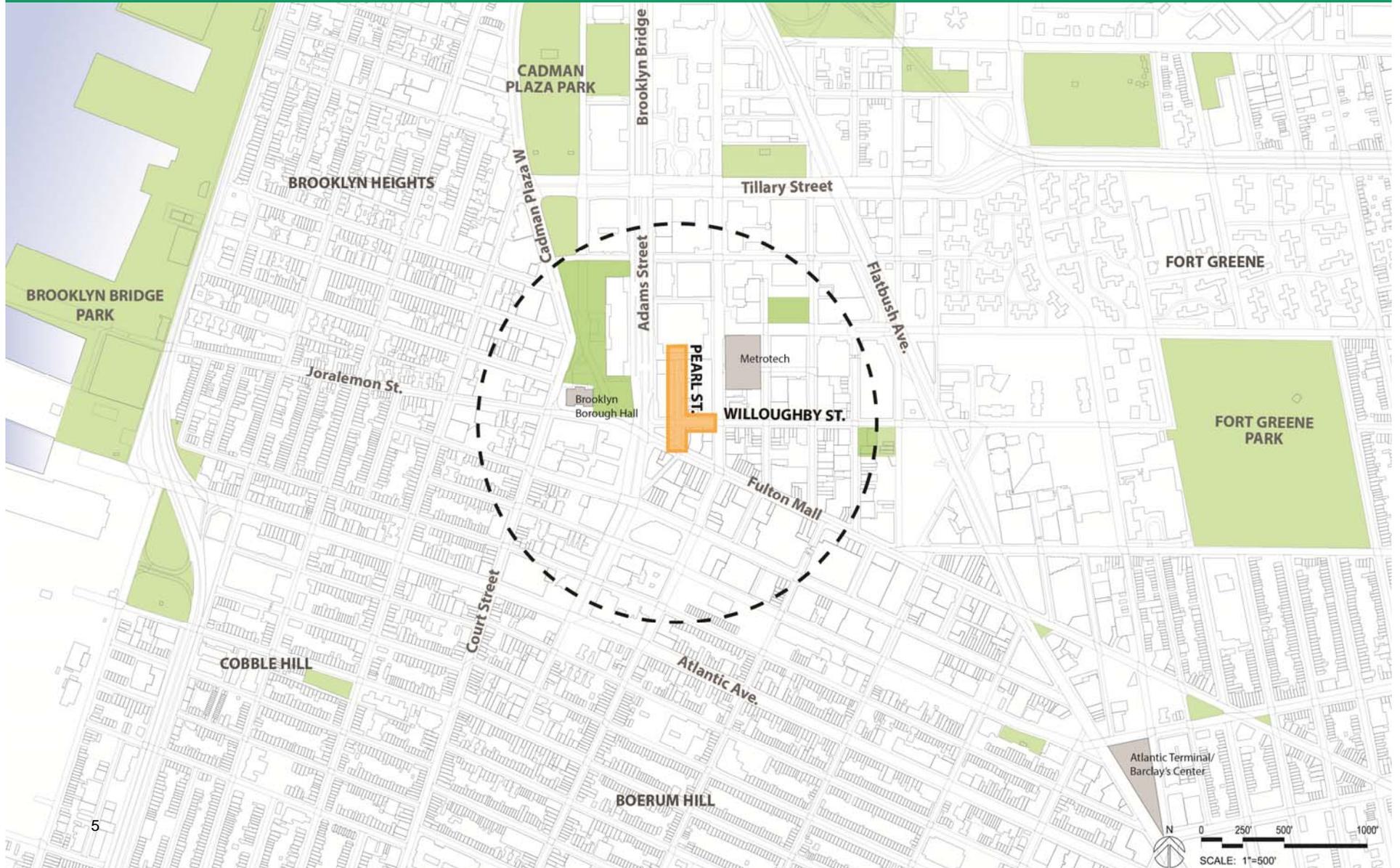
### BACKGROUND

- Study and conceptual design for Willoughby and Pearl Streets
- Led by NYC DOT in collaboration with Arup, EE&K, ATI and Naik consultant teams
- 6-month project: June-November 2014
- Opportunities for stakeholder and public collaboration
- 2008 study findings by Gehl Architects:
  - Active pedestrian area
  - Pedestrian-priority or “Shared Street” concept recommended
- Leverages success of Willoughby Plaza



# ABOUT THE PROJECT

## PROJECT SITE



# LOCATION & CONTEXT

## SURROUNDING AREA

- Historic residential districts
- High-rise residential, areas recently re-zoned
- Marriot Hotel, and several newly constructed hotels
- MetroTech office and educational center
- Downtown Court Street corridor



# LOCATION & CONTEXT

## ADJACENT USES

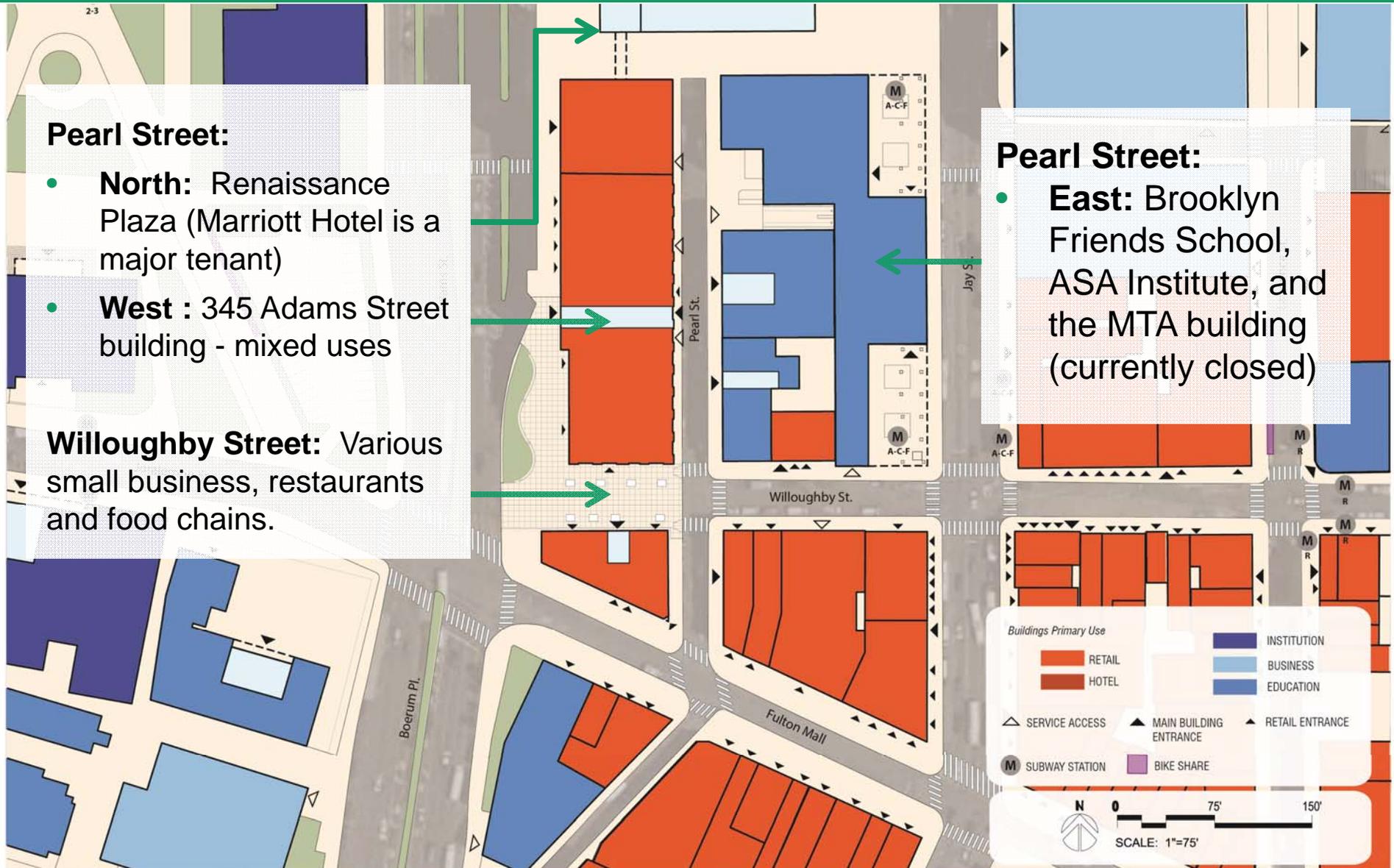
### Pearl Street:

- **North:** Renaissance Plaza (Marriott Hotel is a major tenant)
- **West :** 345 Adams Street building - mixed uses

**Willoughby Street:** Various small business, restaurants and food chains.

### Pearl Street:

- **East:** Brooklyn Friends School, ASA Institute, and the MTA building (currently closed)

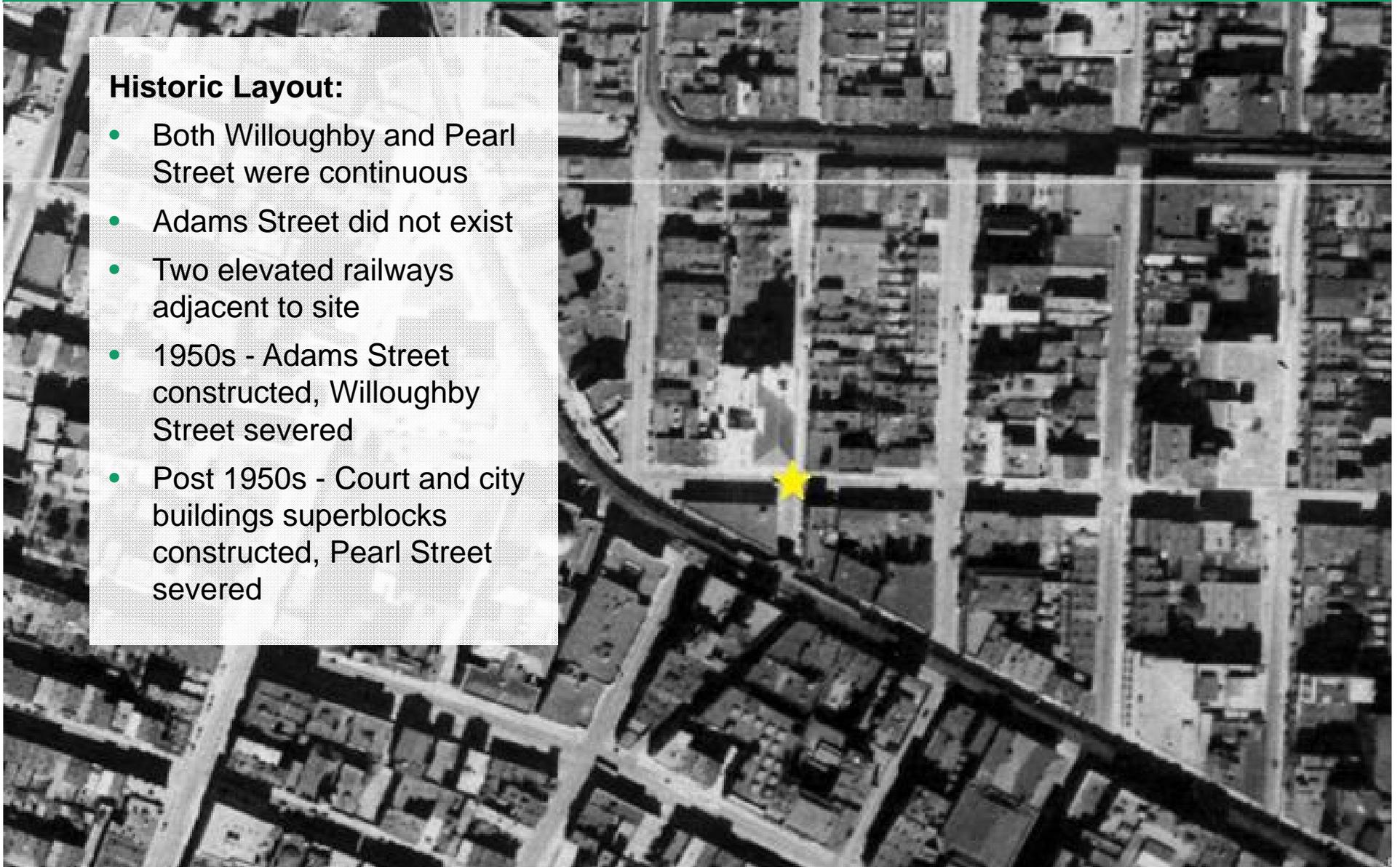


# LOCATION & CONTEXT

## HISTORY

### Historic Layout:

- Both Willoughby and Pearl Street were continuous
- Adams Street did not exist
- Two elevated railways adjacent to site
- 1950s - Adams Street constructed, Willoughby Street severed
- Post 1950s - Court and city buildings superblocks constructed, Pearl Street severed



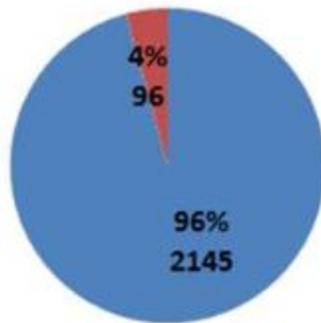
# EXISTING CONDITIONS

## MOBILITY

# PEDESTRIANS VS. VEHICLES

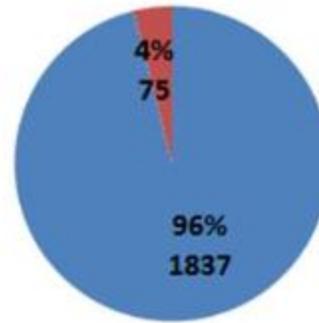
## AM PEAK HOUR

Willoughby St and Pearl St



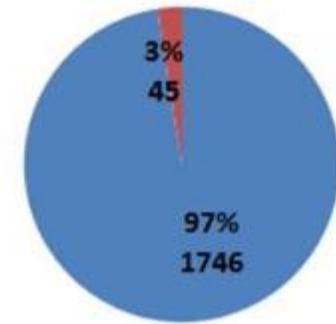
## MIDDAY PEAK HOUR

Willoughby St and Pearl St

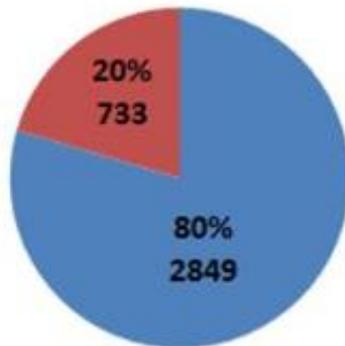


## PM PEAK HOUR

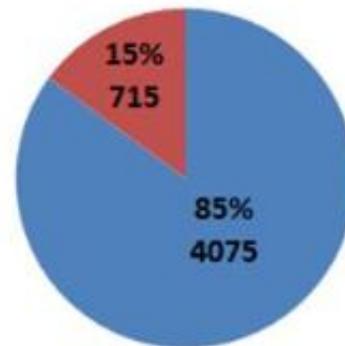
Willoughby St and Pearl St



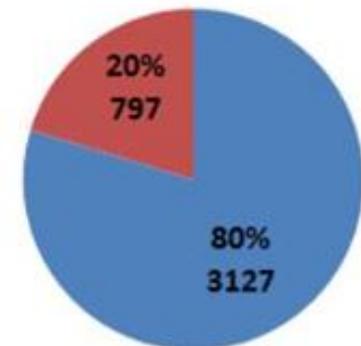
Willoughby St and Jay St



Willoughby St and Jay St



Willoughby St and Jay St

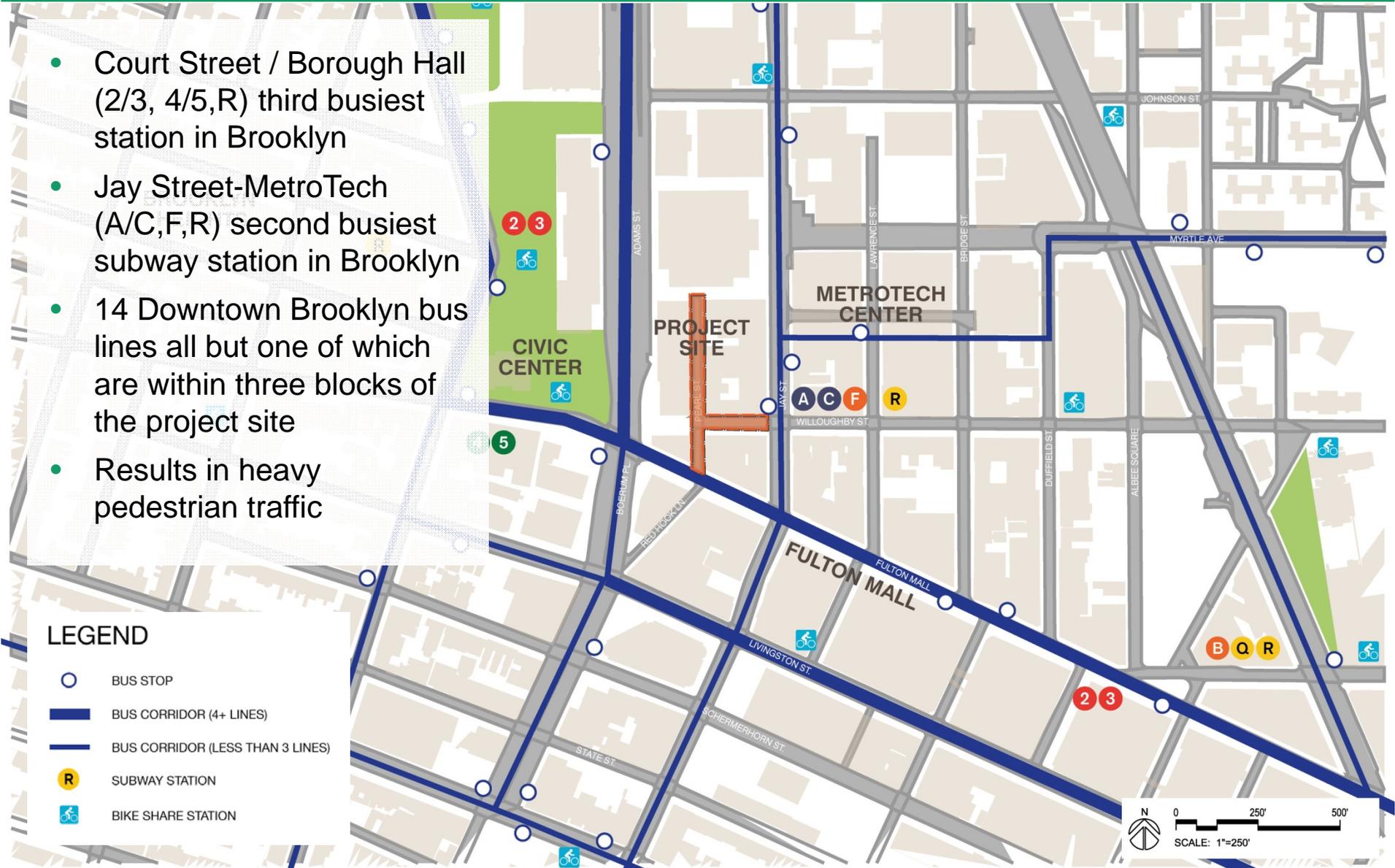


- High pedestrian volumes relative to vehicles at all times

# EXCELLENT TRANSIT ACCESS

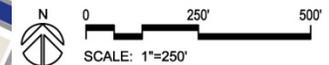
## SUBWAY AND BUS CONNECTIONS

- Court Street / Borough Hall (2/3, 4/5,R) third busiest station in Brooklyn
- Jay Street-MetroTech (A/C,F,R) second busiest subway station in Brooklyn
- 14 Downtown Brooklyn bus lines all but one of which are within three blocks of the project site
- Results in heavy pedestrian traffic



### LEGEND

- BUS STOP
- BUS CORRIDOR (4+ LINES)
- BUS CORRIDOR (LESS THAN 3 LINES)
- R SUBWAY STATION
- 🚲 BIKE SHARE STATION

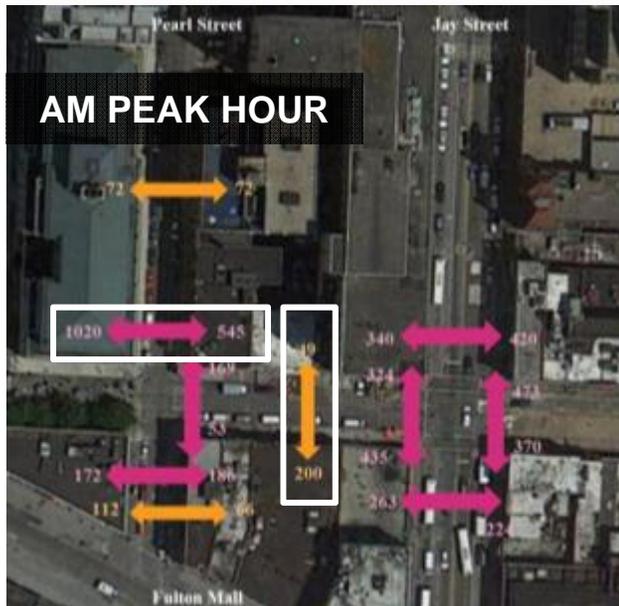


## PEDESTRIAN CONDITIONS

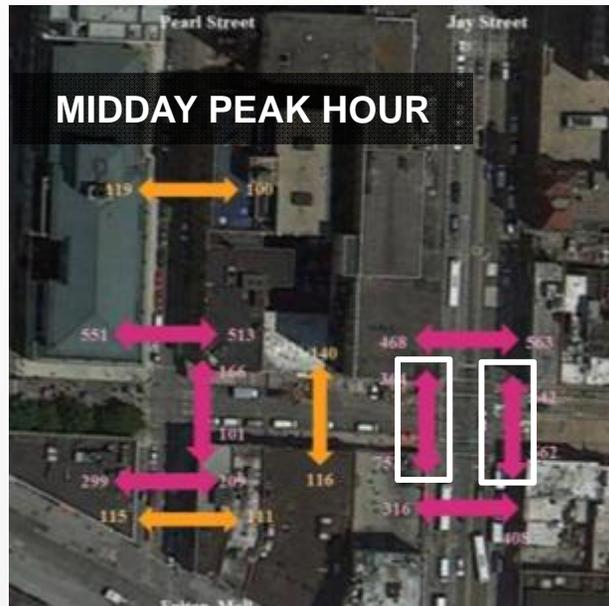
- Infrastructure generally meets demand
  - Pedestrians able to walk freely through site
  - However, this reflects current level of design
- Pedestrians walk in street
- Pearl Street appears to be a dead end to pedestrians
- Poor wayfinding
- Crash data indicates pedestrian safety not a major issue



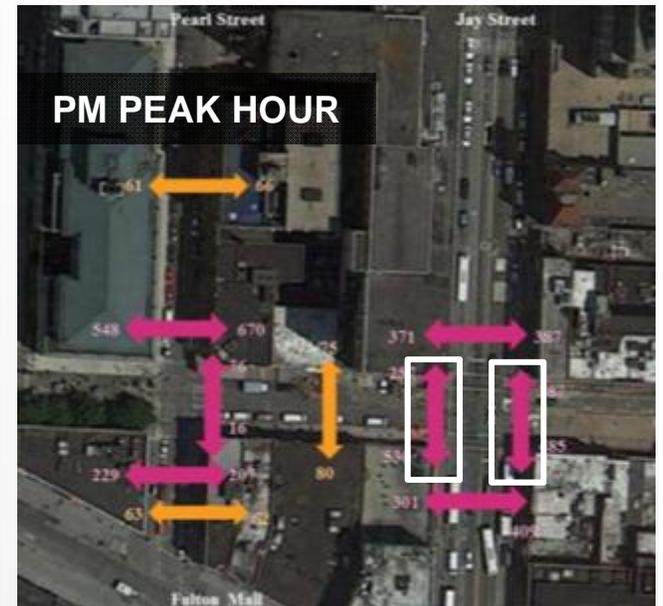
# PEDESTRIAN VOLUMES



East to Borough Hall Station on northern side of Willoughby Street



South to Fulton Mall along Jay Street



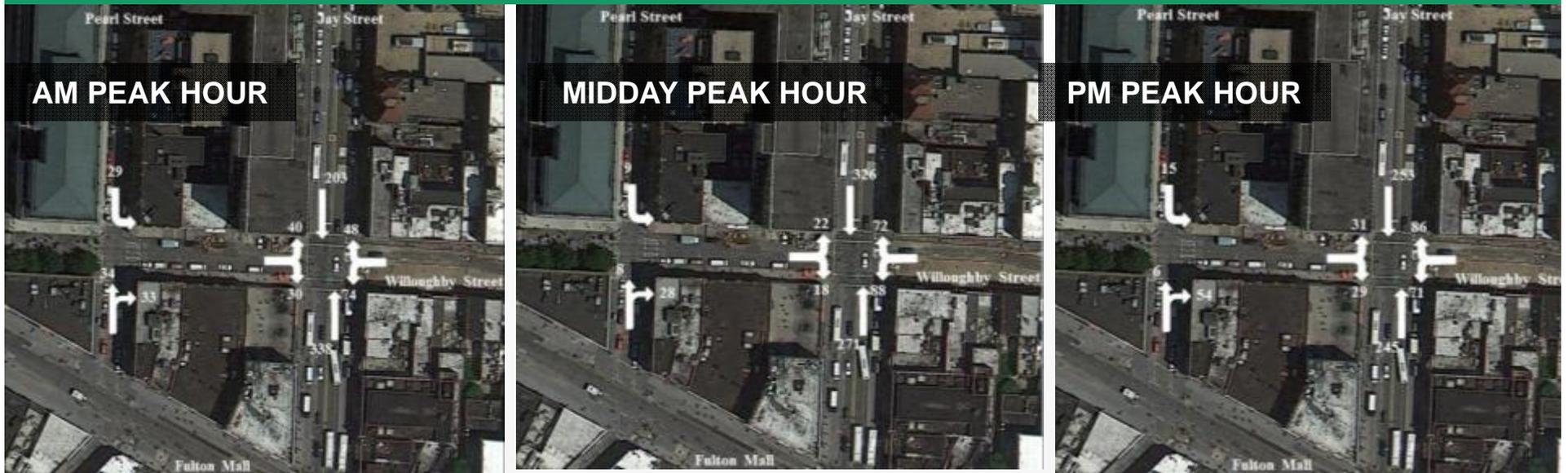
South to Fulton Mall along Jay Street

## VEHICULAR CONDITIONS

- Low traffic volumes
- Street layout and Willoughby Plaza reduces vehicular connections
- Only access from the south via Red Hook Lane onto Pearl Street
- Northern portion of Pearl Street is a dead-end, requires three-point turn to exit via Willoughby Street
- Few crashes

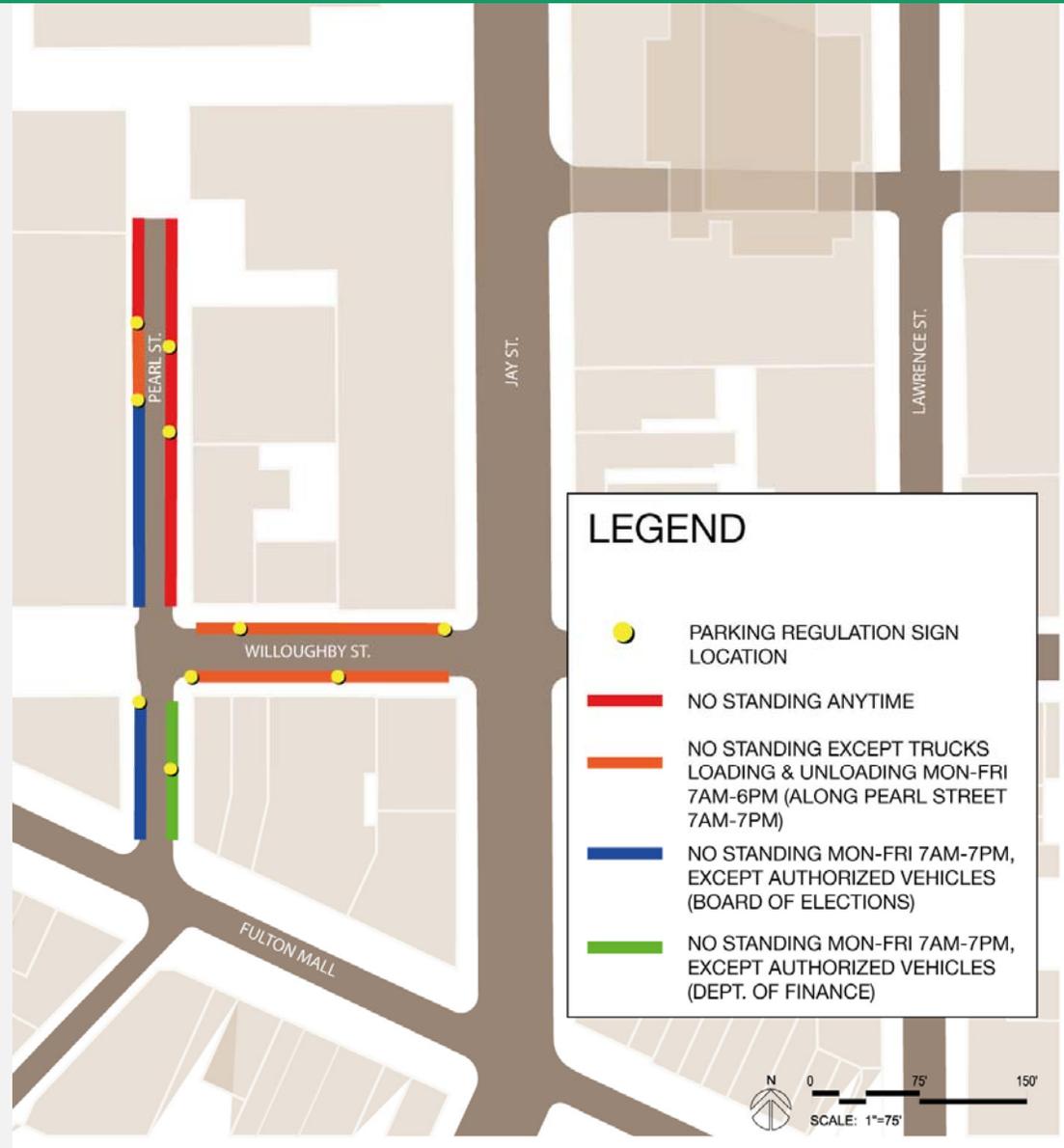


## VEHICULAR VOLUMES AND INTERSECTION LEVEL OF SERVICE



- Level of Service (LOS) results are all “C” or better
- Traffic conditions in the study area are within acceptable operating standards

# ON-STREET PARKING



# LOADING AND UNLOADING PATTERNS

PICK-UP/DROP-OFF



OFFICE & HOTEL USES

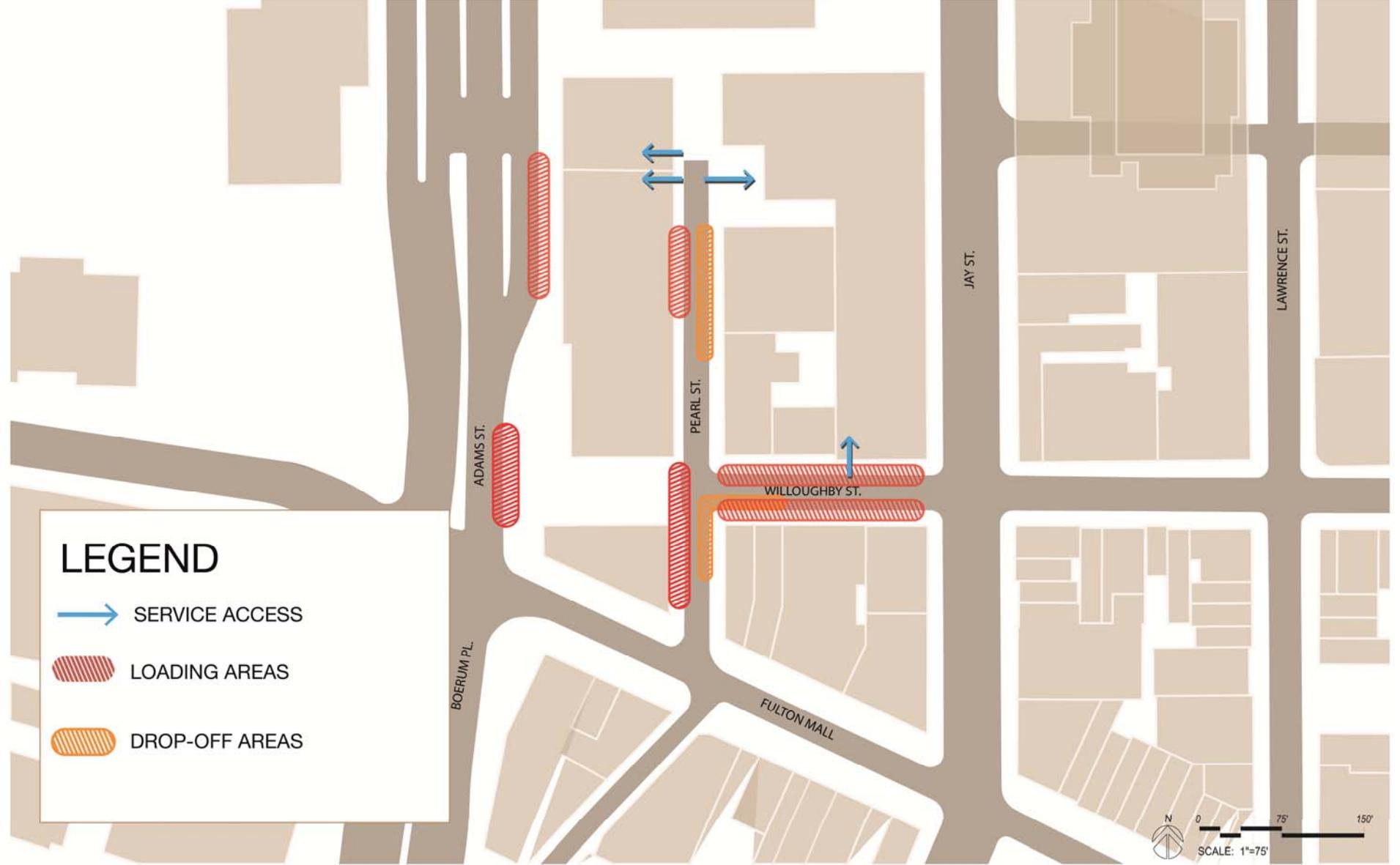


RETAIL & RESTAURANT USES



- Brooklyn Friends School: some parents use vehicles for pick-up /drop-off
- Peak times:
  - 7:30-8:30 AM
  - 2:45-3:30 PM
- Service entrances on northern end of Pearl Street, including Marriott Hotel and 370 Jay Street
- Trucks park on Pearl and Willoughby Streets and hand-cart goods to customers
- Loading zone on Adams Street

# LOADING AND UNLOADING PATTERNS



## CYCLING CONDITIONS

- Significant levels of cycling through-traffic not observed
  - Pearl Street is a dead end
  - Willoughby Plaza restricts connectivity
  - High pedestrian volumes
- Dedicated bike paths adjacent to site on Adams and Jay Streets
- Stakeholders identified demand for bike parking, suggesting many local building users use bicycles to access the area
- 2 CitiBike docking stations near project site



# EXISTING CONDITIONS

## CHARACTER AND ENVIRONMENT

## GENERAL CHARACTER AND STREET APPEARANCE

- Physical character somewhat degraded
- Underutilized retail frontage
- Sidewalk and visual clutter
- Availability of sunlight is minimal on Pearl Street
- Some noise pollution, though not significant



# STREET AMENITIES



**PEDESTRIAN AMENITIES**

Needs more pedestrian amenities such as seating, signage, and lighting.



**BIKE AMENITIES**

Lack of bike parking forces bicyclists to lock bikes on scaffolding and street signs



**LANDSCAPING**

Landscaping limited to planters in front of Brooklyn Friends School

# GREEN CORRIDOR CONNECTING TO OPEN SPACES

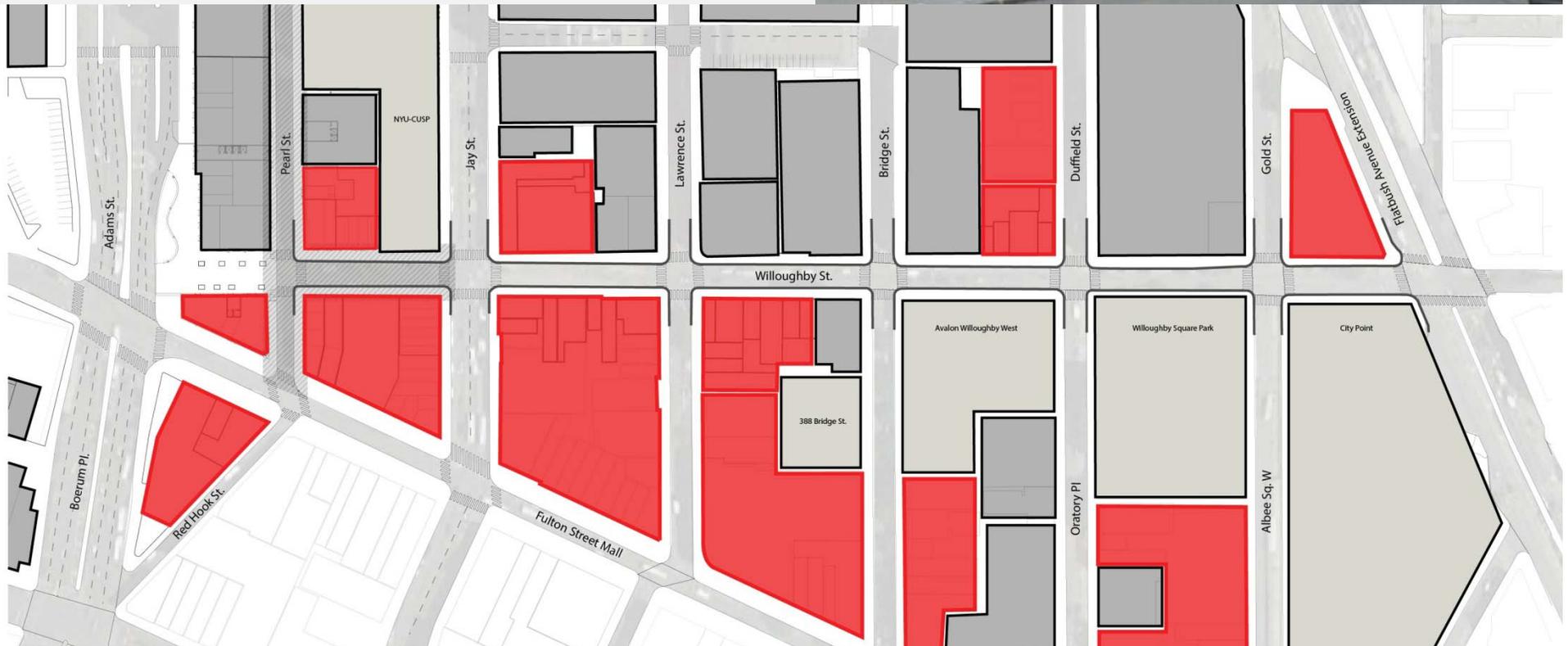


# VIEW CORRIDORS



# ANTICIPATING FUTURE NEEDS

- Area in transition
- Residential, worker, retail customer population expected to grow
- 2004 Rezoning: Pearl Street and Red Hook Lane de-mapping initiated



# FEEDBACK + DISCUSSION

# PEDESTRIAN PRIORITY AND SHARED STREETS

- **WHAT ARE THEY?**
- **3 CASE STUDIES**

## SHARED STREETS

- Common space shared by:



**Pedestrians**

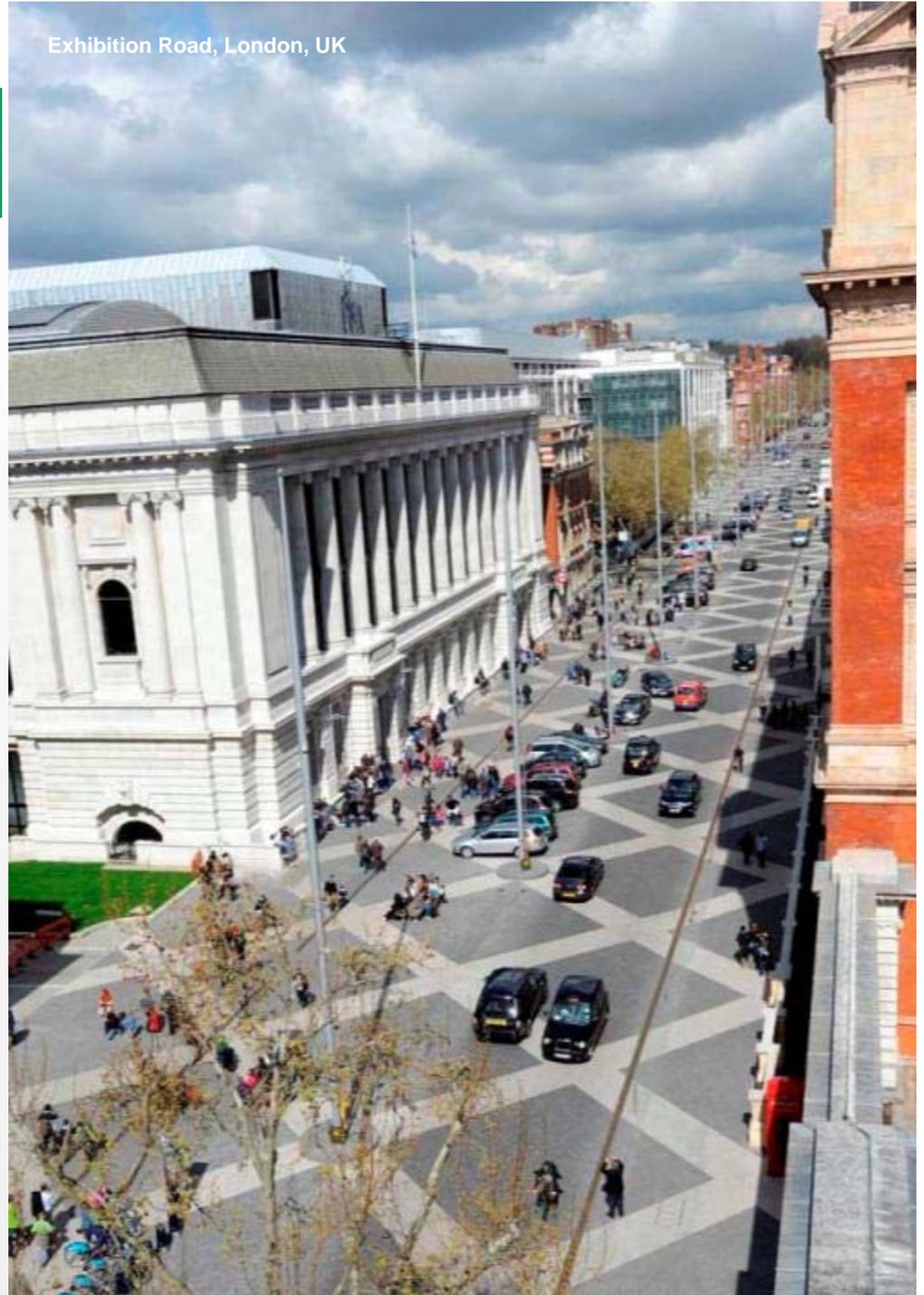


**Cyclists**



**Low-speed vehicles**

Exhibition Road, London, UK



## DESIGN FEATURES

- Remove segregation and specific regulations:



**Fewer Signs**



**Less Signals**



**Reduced markings**



**Flush Surfaces**



Winthrop Street, Cambridge, MA

## AMENITIES

- Elements to attract pedestrians and define space:



**Bollards**



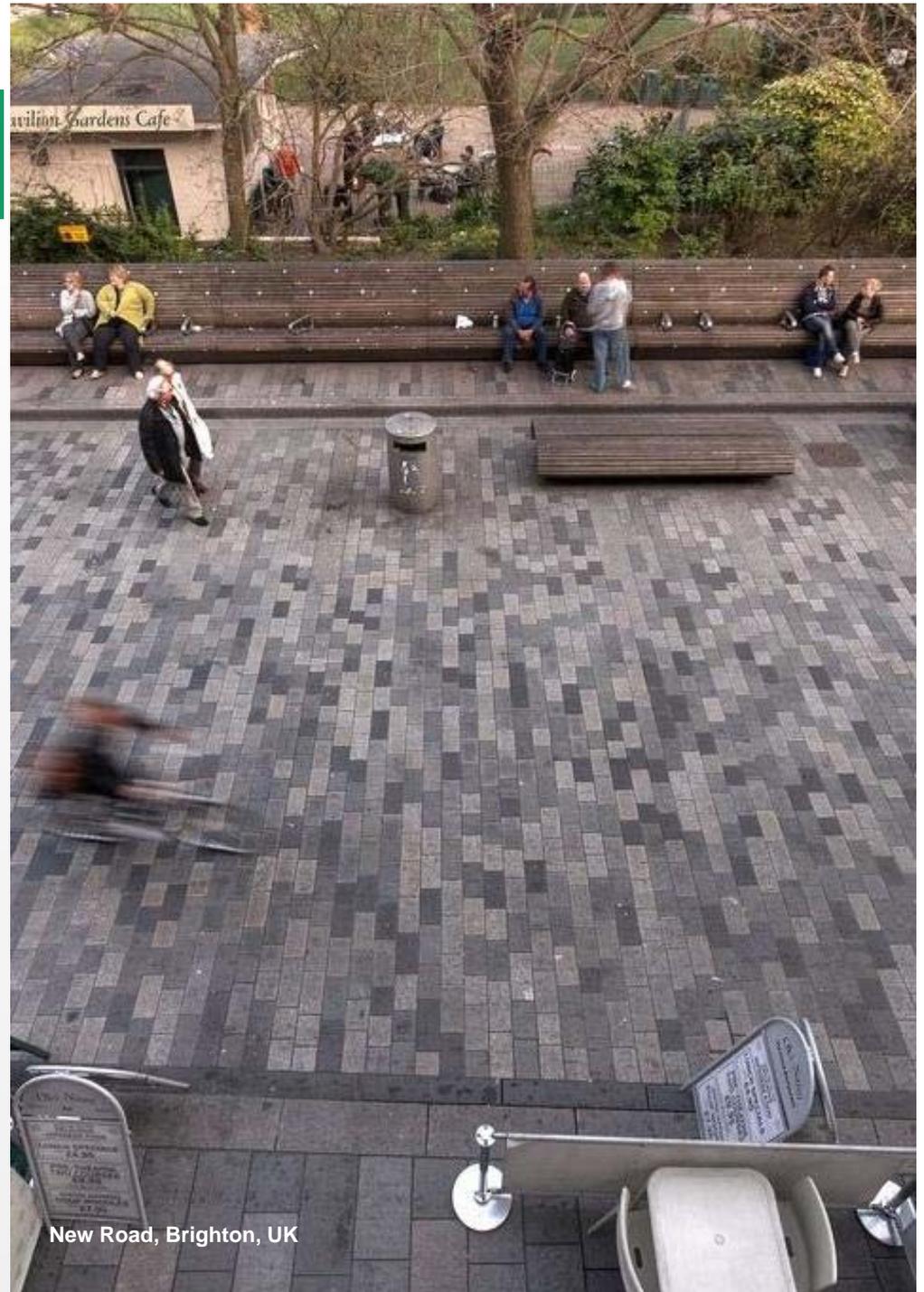
**Benches**



**Planters**



**Bicycle Parking**



New Road, Brighton, UK

## PEDESTRIAN SCALE

- Enhanced pedestrian comfort and safety:



**Street Trees**



**Streetlights**

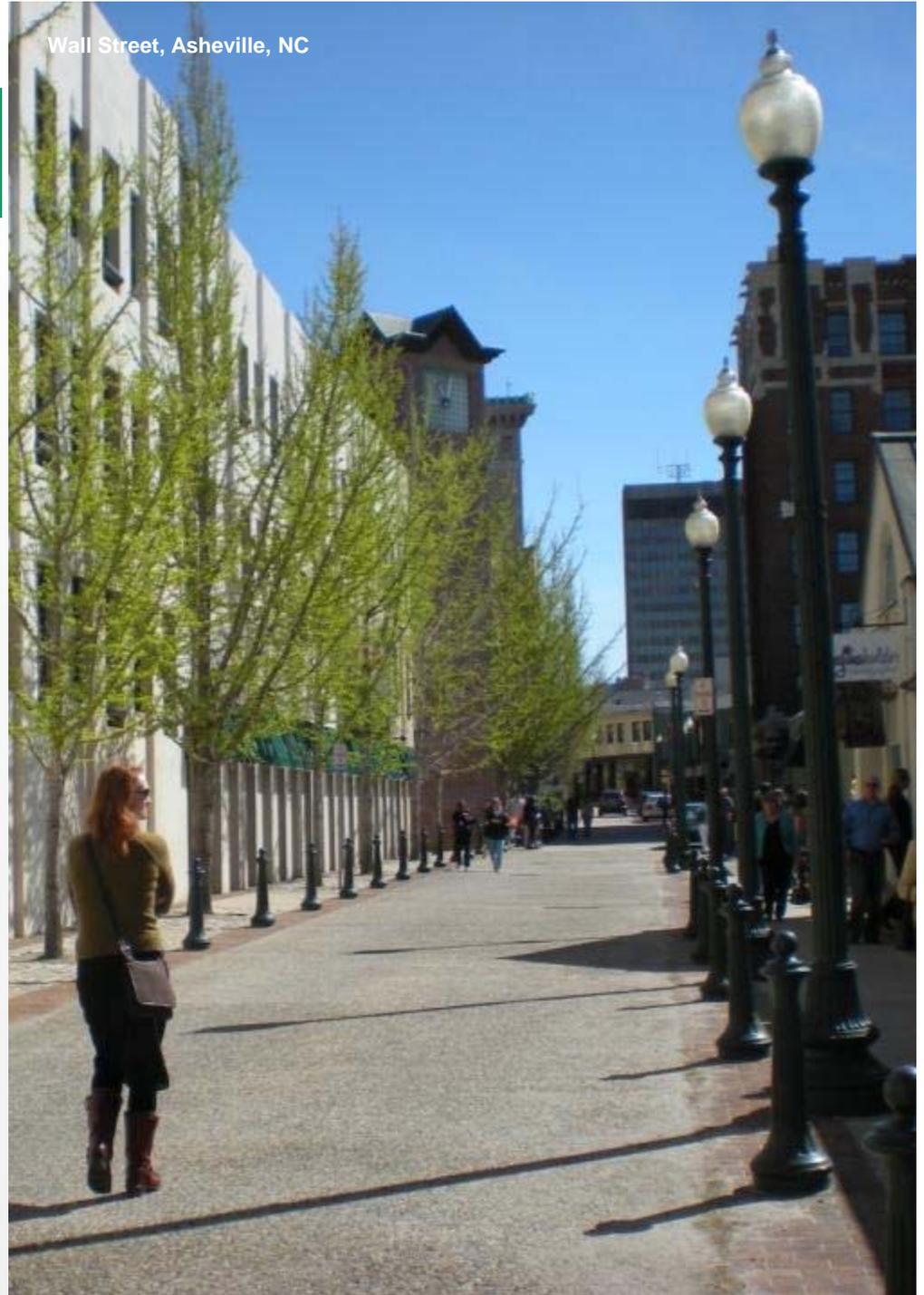


**Hung Lighting**



**Outdoor Cafes**

Wall Street, Asheville, NC



## GATEWAYS

- Elements that communicate a different street environment:



**Shared Street Sign**



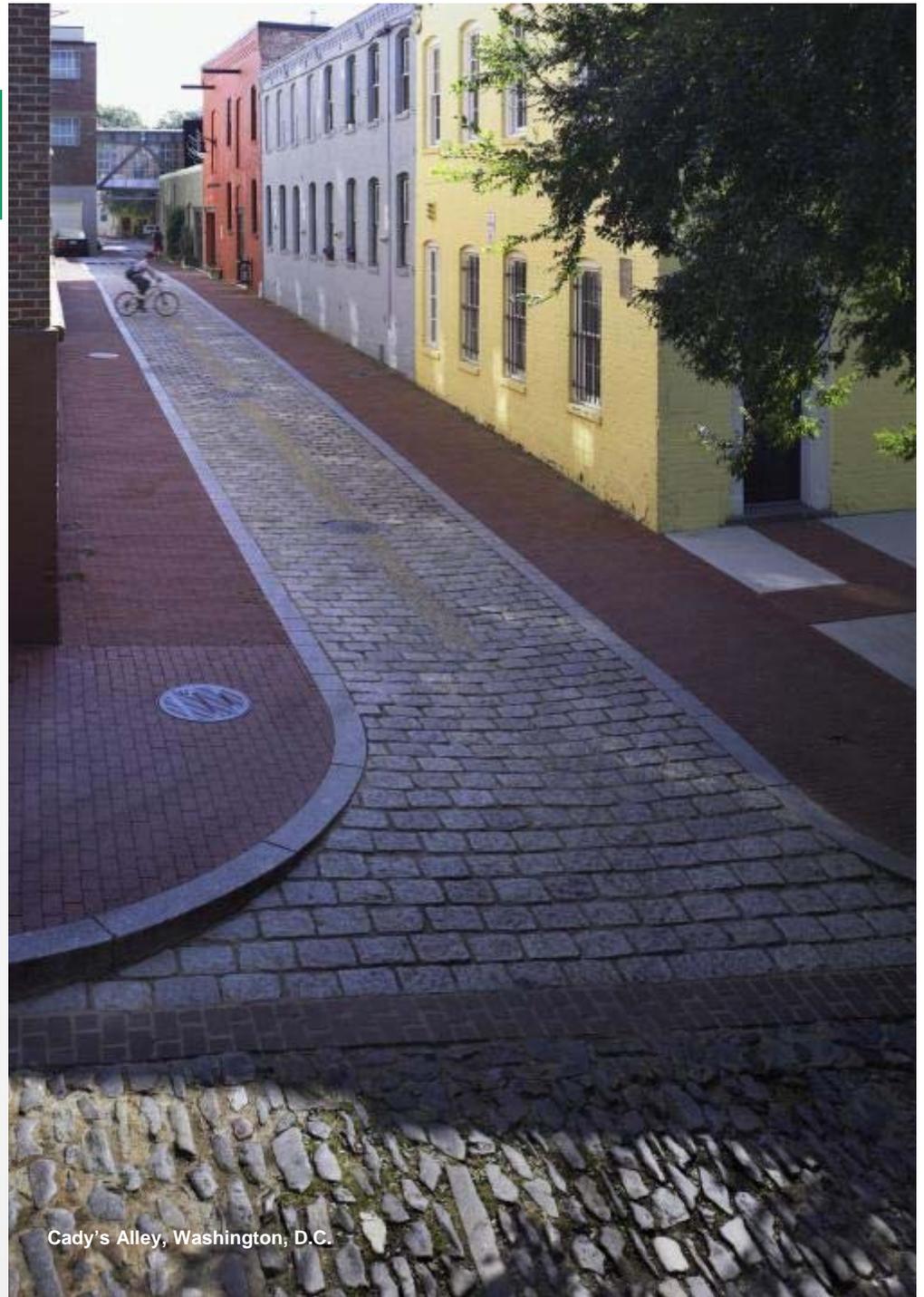
**Change in Pavement**



**Public Art**



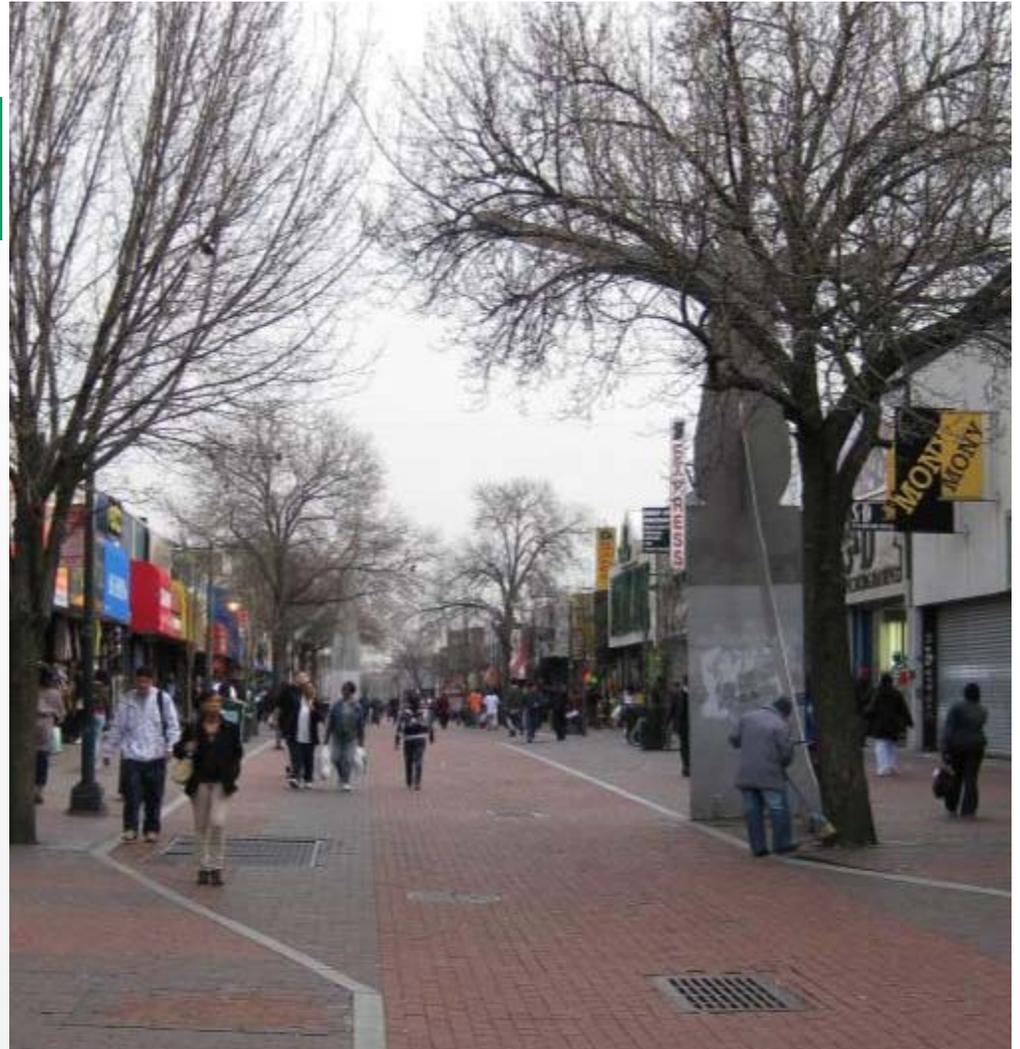
**Tactile Paving**



Cady's Alley, Washington, D.C.

## 165<sup>TH</sup> STREET JAMAICA, QUEENS

- Previously functioned as a normal two-way
- Redesigned in the 1970s to function as a pedestrian priority street to strengthen retail
- Closed to regular vehicular traffic and narrowed to one lane, but still accommodates deliveries and local traffic from 1-6PM
- Small- to medium-sized retail uses
- Distinctive pavers, pedestrian scale lighting, street trees, and public art



# 165<sup>TH</sup> STREET JAMAICA, QUEENS



# 165<sup>TH</sup> STREET

JAMAICA, QUEENS



# 165<sup>TH</sup> STREET

JAMAICA, QUEENS



## FESTIVAL STREETS

PORTLAND, OR

- Prompted by the community's concerns over a lack of public space
- Improvements made to material type and quality, upgrades to the features on the street and sidewalk
- Curbless streets closed to vehicular traffic for special occasions
- Regular two-way traffic with on-street parking but can easily be blocked off for events
- Although pedestrians cross freely, vehicles do have the right-of-way



# FESTIVAL STREETS

PORTLAND, OR



# FESTIVAL STREETS

PORTLAND, OR



# FESTIVAL STREETS

PORTLAND, OR



## CADY'S ALLEY

WASHINGTON, D.C.

- Previously a service alley for businesses along adjacent street
- By the 1980's the street had become largely neglected
- Developer built out the adjacent parcels to the alley's edge
- Converted buildings to include front entrances for retail and restaurants at a pedestrian scale
- Alley continues to allow deliveries and other service needs



# CADY'S ALLEY

WASHINGTON, D.C.



**CADY'S ALLEY**  
WASHINGTON, D.C.



# CADY'S ALLEY

WASHINGTON, D.C.



# FEEDBACK + DISCUSSION

# PROJECT OBJECTIVES

# PROJECT OBJECTIVES

1



Create a safe, comfortable, and convenient walking environment for all users.

2



Support and enhance economic and retail vitality

## PROJECT OBJECTIVES

3



Improve street aesthetics and visual quality

4



Accommodate all legitimate mobility and access needs, including goods deliveries and passenger drop offs, but place a priority on pedestrians.

## PROJECT OBJECTIVES

5



Design for sustainability, maintainability, and resiliency

6



Leverage and facilitate connections with surrounding activity centers, such as Willoughby Plaza, Fulton Street Mall, MetroTech, and Columbus Park

# NEXT STEPS

## NEXT STEPS

- **Design Concepts**  
(August/September)
- **2nd Stakeholder Meeting and Public Meeting**  
(Late September)
- **Preferred Alternative Development**  
(October)
- **Final Report**  
(November)

