What is Legible?

To understand the idea of a “Legible City” is to understand how a smart city functions.

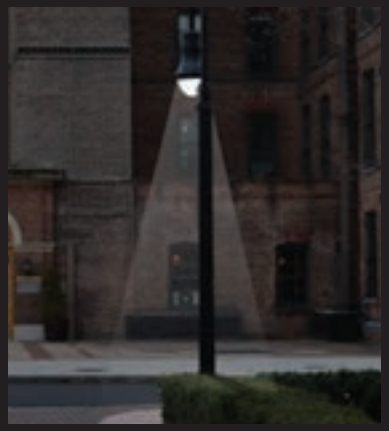
A typical city functions in such a way that the system services users.
In a “Legible City”, the system services the users while the users feed the services with data, thus creating a feedback loop resulting in a cycle of improved experiences.

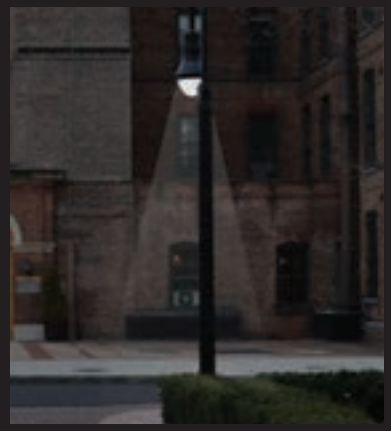
Legible Pratt

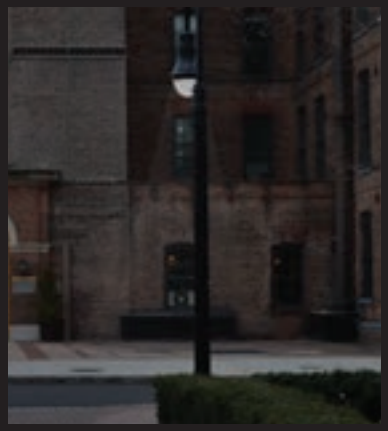
Legible Pratt is a “smart city” system that is explored through research, observations and interviews. With this collected anecdotal data, a methodology is created and applied to a variety of scales from campuses to cities.

The solutions proposed for Legible Pratt involve multi-layered systems that interact with people and services, providing a better experience for those who use and visit the Pratt Institute campus. This is achieved through new wayfinding systems, interactive installations and data-based indoor and outdoor displays.


EXIT





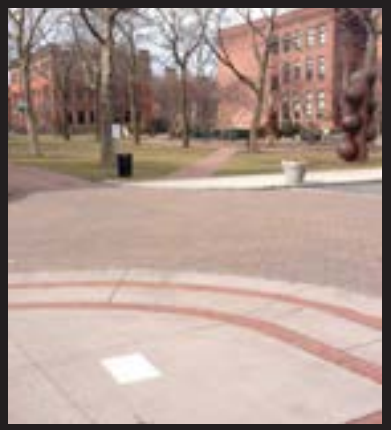


Methodology

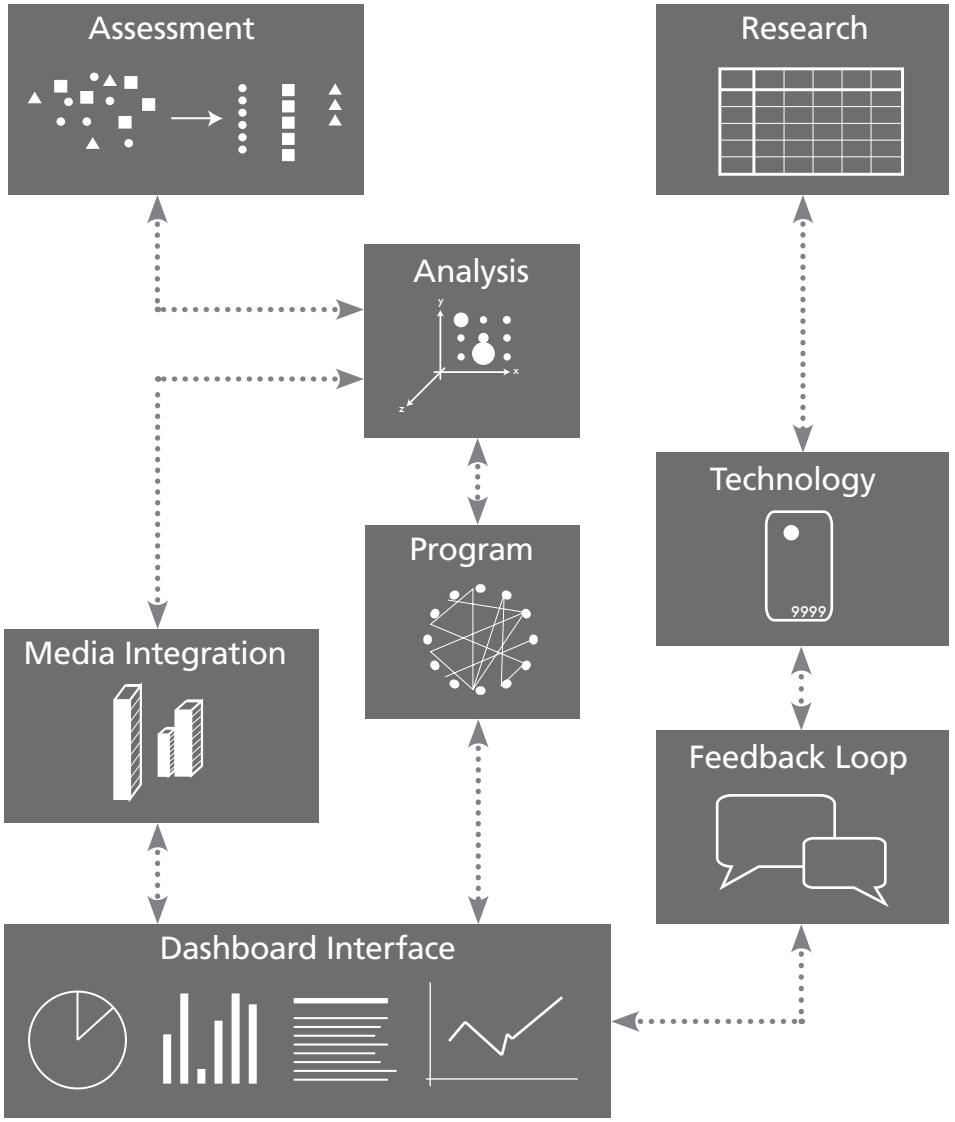
Traditionally, the design process has been thought of as a linear and sequential process where research and analysis are designated to the very first phase of project development.

Alternatively, analysis and design for legibility of information does not require a linear process model such that research and design can inform each other as solutions develop.

This realization results in a process model that incorporates research, analysis and user feedback as integral, correlative components that inform design solutions to complex problems.



Legible Pratt Process



Program Matrix

- Why is making information legible be beneficial?
- What different information typologies that are/ could be relevant to users?
- Who uses the Pratt Campus?
- Where are the potential access points located?
- When is the access to this information needed?
- How will information be made legible on Pratt?

WHO
Demographic

Students
Faculty
Staff
Visitors
Local Community
Pratt Institute

WHAT
Content

Wayfinding/Traffic
Calender/Events
Facilities Operations
Occupancy/Resources
Knowledge Sharing

WHEN
Time

Weekday/Weekend
Class Schedule
Semester Phase
Time of Day
Season

WHERE
Location

Off Campus
Campus
Building
Interstitials
Entrance/Lobby
Floors
Rooms

WHY
Goals

Predictive Modeling
Resource Allocation
Cost/Energy Saving
Knowledge Distribution
Interdisciplinary
Collaboration

HOW
Medium

Iconic Site Installation
Signage
Building Facade
Scrolling Text Display
Media Wall
Mobile Devices


BNY

Brooklyn Navy Yard

The Brooklyn Navy Yard (BNY) is a modern industrial park in a historic setting. Founded in 1801, the BNY was originally built for the purpose of constructing ships for the United States Armed Forces. The BNY is still owned by the City of New York, but is now managed by a not-for-profit organization called the Brooklyn Navy Yard Development Corporation (BNYDC). The BNYDC is responsible for leasing space in the Yard, for developing under utilized areas in the Yard, and for overseeing the ongoing modernization of the Yard's infrastructure.

The Brooklyn Navy Yard is spread out over 300 acres on Brooklyn's scenic waterfront with a campus that includes 40 buildings with three fully functioning dry docks, four active piers, 275 tenants that represent the diversity of present day manufacturing, and over 6,000 employees. As the BNY moves forward with its greatest expansion since World War II, the BNYDC is pursuing its mission to create and retain industrial jobs in New York City with a strong commitment to environmental sustainability and the celebration of the Yard's rich history.

BNY Program Matrix

The framework for analysis created for Legible Pratt was applied to the Brooklyn Navy Yard. Central to this analysis was considering how the proposed solutions can change the behavior of the users and enhance their experience.

WHO

Users

Tenants
Visitors
Clients
BNY Staff
Facilities Management
Security

WHAT

Wayfinding

Building Address
Orientation
Paths/Traffic
Public Facilities
Services
Identity

WHY

Goals

Safer BNY
Easy Wayfinding
Increased Accessibility
Efficient Circulation
Consistent Branding

WITH

Mode

Pedestrian
Driver
Biker

WHERE

Location

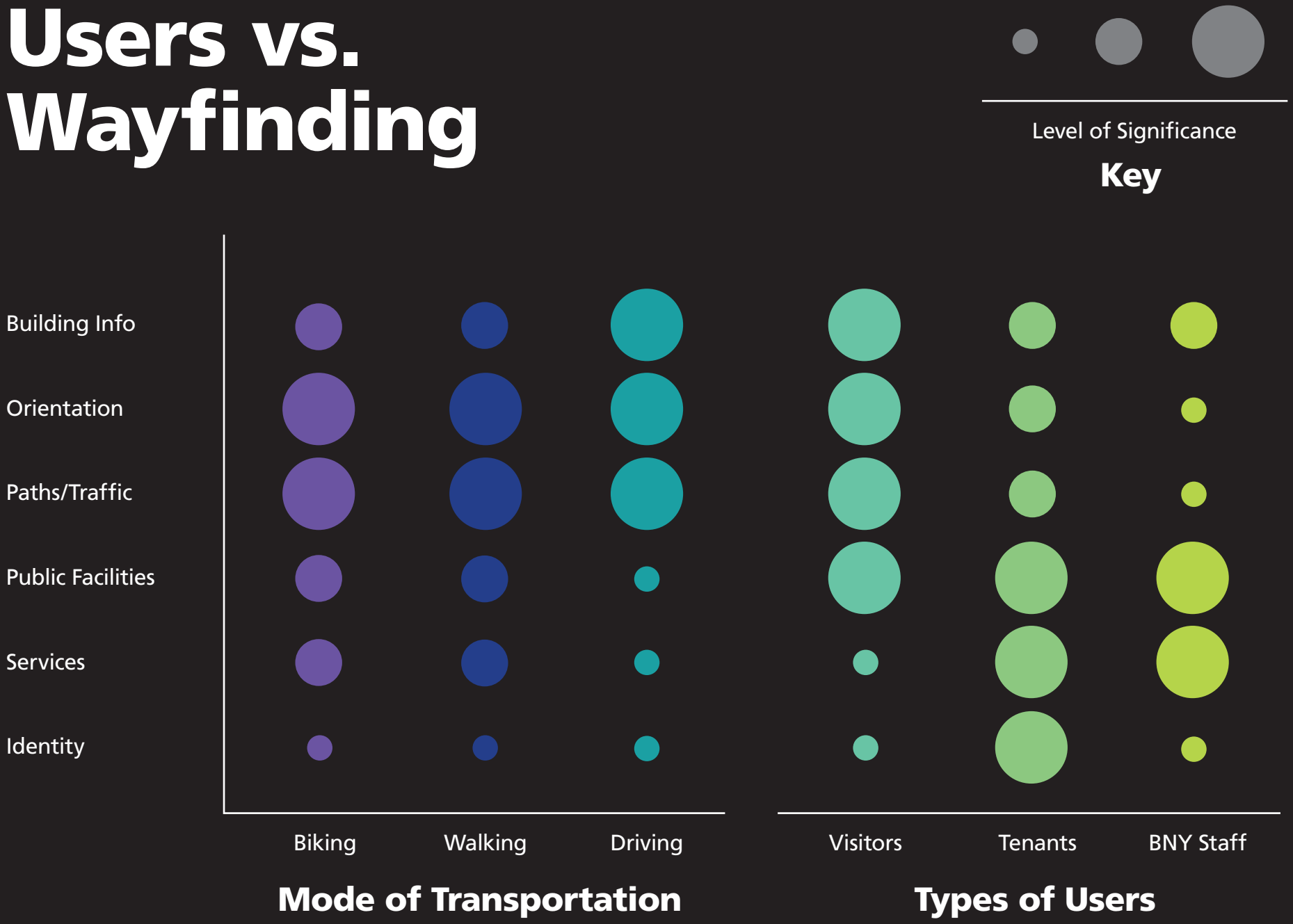
Security Entrances
Navy Yard Campus
Building Facade
Road
Sidewalk
Shuttle Stops

HOW

Medium

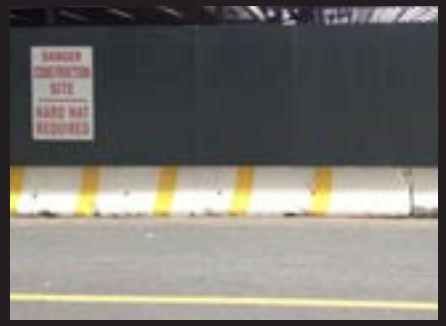
Navigation Signage
Maps
Speed Humps
Ramps
Visibility of Street Signs
Clear Paths

Users vs. Wayfinding



Current Wayfinding Signage

Current Transportation Signage



Current Safety Signage

Current Issues

Transportation

a) Visibility and continuity of bike paths;
b) Hierarchy of traffic paths and zones;
c) Accessibility and navigability of public transportation within the Yard;
d) Maintenance of signage and graphics that support traffic systems.

Wayfinding

a) Inconsistent signage and branding;
b) Difficulty searching and finding specific buildings and destinations;
c) Clarity and scale of existing signage;
d) Navigation from one destination to another within the Yard.

Safety

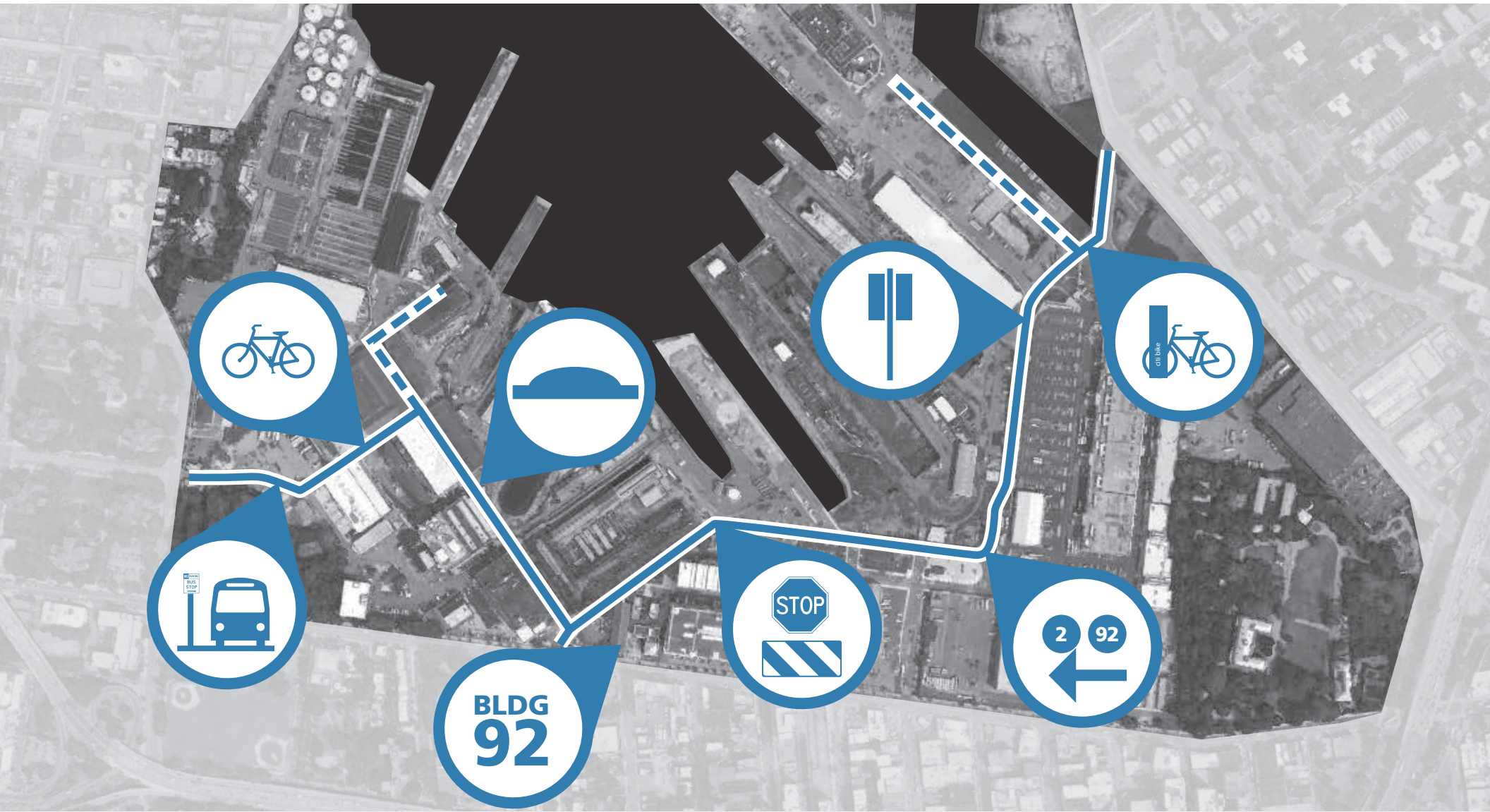
a) Speed control of traffic;
b) Appropriate placement and visibility of safety signage;
c) Clearly defined circulation paths for different user typologies, especially for cyclists.

Legible BNY Proposal

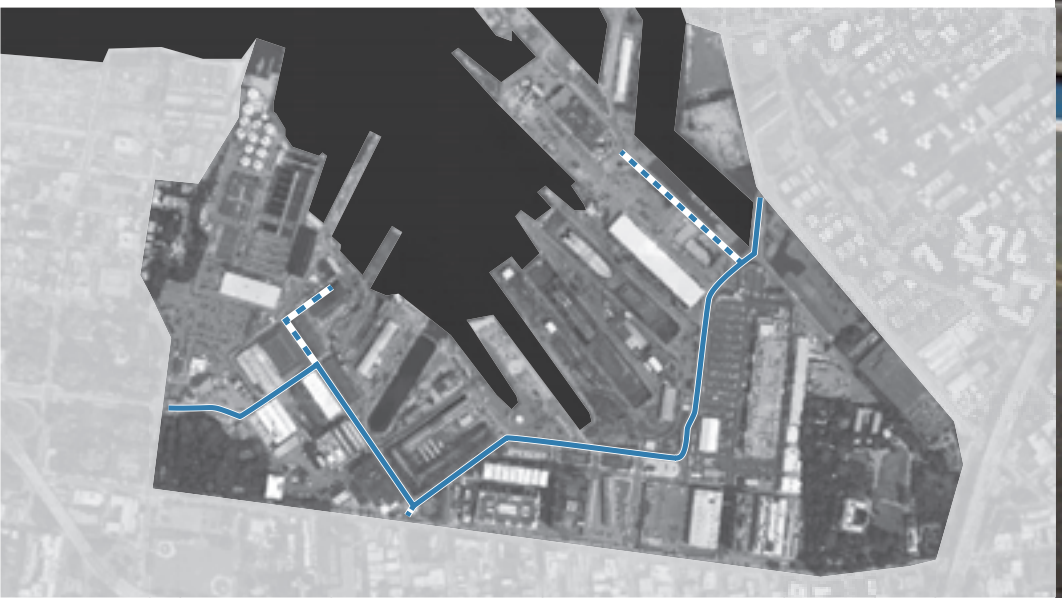
To conclude the first phase of Legible Brooklyn Navy Yard, we propose implementing a wayfinding system that addresses safety, signage and ease of navigation.

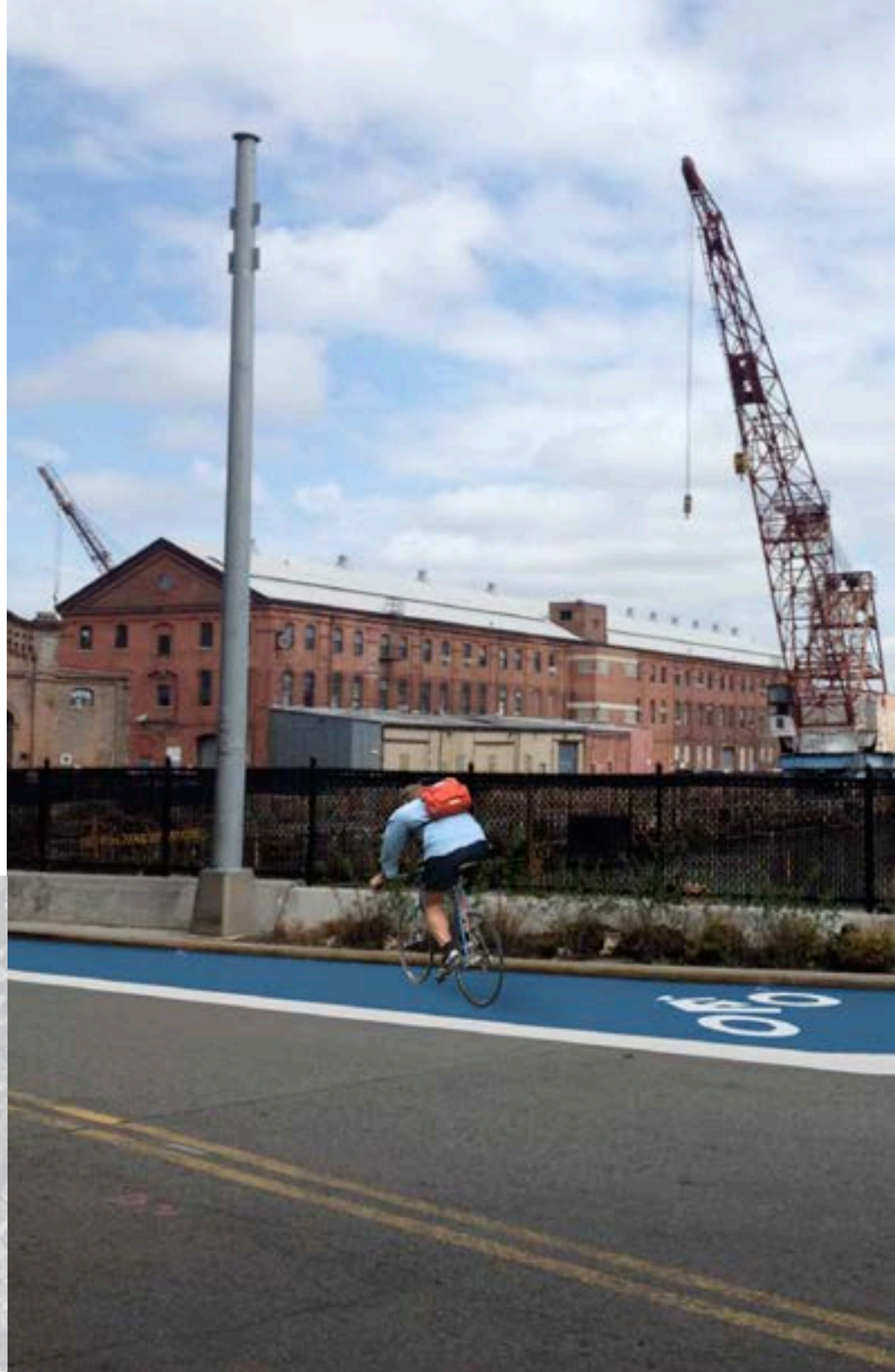
The alternative process model that was developed as a part of the Legible Cities project informs this multi-layered design proposal for the Yard by mapping multiple types of users to better identify areas with wayfinding inconsistencies. This will result in specific, data-driven solutions that meet the current set of safety and signage needs at the Brooklyn Navy Yard.

Path Experience Diagram



The Path





Signage By Speed

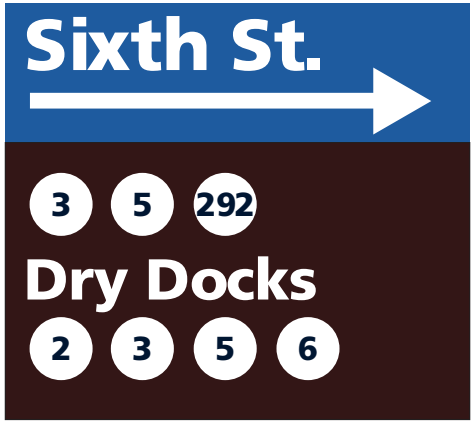
Current Conditions

Current State

Change (Now)

Change (Future)

Change (Now)



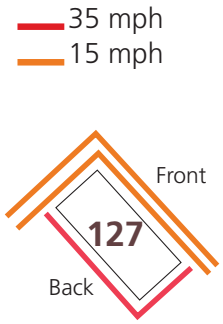
Painted Speed Hump

Physical Speed Hump

Digital Speed Hump

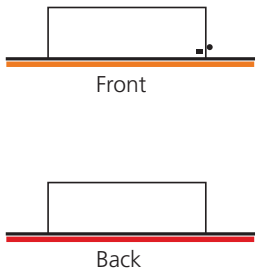
Signage By Speed

Current Speed



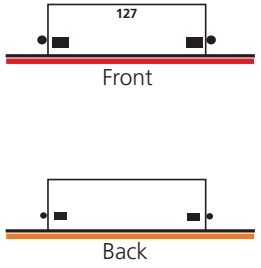
Sign-Symbol-Building Ratio

Current Elevation



Suggested: Change in size by speed

Suggested Elevation

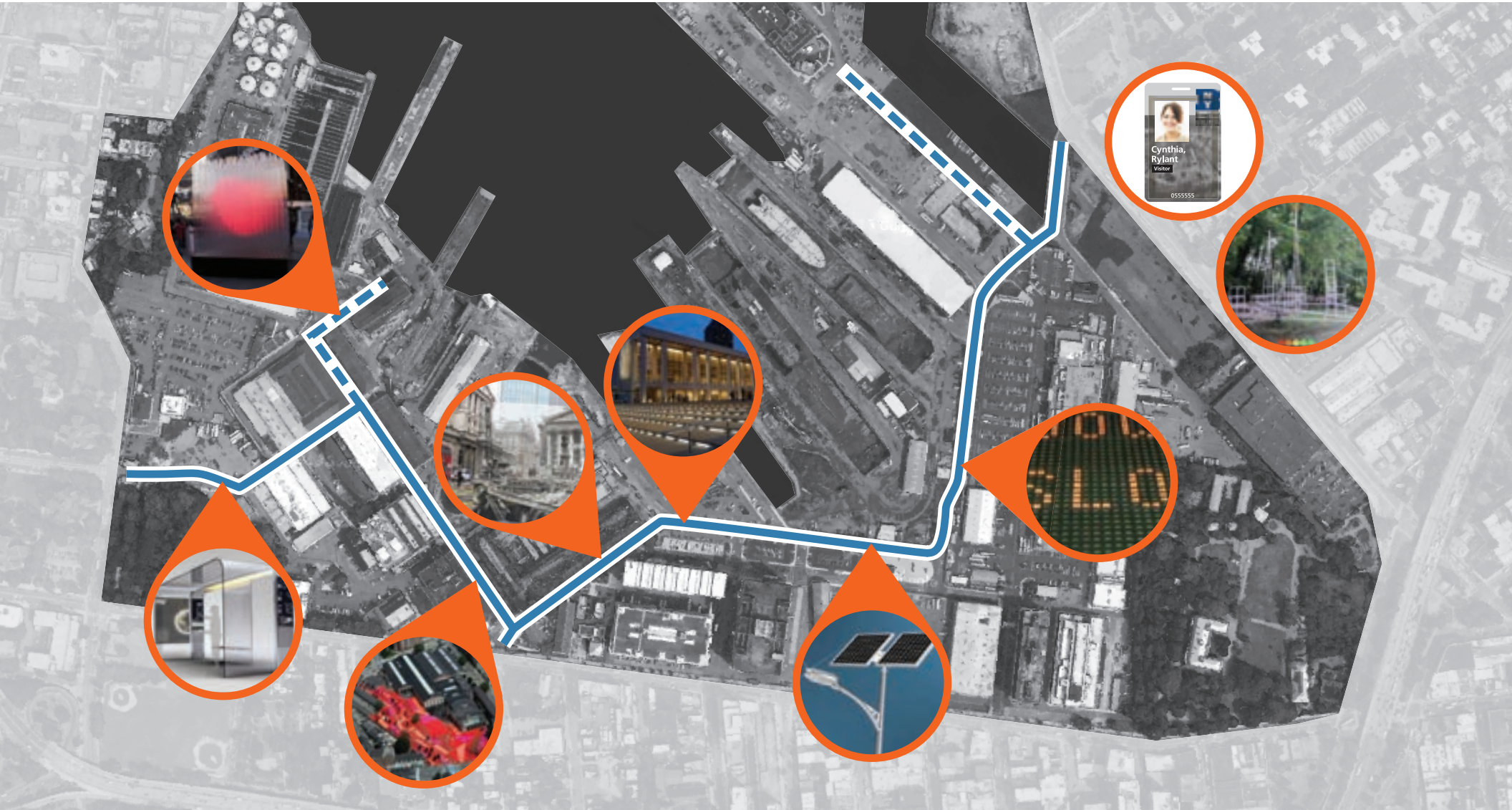


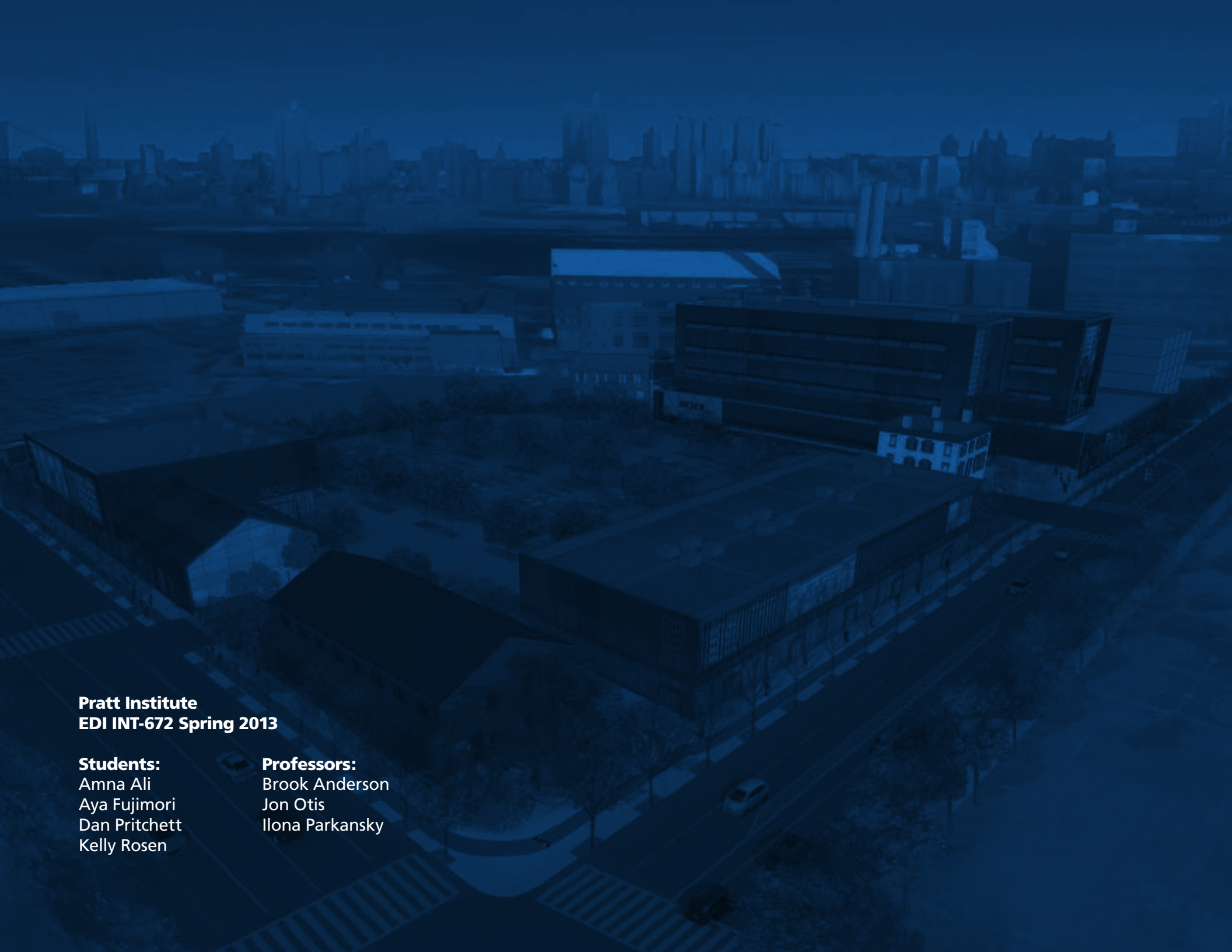
Phases of Proposed Improvements

Improvements	Solution **now** (simple solution)	**Future** solution (Data driven)
Signage	- cohesive and simple signage - increase contrast	- signage from lights - on ground wayfinding system - live mass transportation access guide
Safety	- speed humps - re-painted street signs - appropriate placement of signs	- RFID card system that security can detect entering and exiting - knowledge sharing of improvements
Path	- painted/colored paths (main road & bike path) - pedestrians = stripes	- app/media platform (foot), RFID that navigates via light (modes of transportation),on ground wayfinding system

Change in behavior within BKNY

Legible Experience Diagram





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