PEOPLE ON PENN

PENNSYLVANIA AVENUE PEDESTRIAN LIFE STUDY

DC Office of Planning

**A Study of the Pedestrian Experience of
Pennsylvania Avenue NW**

A Partnership Effort between the
District of Columbia Office of Planning and the National Capital Planning Commission

FOCUS: Elevating the Pedestrian Experience of Pennsylvania Ave to Realize its Role as a Great Street

The aim of this project is to support the National Capital Planning Commission's (NCPC) Pennsylvania Avenue Initiative, through a detailed study of the functionality of the Avenue's public spaces and sidewalks, to help inform a vision for how Pennsylvania Avenue can meet local and national needs in a 21st century capital city and perform as a truly great pedestrian street.

Work for this study was carried out jointly by staff from NCPC and DCOP. Staff from both agencies gathered pedestrian use and acitivity data for the sidewalks and plazas of Pennsylvania Avenue from 7th to 14th Street over two full-day site visits in July and October 2015. Following the collection of data, staff from OP's Design Divsion analyzed the data and prepared draft findings that were reviewed and refined by lead staff from both agencies.

The classic, monumental view corridor down Pennsylvania Avenue to the Capitol Building. This view is primarily afforded to the automobile.

CONTENTS

The Capitol Building sits at the eastern end of Pennsylvania Avenue, but this preeminent view is afforded primarily to the automobile.

PART I

INTRODUCTION

A Great Street in Waiting.

A History of Public Life on Pennsylvania Avenue.

Critical Findings and Observations.

WHAT MAKES A GREAT PEDESTRIAN STREET?

"First and foremost, a great street should help make community: should facilitate people acting and interacting to achieve in concert what they might not achive alone. The best streets will be those where it is possible to see other people and to meet them; all kinds of people, not just of one class or color or age."

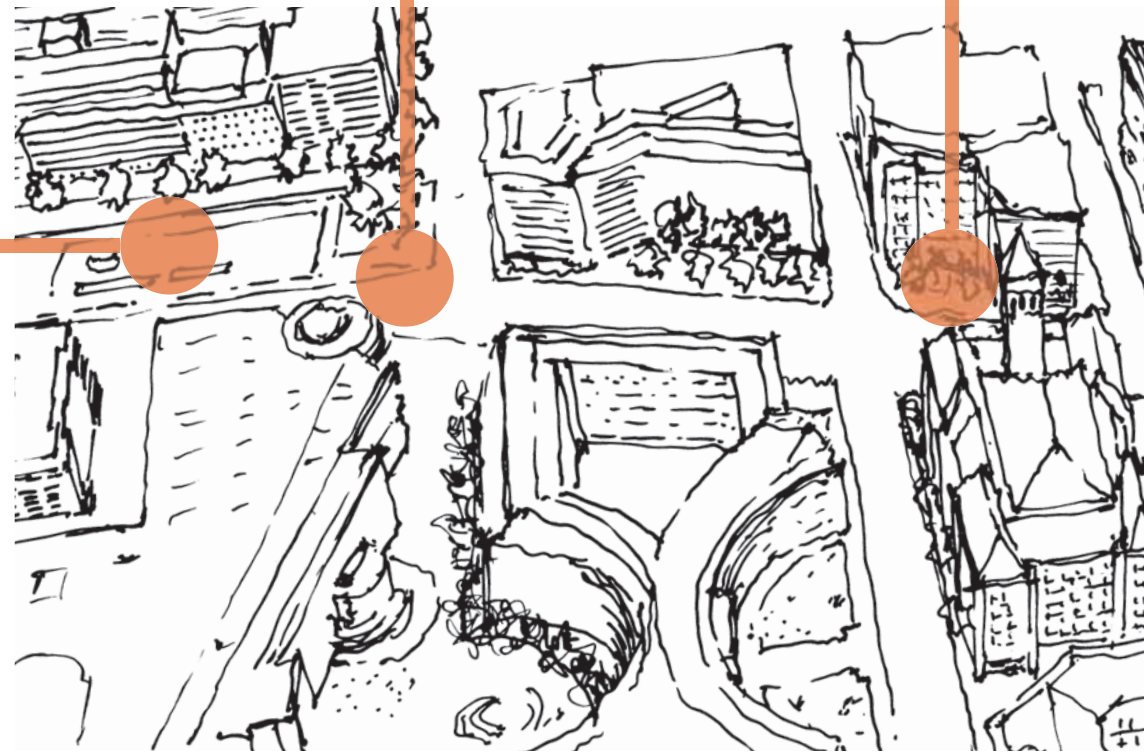Allan B. Jacobs "Great Streets"

EVENT ATTENDEES

CHILDREN

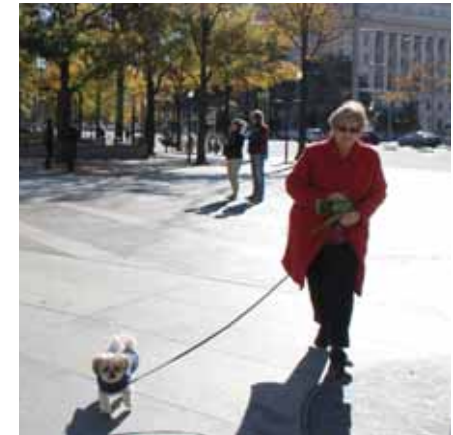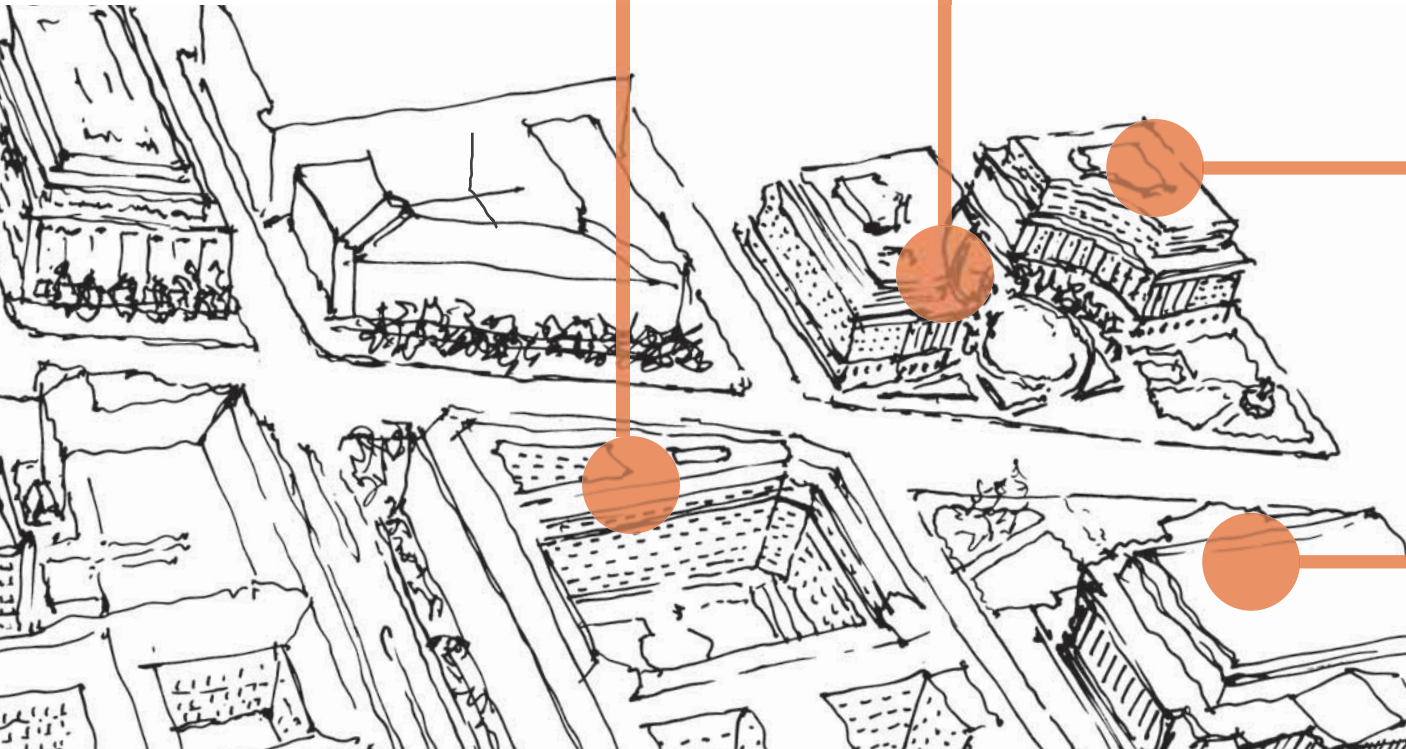**RECREATION ENTHUSIASTS**

WORKERS

FAMILIES AND SENIORS

DC RESIDENTS

TOURISTS

PENN AVE IS A GREAT STREET IN WAITING

Pennsylvania Avenue is an excellent street-in-waiting, featuring a thoughtful and well-designed streetscape and grand architectural frame, but lacking the critical public life and pedestrian activity typically found on other "great streets" or on many downtown DC streets. Pedestrian activity is influenced by multiple factors including the design of the built environment and its walkability. A "great street," such as the Champs-Élysées in Paris or the Ringstrasse in Vienna, typically balance several modes of tranportation but create a prominant space for pedestrains. In comparison, Pennsylvania Avenue gives more of its space to the vehicular modes of transportation.

WIDTH: 160' (49m)
TRAFFIC: 8 lanes
STATUS: Ceremonial street connects the Capitol Building to the White House

PENNSYLVANIA AVENUE
Washington, D.C.

WIDTH: 230' (70m)
TRAFFIC: 10 lanes
STATUS: World-class shopping and dining street connects major landmarks

CHAMPS ÉLYSEÉS
Paris, France

STREET SECTIONS

The sectional qualities of a street are strong indicators of the pedestrian experience. Pennsylvania Avenue's section lacks the complexity and organizational principles of other "Great Streets" and much of the sidewalk area is inactive. As a result, there is little pedestrian activity.
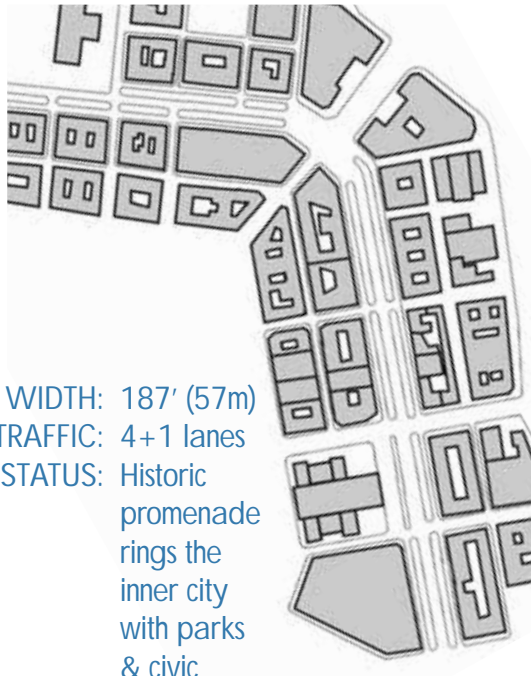

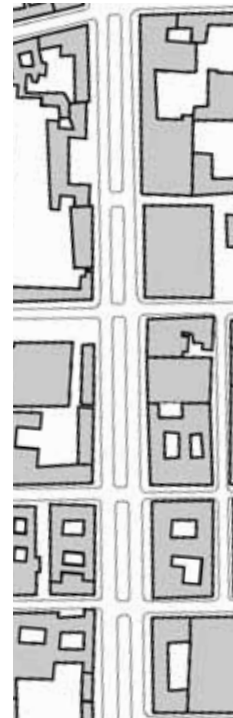Wide sidewalks and inactive facades do not encourage pedestrian activity.

Programmed zones within the sidewalk keep the entire space active and bustling.

WIDTH: 187' (57m)
TRAFFIC: 4+1 lanes
STATUS: Historic promenade rings the inner city with parks & civic monuments

RINGSTRASSE
Vienna, Austria

WIDTH: 197' (60m)
TRAFFIC: 6 lanes
STATUS: Boulevard in the historic city anchored and framed by the Brandenburg Gate

UNTER DEN LINDEN
Berlin, Germany
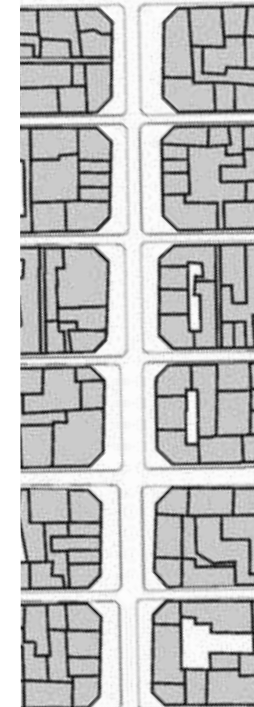
WIDTH: 138' (42m)
TRAFFIC: 6+2 lanes
STATUS: Major avenue within the primary shopping and business district

PASSEIG DE GRACIA
Barcelona, Spain

Pedestrian and bicyclist zones buffered by trees provide a park-like feel.

A wide center median programmed with pedestrian-friendly activities draws people.

Human-scaled sidewalks and good land use make this an active pedestrian street.

A HISTORY OF PUBLIC LIFE ON PA AVE

From its inception as a grand boulevard that connects the houses of government in the nation's capital, Pennsylvania Avenue has had a prominent but primarily ceremonial role in the District's geography. As the city has grown and changed over the past 200 years, as has the landscape of the avenue, including its intentional place as a governmental hub. The challenge facing the agencies working to shape Pennsylvania Avenue for the 21st century is how to maintain the current air of grandeur while reintroducing the human scale to the sidewalks and streetscape.

From the late 19th to early 20th century, Penn Ave was a bustling commercial street with small shops such as the hat merchant on 12th St.*

A photo of the new Internal Revenue Service building from 1930 shows the loss of pedestrian vitality and activity.

In the 1970s, Washington Wine & Liquors occupied the space of the former hat merchant while the upper floors sat vacant.

1900s: Pedestrian City

As Washington, DC, grew into the nation's capital, Pennsylvania Avenue developed into a main artery connecting the governmental buildings in the city. The avenue functioned as a commercial, residential, recreational, and transportation corridor.

1930s: Erosion of Public Life

The development of Federal Triangle in the 1930s concentrated large governmental offices along the south side of Pennsylvania This focus on singular land use and large buildings eliminated the mix that drew a variety of people to the area.

1960s: Loss of Public Life

By the late 1960s, with the decline of Downtown the avenue lost much of its remaining commercial activity as shops closed, or were replaced by low end retail uses.

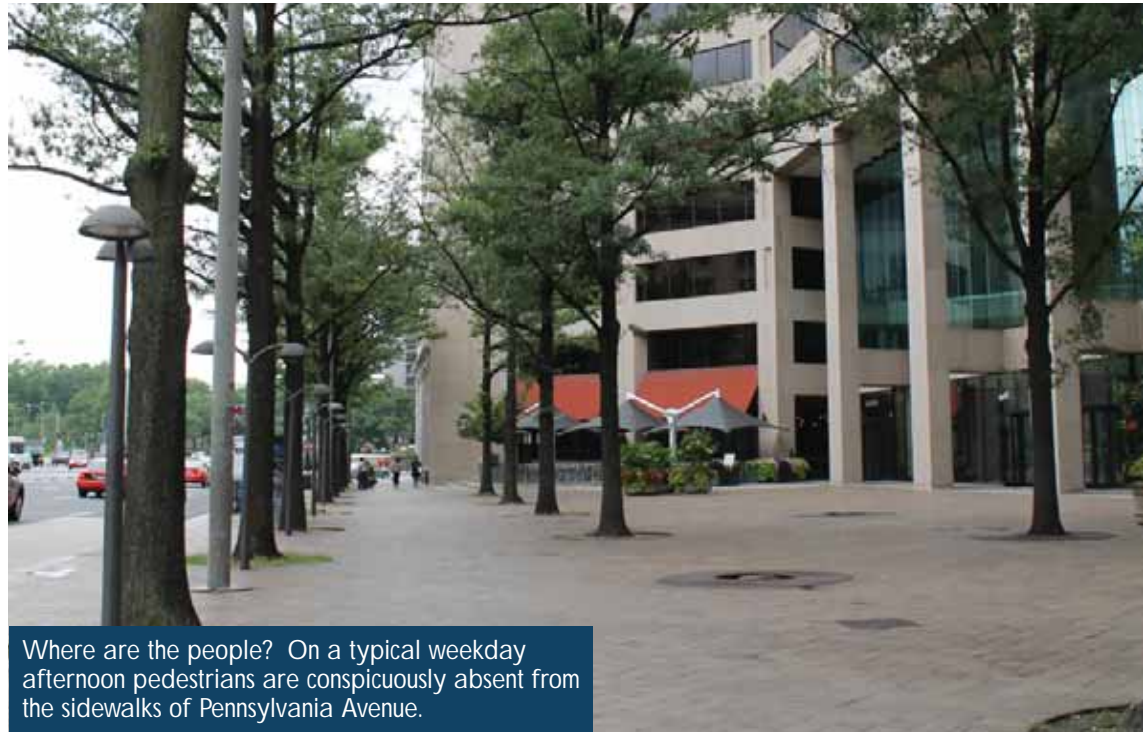* images and information from Streets of Washington, "The Little Shop that Survived (Sort of), 8 August 2010.
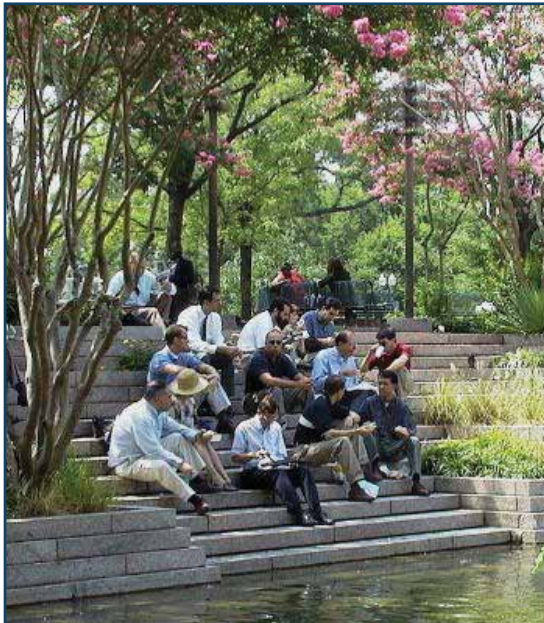
When it was first built, Pershing Park was a popular destination for office workers and familes with active programming and lush landscapes.

Where are the people? On a typical weekday afternoon pedestrians are conspicuously absent from the sidewalks of Pennsylvania Avenue.

1980s: Seeds of Renewal

PADC succeeded in renewing public life in many parts of Pennsylvania Avenue after many years of decline with critical investments places like Navy Memorial Plaza, Pershing Park, and the Old Post Office Building.

2015: More Work to be Done

Today's experience of Pennsylvania Avenue is of monumental buildings, gracious trees, and few people or activities to attract them.

In order to fullfill the avenue's role as a great street action needs to be taken to restore its rich public life through a contemporary lens while celebrating it symbolic role.

** Source: Department of Special Collections, Gelman Library, George Washington University.

CRITICAL FINDINGS AND OBSERVATIONS

Major Positive Elements

SPLENDID TREE CANOPY

GENEROUS STREETSCAPE

STATELY ARCHITECTURE

Major Issues to be Addressed

LACK OF PLACES & DESTINATIONS

PERIPHERAL LOCATION

STRENGTH

Trees provide **shade, sense of enclosure and greenery.** Spacing and repetition reinforce formal nature of street design.

CHALLENGES

Many of the trees and other landscaping are **unhealthy** and struggle for soil and air, especially on the south side of the street.

STRENGTH

The design of streetscape elements such as benches, trees, tree grates, and lamp posts is **elegant and enjoyable.**

CHALLENGES

Avenue often looks **empty** and the abundance of security planters is a design issue that has not been addressed consistently.

STRENGTH

Consistent and monumental nature of buildings emphasizes the **grandeur** of the street and position in Nation's Capital.

CHALLENGES

Consistency of the facades does **not provide complexity or visual interest** to the passer by.

PROBLEM

Very few places and destinations to visit.

IMPACT

The avenue has fewer people on it than comparable downtown streets. **Little to draw people to this area** unless they live or work nearby.

PROBLEM

Occupies the space between downtown and the National Mall.

IMPACT

The street has an **unclear identity**. The area could be a hybrid of both downtown and cultural functions, but currently is neither.

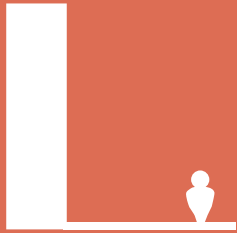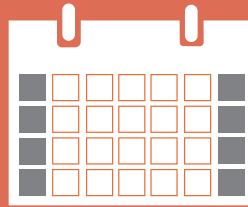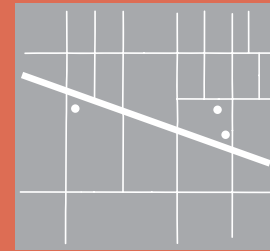| LACK OF HUMAN SCALE | NO REASON TO LINGER | PROGRAMMING AT OFF HOURS | INACTIVITY AT NIGHT | HOMELESS ACTIVITY |

PROBLEM

Buildings, sidewalks, and monuments are out of scale with the human.

IMPACT

Lacks a sense of enclosure and comfort within the space. People gather at smaller spaces within the area, and do not linger on the sidewalks.

PROBLEM

Once people come to Pennsylvania Avenue, few reasons to stay.

IMPACT

Singular purposes: working, eating, transportation. Avenue **functions on one level at a time**, without layering of uses necessary for vibrancy.

PROBLEM

Major event programming occurs at night and on weekends.

IMPACT

Pedestrian activity occurs on weekdays during commuting times. Major **events happen at off-peak times** when there are no natural flows of pedestrian traffic.

PROBLEM

After the PM rush hour, avenue is sparsely populated.

IMPACT

Area can become **dangerous and unfriendly** without "eyes on the street." Lack of people further reinforces feeling of placelessness.

PROBLEM

Observed high incidence of homelessness in both July and October.

IMPACT

Large homeless population presents **safety and security concerns**. Lack of pedestrian activity creates discomfort, particularly at night.

The outdoor dining at Elephant & Castle is secluded from the sidewalk.

Benches and street furniture are interspersed with security planters.

A children's Halloween parade at Navy Memorial.

People prefer to gather and sit on the low walls and steps of the Navy Memorial plaza.

PART II

HOW DO WE MAKE PENNSYLVANIA AVENUE A GREAT STREET?

Evaluation of Design Challenges to be Addressed.
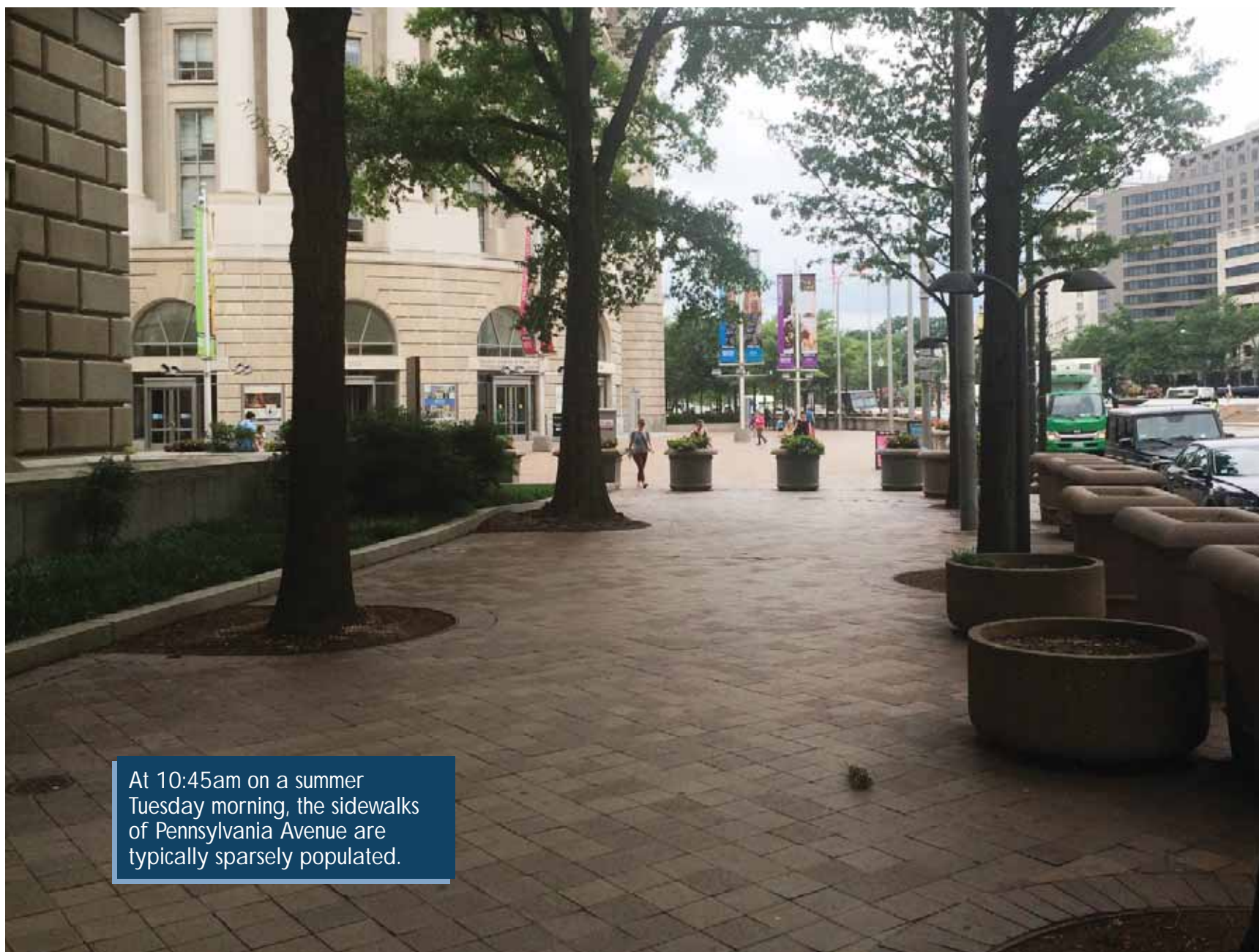
At 10:45am on a summer Tuesday morning, the sidewalks of Pennsylvania Avenue are typically sparsely populated.

DESIGN CHALLENGES

Pennsylvania Avenue has a series of obstacles that prevent it from becoming the Great Street to which it aspires. By viewing these obstacle as design challenges we can begin to understand the complex nature of this place within the nation's capital.

1. HOW DO WE ENCOURAGE A MIXTURE OF USES?

2. HOW DO WE CREATE ENGAGING BUILDINGS?

3. HOW DO WE ACTIVATE THE PLAZAS?

4. HOW DO WE PROVIDE MORE INTIMATE SIDEWALKS?

5. HOW DO WE MAKE PA AVE A DESTINATION EXPERIENCE?

How do we create diverse and exciting uses along Pennsylvania Avenue?

Lack of Places and Destinations Along PA Ave

Pennsylvania Avenue's lack of places and destinations is apparent from this Google map image. Within the study area, there are almost no places tagged or labeled. While simplified, this map gives a general overview of a street sorely lacking in "places."

PA Ave Study Area
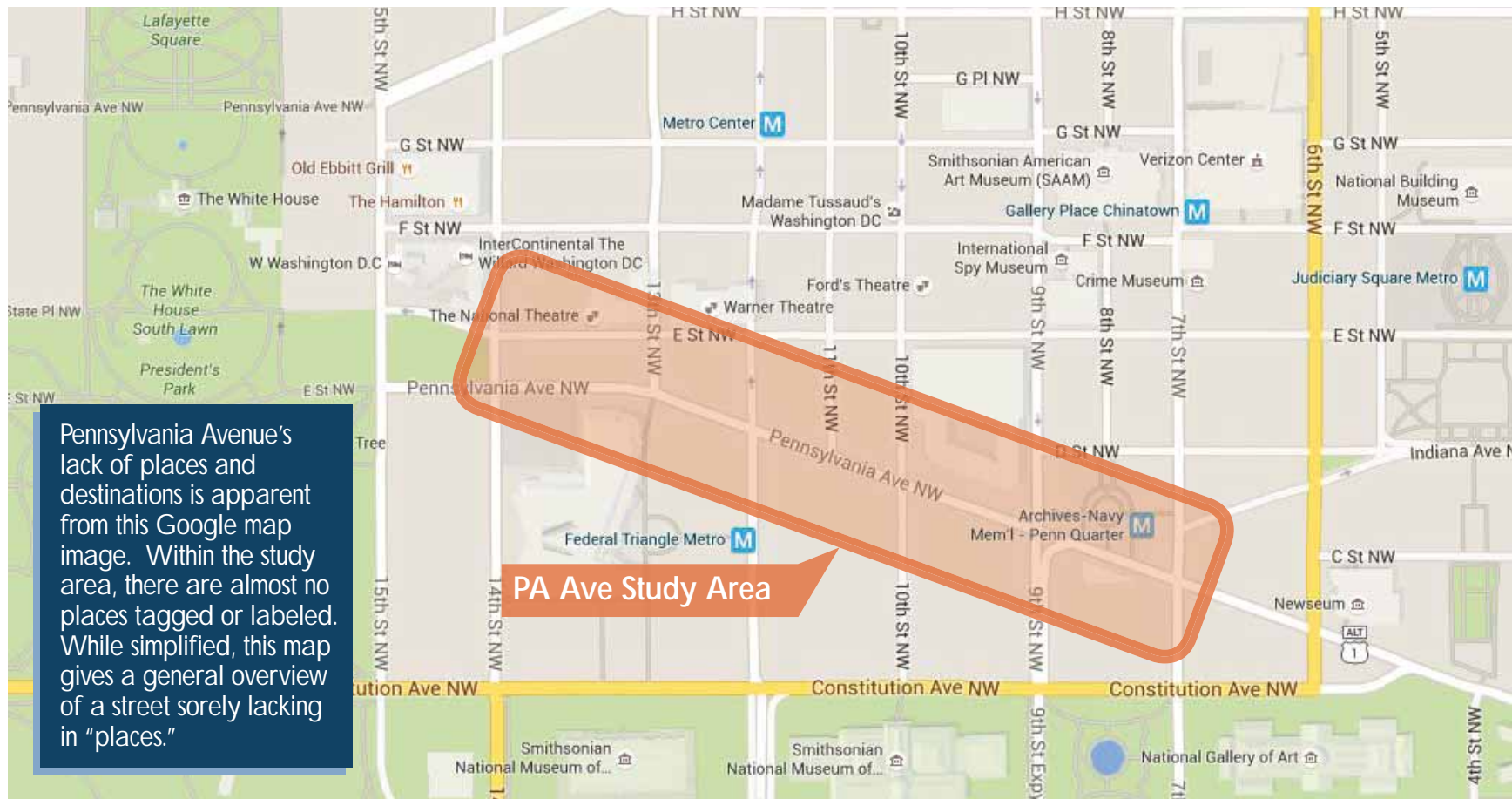
Less Active than the Average Downtown Street

Despite excellent Metro and regional bus access, the pedestrian acitivty of Pennsylvania Avenue under perfomrs similar transit accessible places in Downtown. Potential factors that might explain this underwhelming performance are a lack of destinations, a poor mix of land uses, and a overall lower surounding density of office workers.
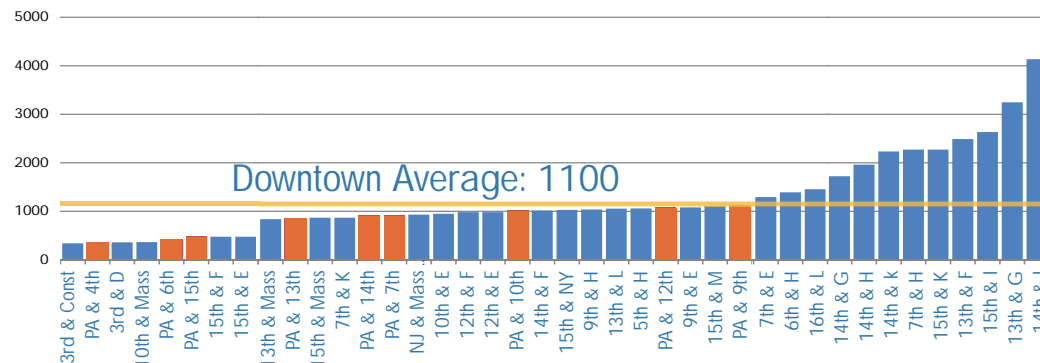
AM Peak Hour Pedestrian Counts for Select Downtown Intersections

All of PA Ave underperforms as a pedestrian space as compared to other downtown streets.

Number of Pedestrians

Downtown Average: 1100

* Source: District Department of Transportation, Signalization Study, 2014.

Low Metro Ridership

The Archives/Navy Memorial Metro stop has the lowest ridership for both entry and exit data at peak AM and PM times as compared to other Metro stops downtown.
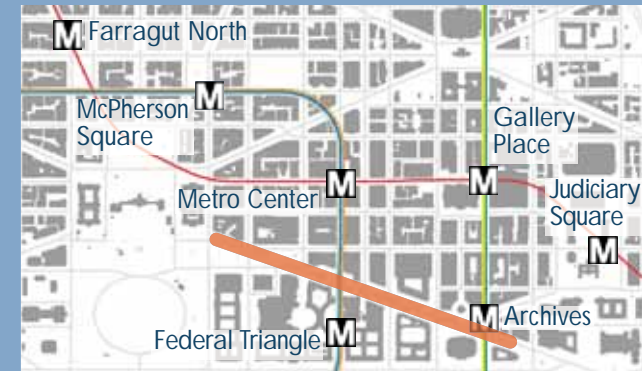
Station	AM Peak	PM Peak
Archives/Navy Memorial	5579	5624
Federal Triangle	5825	5845
Judiciary Square	6340	5755
Gallery Place	13,094	17,341
Metro Center	14,979	15,323
McPherson Square	10,643	9409
Farragut North	16,339	15,901

Source: WMATA, October 2014.

Lack of Land Use Diversity Discourages Pedestrian Activity

The lack of land use diversity has a negative impact on the pedestrian activity on Pennsylvania Avenue. In comparison to other streets with higher land use diversity, the pedestrian counts for a typical day are significantly lower. The map below shows a comparison of pedestrian counts at various intersections along Pennsylvania Avenue and 7th Street NW. As the land uses diversify along 7th Street north of Pennsylvania Avenue, the pedestrian traffic increases dramatically. Within the study area, the pedestrian counts remain low where land uses are homogeneous and not active.

Peak Hour Pedestrian Count Comparison with 7th Street NW

126% the amount of pedestrian activity on 7th Street as compared to Pennsylvania Avenue

7th & F: **1527**
7th & E: **1297**
7th & D: **904**

PA & 13th: **868**
PA & 10th: **1009**
PA & 9th: **1118**
PA & 7th: **912**

LEGEND
- Low Density Residential
- Low-Medium Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Mixed Use
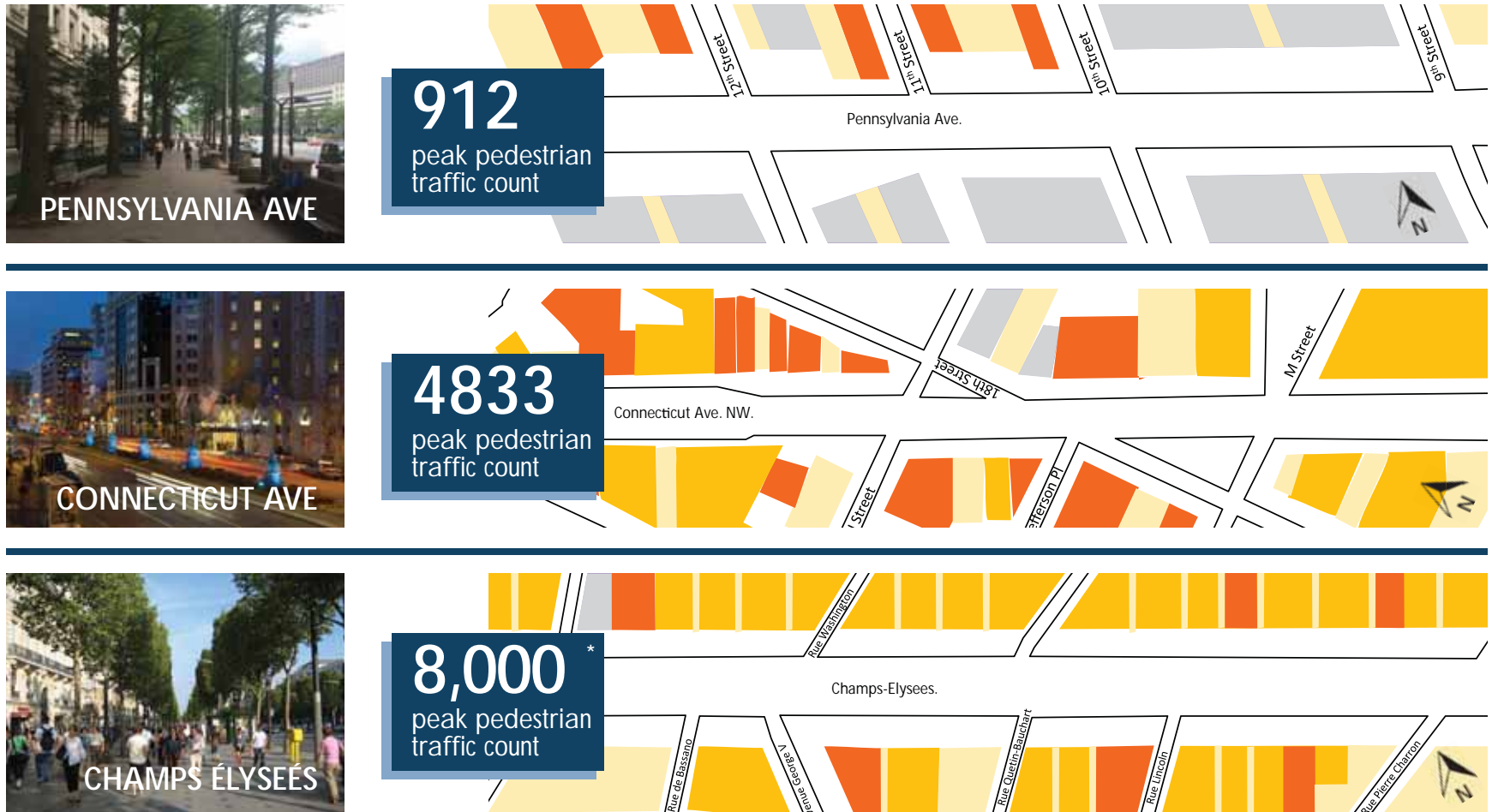- Institutional
- Public/Civic
- Parks and Open Spaces
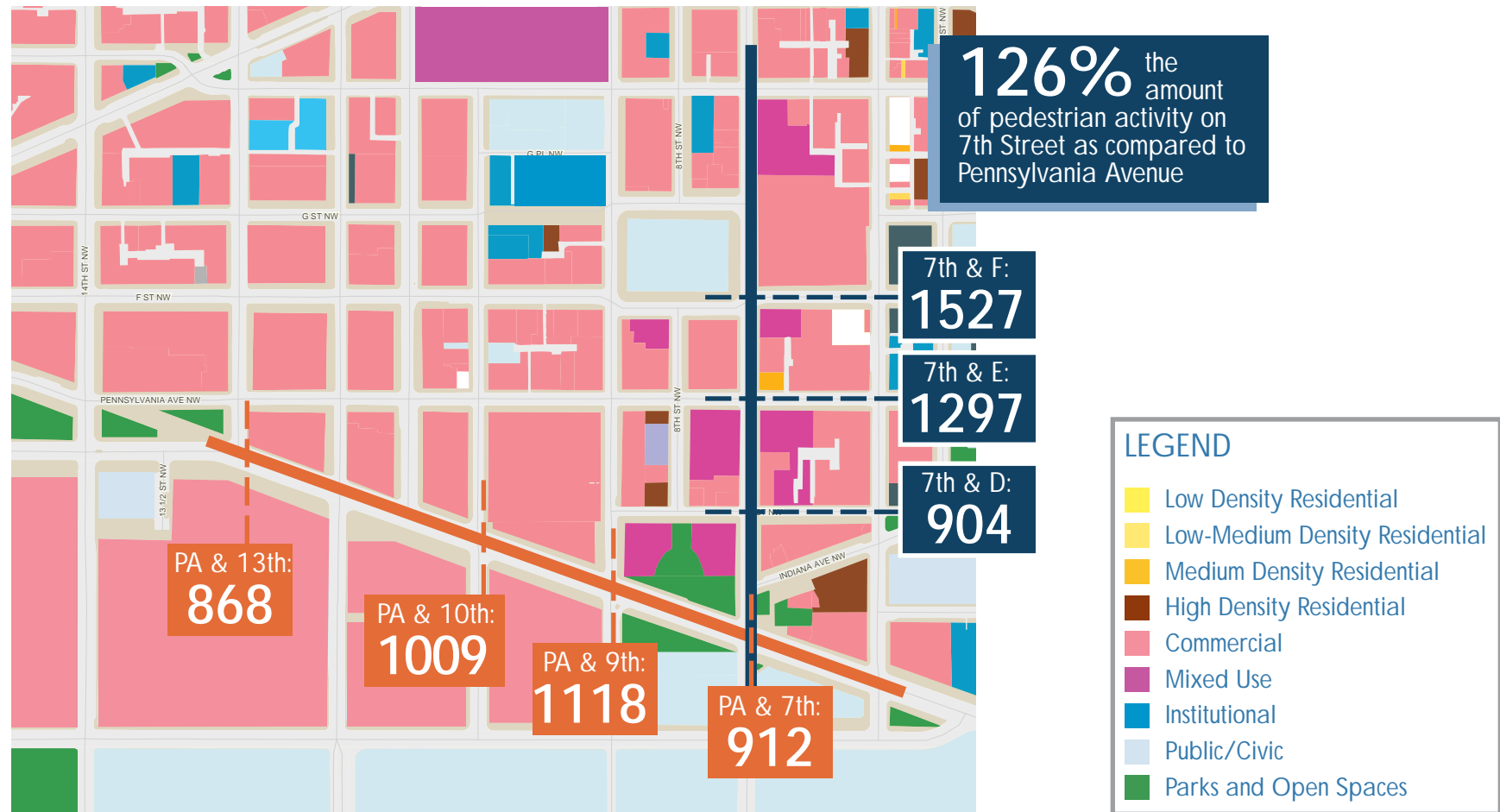
* **Source:** DC Office of Planning, Existing Land Use Map, 2005 (modified to reflect current uses).

Inactive Ground Floors Don't Attract People

What people expereince on the ground floor of a building has been shown to have a direct relationship to pedestrian behavior and choice: whether or not to spend time on the street, walking speed, distance traveled, and desire to linger. When Pennsylvania Avenue is compared with other wide streets in the District, such as Connecticut Avenue, or a great street like the Champs Elysees in Paris we see that active ground floors closely correlate with active streets.

A Comparison of Boulevard-Style Streets and Their Ground Floor Activity

PENNSYLVANIA AVE

912 peak pedestrian traffic count

Pennsylvania Ave.

12th Street · 11th Street · 10th Street · 9th Street

CONNECTICUT AVE

4833 peak pedestrian traffic count

Connecticut Ave. NW.

18th Street · M Street · Jefferson Pl.

CHAMPS ÉLYSEÉS

8,000 * peak pedestrian traffic count

Champs-Elysees.

Rue de Bassano · Avenue George V · Rue Washington · Rue Quetin-Bauchart · Rue Lincoln · Rue Pierre Charron

* estimated average hourly count per block based on Gehl Studios preliminary data.

Design Challenge 2:
ENGAGING FACADES

How do we renovate/retrofit existing buildings to be more pedestrian friendly?

NATIONAL PLACE

1201 OFFICE BLDG

HOOVER FBI BLDG

Current facade renovation projects include 1275 PA Ave, 1301 PA Ave, and Market Square. None of the projects dramatically increase the facade appeal to pedestrians.

GOV'T OFFICES

IRS BUILDING

DEPT OF JUSTICE

Stately but Boring Facades

Based on Jan Gehl's facade categorization methods as noted in *Cities for People,* this section of Pennsylvania Avenue would be rated "D - boring" due to facades with few doors and windows and minimal variation in land use. This area also has sparse detailing and lacks human scale, factors that engage pedestrians. Due to security factors, many of the building faces are 15'-20' away from the pedestrian. Though many facades have windows on the first floor, they are almost all opaque, not allowing the viewer to see into the building or to activate the pedestrian experience.

A - active
Small units, many doors
Large variation in function
No blind and few passive units
Lots of character in facade relief
Good details and materials

B - friendly
Relatively small units
Some variation in function
Few blind and passive units
Facade relief
Many details

C - mixture
Large and small units
Modest variation in function
Some blind and passive units
Modest facade relief
Few details

D - boring
Large units, few doors
Almost no variation in function
Many blind or uninteresting units
Few or no details

"D"
facade rating based on Gehl's pedestrian engagement criteria

E - inactive
Large units, few or no doors
No visible variation in function
Blind or passive units
Uniform facades, no details
Nothing to look at

Source: Gehl, Jan. *Cities for People*. Washington, DC: Island, 2010. 104-05.


PENNSYLVANIA AVENUE

CONNECTICUT AVE

CHAMPS-ÉLYSÉES

Boulevard Facades Need Variety and Complexity

When comparing Pennsylvania Avenue to two similar streets within the "boulevard" type, Pennsylvania Avenue falls short on certain metrics, a telling assessment of how the facade wall lacks vibrancy. The buildings on Pennsylvania Avenue are two to three times as wide as those on Connecticut Avenue between K and M Streets NW, and along the Champs Elysees. Doors and windows provide visual interest and engagement with the pedestrian; the Pennsylvania Avenue corridor has far fewer openings in the facade than the comparison streets. In the colors used on building facades, successful pedestrian streets employ twice as many colors on building faces than Pennsylvania Avenue.
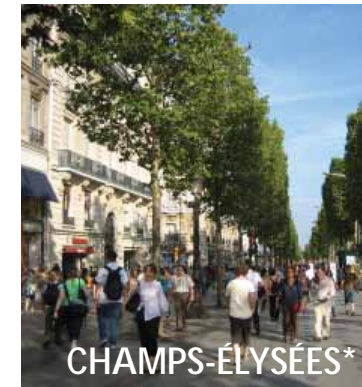
Facade Metrics
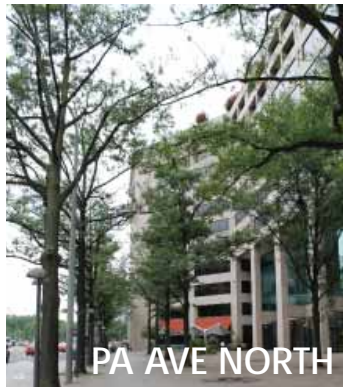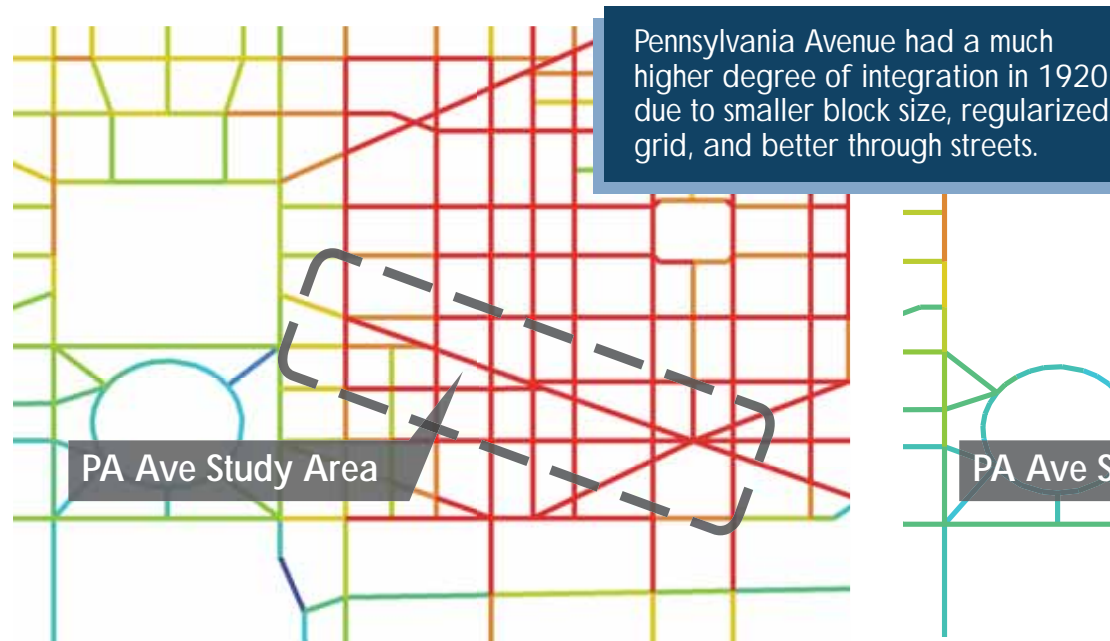

	PA AVE NORTH	PA AVE SOUTH	CONNECTICUT AVE*	CHAMPS-ÉLYSÉES*
Average bldg facade width	258 ft	288 ft	100 ft	89 ft
Average # of doors per block face	2	4	10	21
Percent ground floor windows	40%	20%	75%	80%
Average # of colors on facade	2	1	4	3

Large Blocks Reduce Pedestrian Activity

From 1920 to the present, the size of the buildings and the blocks along Pennsylvania Avenue has shifted from small storefronts and block sizes to the superblocks noticable at Federal Triangle. This increase in block size has dramatically reduced the connectivity for pedestrians and made Pennsylvania Avenue more of a barrier and an edge than the key connector it once was.

## Spatial Analysis of the Integration of the Pedestrian Street Grid in 1920

Spatial Analysis of the Integration of the Pedestrian Street Grid 2016

Pennsylvania Avenue had a much higher degree of integration in 1920 due to smaller block size, regularized grid, and better through streets.

PA Ave Study Area

PA Ave Study Area

INTEGRATION:
A measure of distance from any space of origin to all others in a system. In general, it calculates how accessible the origin space is to all other spaces, and can be seen as predictor for how active and busy a street will be.
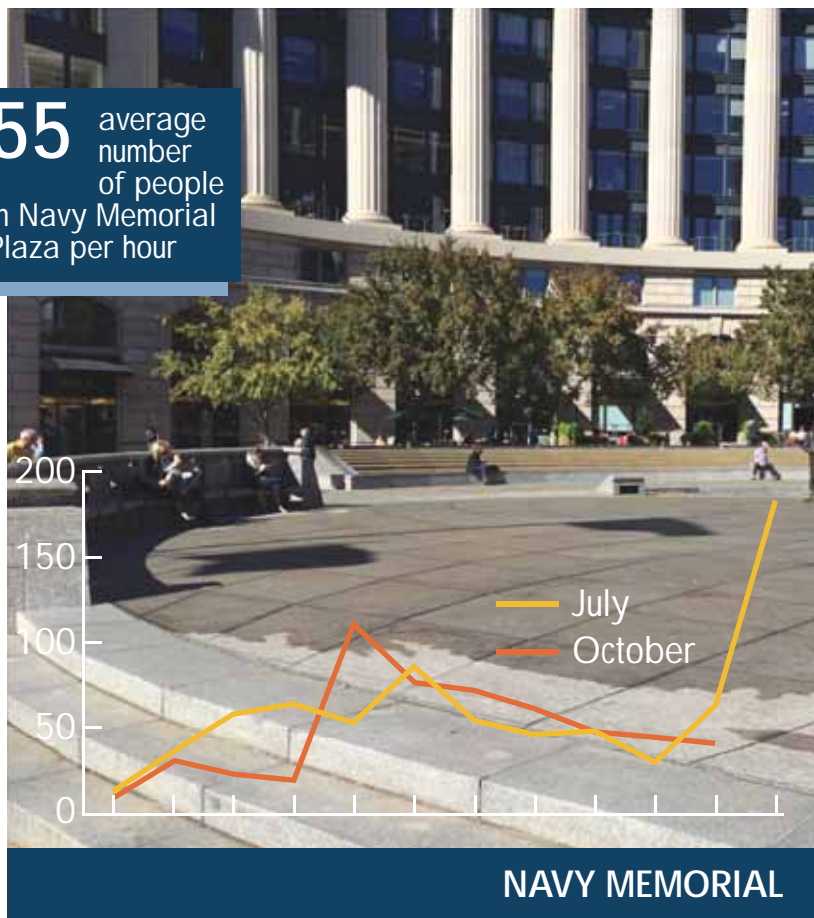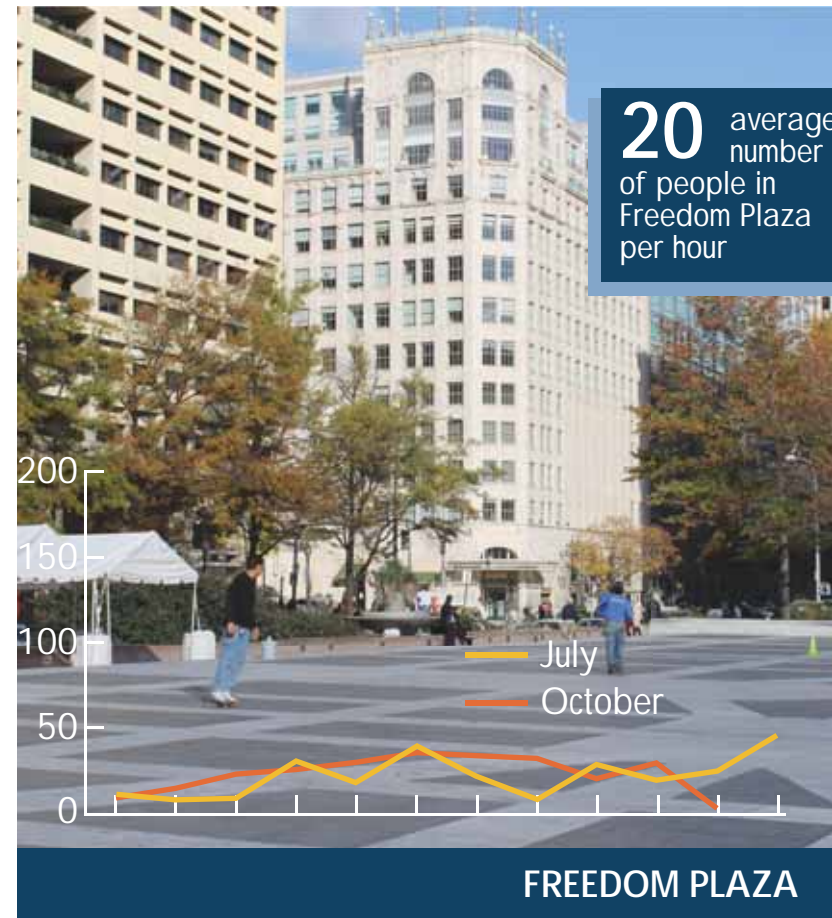
LEGEND

High Integration

Low Integration
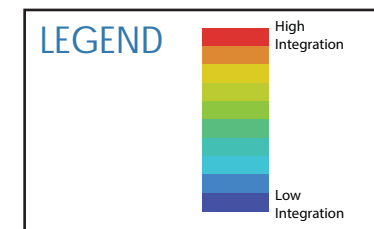
How do we activate the plazas to encourage greater use and enjoyment?

Navy Memorial and Freedom Plaza are Underutilized Public Spaces

**55** average number of people in Navy Memorial Plaza per hour

20 average number of people in Freedom Plaza per hour

July
October

NAVY MEMORIAL

July
October

FREEDOM PLAZA

Failing to Measure Up Against Other Downtown Gathering Spaces

While the Navy Memorial Plaza and Freedom Plaza provide needed gathering space for the pedestrians along Pennsylvania Avenue, a comparison of their use with other spaces downtown reveals that the plazas are dramatically underperforming for their location. As compared to Franklin Park and Farragut Square on a typical Friday between 12-1pm, both Navy Memorial and Freedom Plaza had significantly fewer people utilizing the space. Neither Franklin Park nor Farragut Square have specially programmed uses, however, they do host occasional events, are surrounded by high-density commerical uses, are proximal to transit, and have high areas of open lawn and numerous shade trees.

Public Space Characteristics
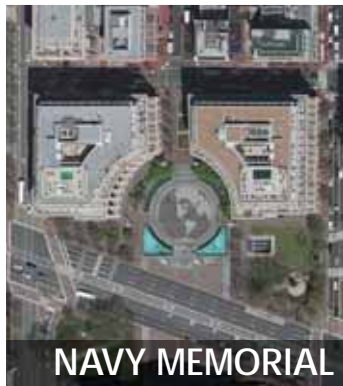
	NAVY MEMORIAL	FREEDOM PLAZA	FRANKLIN PARK	FARRAGUT SQ
Approximate Size (acres)	2.05	2.16	4.79	1.40
% open lawn area	20%	5%	90%	80%
# of people per acre (F 12-1pm)	43*	14*	56*	200*
% of seats in shaded areas	10%	10%	80%	50%

*stationary activity counts for a typical Friday in July 2015 from 12pm-1pm. Farragut Square count conducted during Farragut Fridays, a planned event hosted by the Golden Triangle BID from May through September.

Plazas Where Few Socialize or Linger

Unlike other spaces downtown or throughout the District, the two plazas at either end of the study area do not encourage people to stay, linger and chat with friends. At Franklin Park, groups of two or more were observed staying for almost 30 minutes on average, while the typical time for someone to stay at Navy Memorial or Freedom Plaza was approximately just over 15 minutes and they tended to be by themselves. These plazas are an excellent opportunity to enhance open space offerings in Downtown and provide people with attractive and interesting places to spend time.

Time-lapse Mapping

LEGEND

● one dot represents one person

darker color represents staying for longer period of time


NAVY MEMORIAL

FRANKLIN PARK (EAST LAWN)
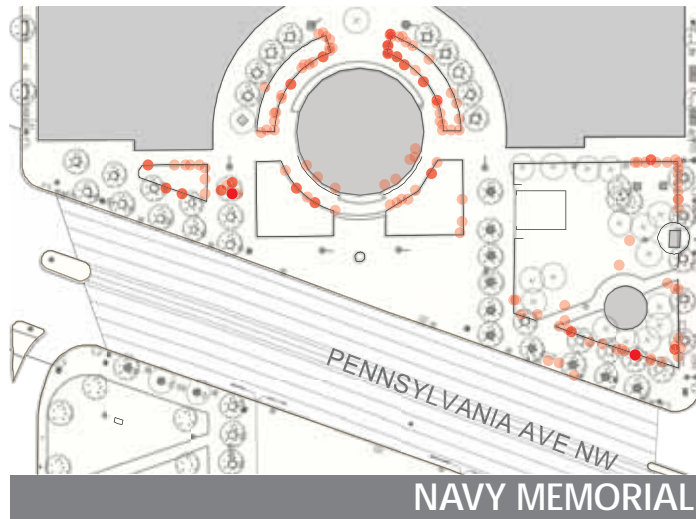
	NAVY MEMORIAL	FRANKLIN PARK (EAST LAWN)
# of people per acre (F 12-1pm)	43	56
average time spent	18 minutes	29 minutes
average group size	2.5 persons	3.2 persons
ratio of singles to people in groups	1:1	1:2

Great Placemaking Can Overcome Limited Access

People enjoy the National Gallery of Art Sculpture Garden in every season and in all types of weather. The abundant seating in both sun and shade, interesting artwork, central water feature, and programmed events provide a variety of reasons for downtown residents and workers to walk a significant distance to visit and linger. In comparison, the Navy Memorial and Freedom Plazas are predominantly hardscaped, lack healthy trees and abundant shade, and have significantly fewer pieces of public art.

Public Space Characteristics

SCULPTURE GARDEN

NAVY MEMORIAL

FREEDOM PLAZA
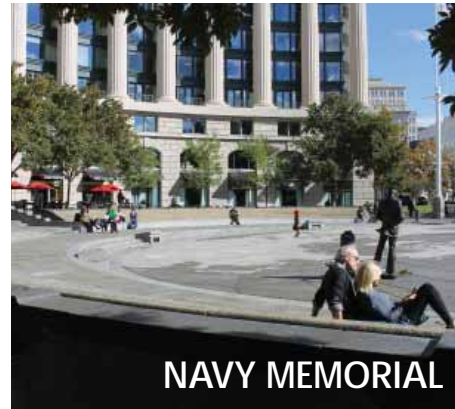
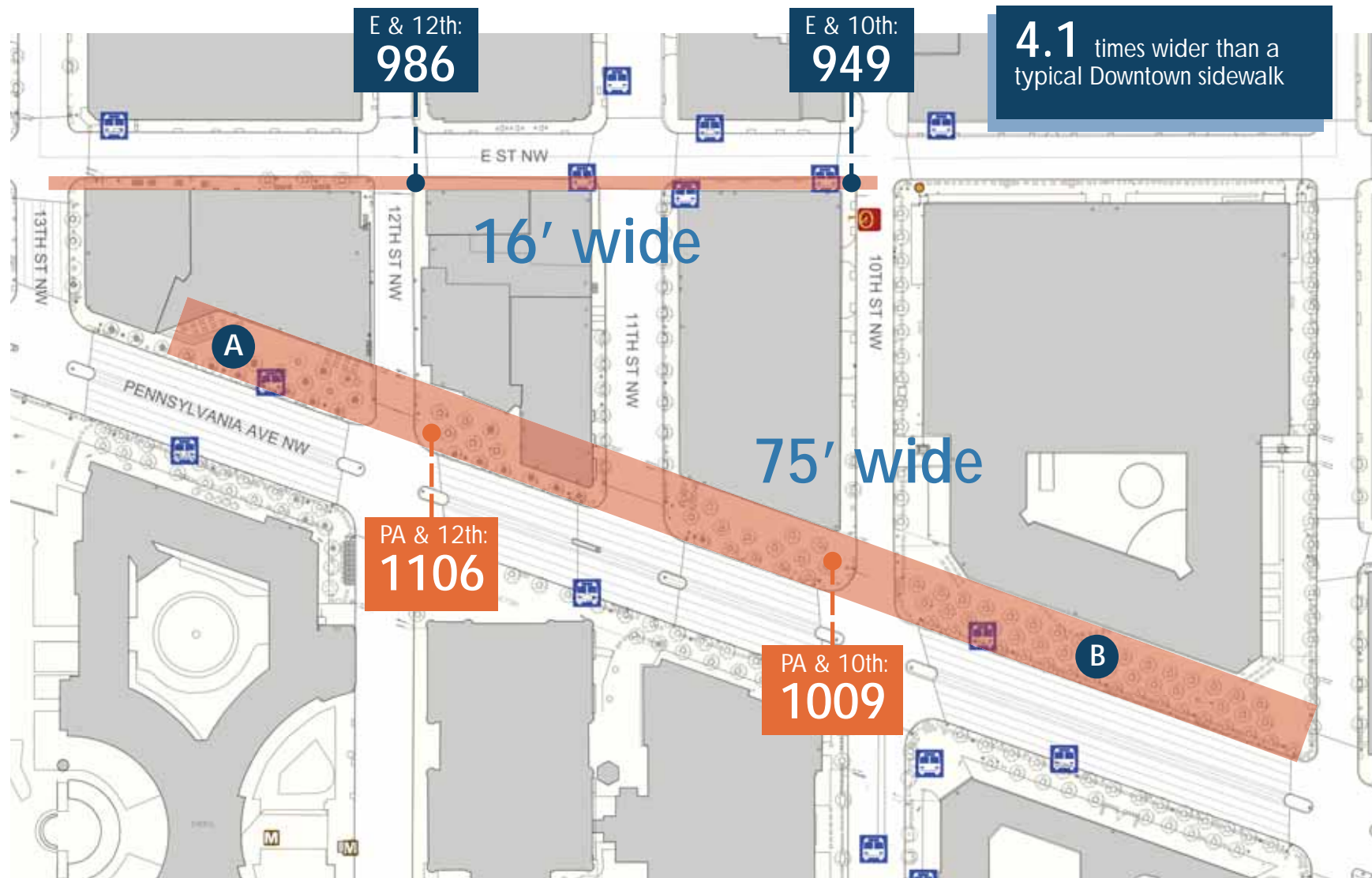|	SCULPTURE GARDEN	NAVY MEMORIAL	FREEDOM PLAZA
Enclosure & Edge	enclosed on all sides space arranged in "rooms"	enclosed on one side space is predominantly open	no enclosure space is wide open and raised
Metro Access	.25 miles	Metro within the space	.1 miles
Seating	many types mix of shade/sun	ledge seating or private cafe mostly sun	ledge seating only mostly sun
Green Space	well maintained signature fountain	inaccessible pleseant water feature	none water feature is inoperable

How do we make the sidewalks more human-scaled?

Current Sidewalks Do Not Provide a Sense of Intimacy or Enclosure

unused pedestrian zone

A. 1201 PA AVE SIDEWALK

unused pedestrian zone

B. SIDEWALK IN FRONT OF FBI

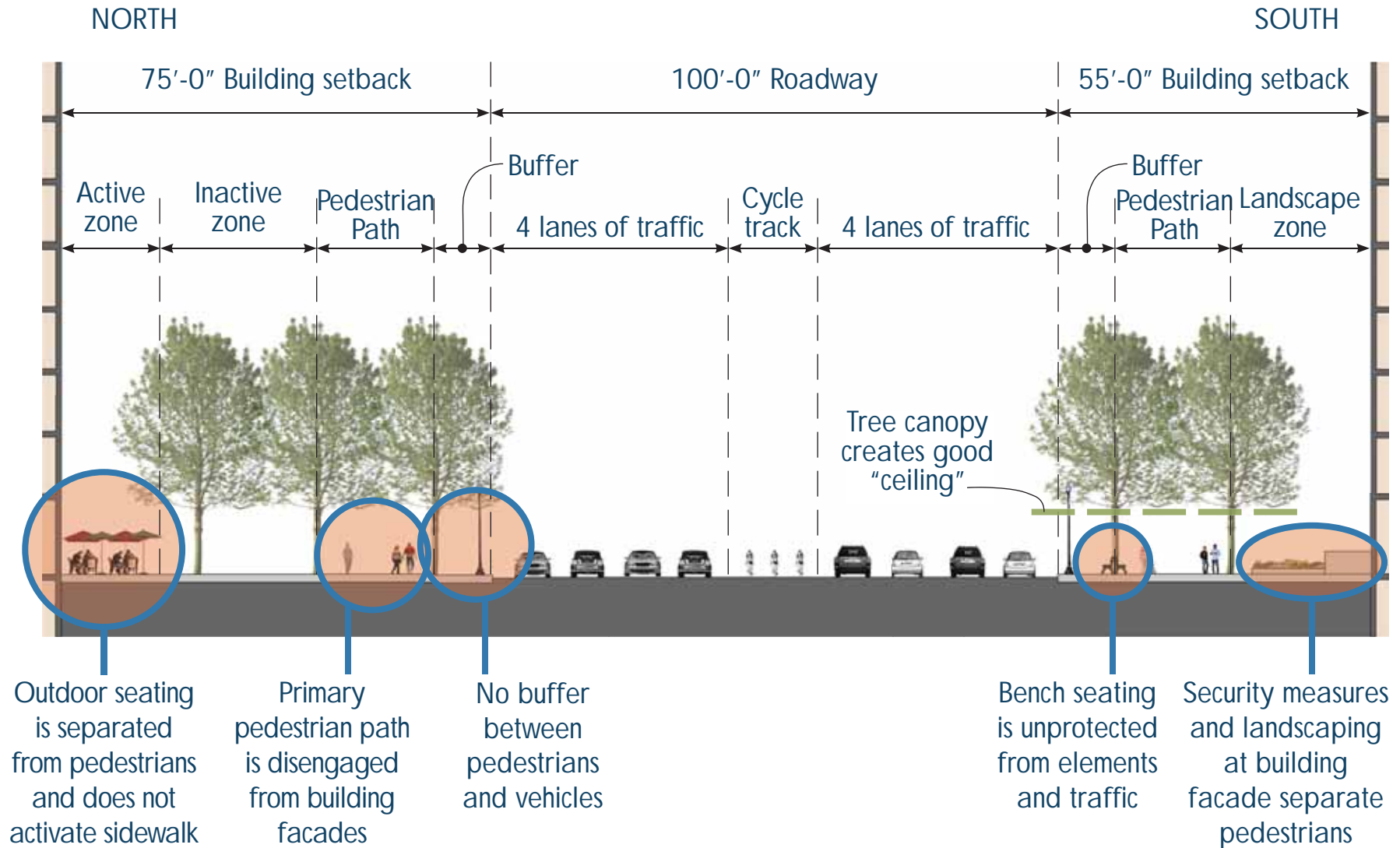# Sidewalks are Oversized for the Amount of Pedestrians

The PADC plan for widening the north sidewalk to 75' anticipated large crowds of pedestrians that never materialized. The current pedestrian volumes are well within the capacity of a typical 16' to 20' downtown sidewalk.

E & 12th:
986

E & 10th:
949

4.1 times wider than a typical Downtown sidewalk

E ST NW

16' wide

75' wide

PENNSYLVANIA AVE NW

PA & 12th:
1106

PA & 10th:
1009

A

B

13TH ST NW   12TH ST NW   11TH ST NW   10TH ST NW

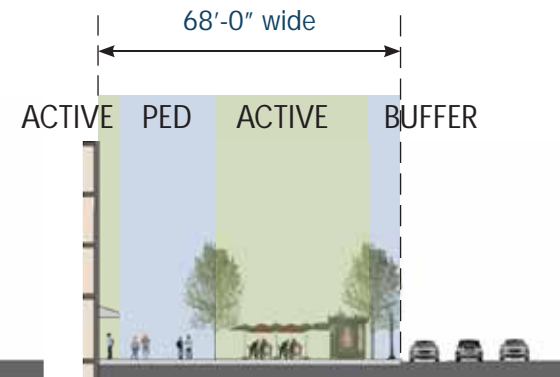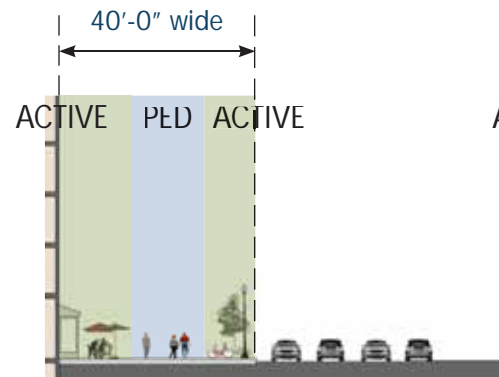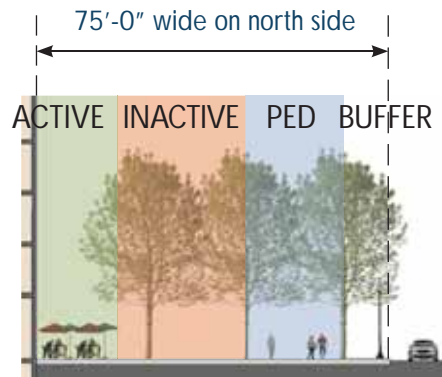# Pedestrian Space Lacks Enclosure or Definition

The scale of Pennsylvania Avenue is well defined by multiple rows of street trees, but the wide sidewalk width is undifferentiated and exposes pedestrians to loud traffic noise and wind. This is primarily a result of lacking a buffer at the curb edge from high speed traffic, and a strong sense of engagement/enclosure from the adjacent buildings.

NORTH

SOUTH

75'-0" Building setback

100'-0" Roadway

55'-0" Building setback

Active zone

Inactive zone

Pedestrian Path

Buffer

4 lanes of traffic

Cycle track

4 lanes of traffic

Buffer

Pedestrian Path

Landscape zone

Tree canopy creates good "ceiling"

Outdoor seating is separated from pedestrians and does not activate sidewalk

Primary pedestrian path is disengaged from building facades

No buffer between pedestrians and vehicles

Bench seating is unprotected from elements and traffic

Security measures and landscaping at building facade separate pedestrians

Programmed Wide Sidewalks Can Engage the Pedestrian

The sidewalks on 19th Street NW and on Champs Élyseés are generous in proportion. But as compared to those on Pennsylvania Avenue, those two streets are organized in structures that activate the sidewalk and both protect and engage the pedestrian.

Organization of the Boulevard Streetscape

75'-0" wide on north side	40'-0" wide	68'-0" wide
ACTIVE INACTIVE PED BUFFER	ACTIVE PED ACTIVE	ACTIVE PED ACTIVE BUFFER

PENNSYLVANIA AVE

The sidewalks on PA Ave separate the pedestrian from buildings creating a dead zone at the building face, and do not provide a sufficient buffer at the curb from the noise and traffic.

19th STREET NW

On 19th Street pedestrians are engaged with the buildings through cafes or storefronts, and the street edge is occupied with other uses such as seating and bikeshare stations.
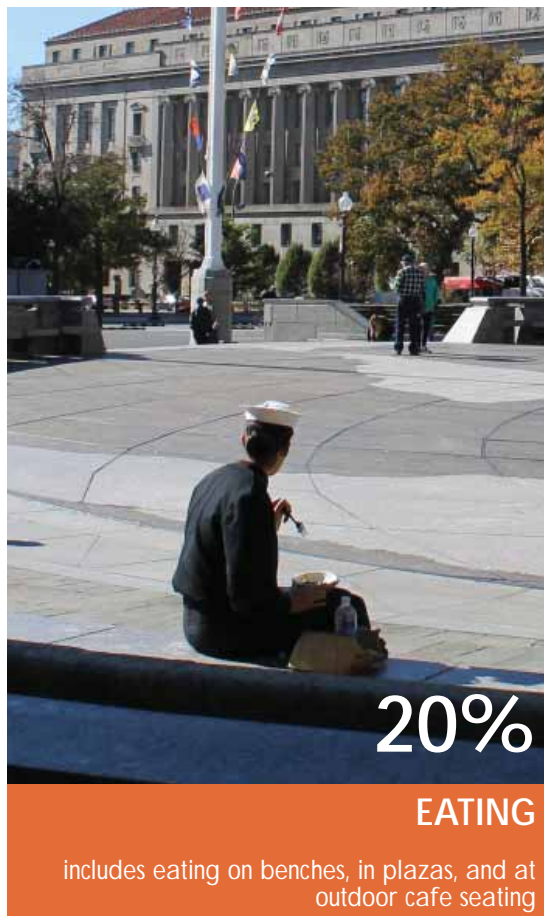

CHAMPS ÉLYSEÉS

Along the Champs Élyseés, two rows of trees create an active zone along the street edge with kiosks and cafe seating, an engaged building facade zone, and a walking zone between.

What is the Pennsylvania Avenue experience?

Top Three Activities Observed on Pennsylvania Avenue

20%

EATING

includes eating on benches, in plazas, and at outdoor cafe seating

18%

WAITING FOR TRANSIT

includes waiting in bus shelters and on sidewalks for Metrobus, Federal shuttle, taxi, etc.

8%

WORKING

includes security, construction, event set-up, and maintenance of the avenue and streetscape

Experiences of Great Streets

Great streets of the world function on many levels: as transportation corridors, retail and shopping hubs, commercial districts, parks and recreational centers, and residential spines. These European sreat streets incorporate a variety of activities at both day and night, for both leisure and business, and for residents, workers, and tourists.

Day Functions

Night Functions

CHAMPS ÉLYSEÉS
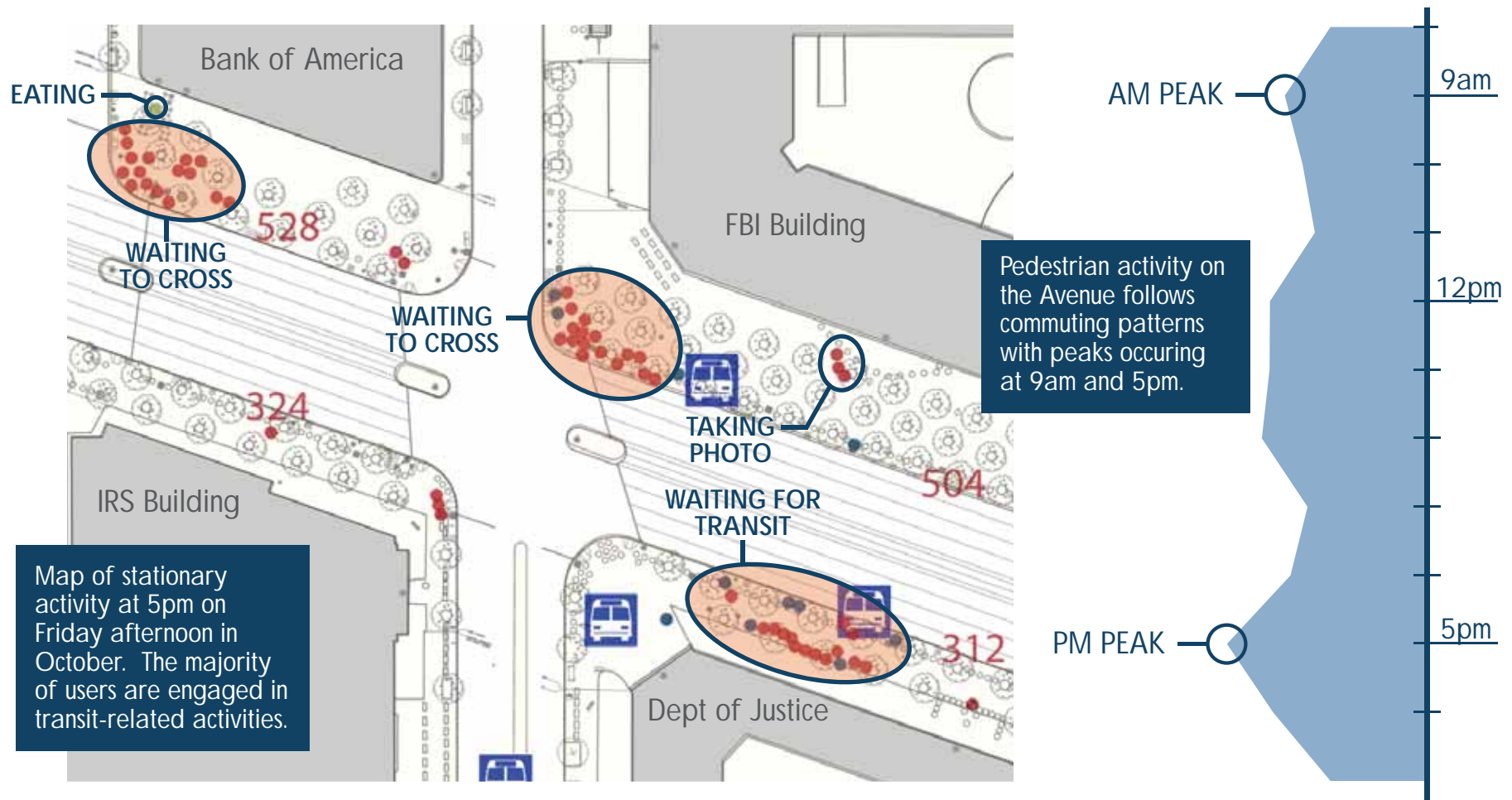
RINGSTRASSE

PASSEIG DE GRACIA

| Primary Experience | premier shopping street | elegant promenade and civic space | commercial and cultural center |

A Focus on Transit-Related Pedestrian Activity

The vast majority of stationary activities observed on Pennsylvania Avenue involved transportation-related waiting. This was particularly apparent at the morning and evening rush hours as pedestrians used the avenue primarily to get to and from destinations. Very few lingering-type activities were observed. The map below illustrates the types of activities observed on a Friday at 5pm in October.

EATING

Bank of America

WAITING
TO CROSS

528

WAITING
TO CROSS

FBI Building

Pedestrian activity on the Avenue follows commuting patterns with peaks occuring at 9am and 5pm.

AM PEAK

9am

12pm

TAKING
PHOTO

324

IRS Building

504

WAITING FOR
TRANSIT

Map of stationary activity at 5pm on Friday afternoon in October. The majority of users are engaged in transit-related activities.

312

PM PEAK

5pm

Dept of Justice

A Focus on Necessary and Task-Oriented Activities

On a typical weekday the primary stationary activities observed along Pennsylvania Avenue were necessary or task-oriented activities that accounted for 58% of the total observed activities. This is in contrast to weekend activty when there is often a major event drawing throusands of particpants. Creating a attaractive everday experience will help make Pennsylvania Avenue be a destination for all days of the week.

LEGEND
- Recreation/Pleasurable
- Eating
- Transportation Related
- Working/Task Related
- Anti-Social Behavior

Observed Activities

5%

22%

15%

20%

38%
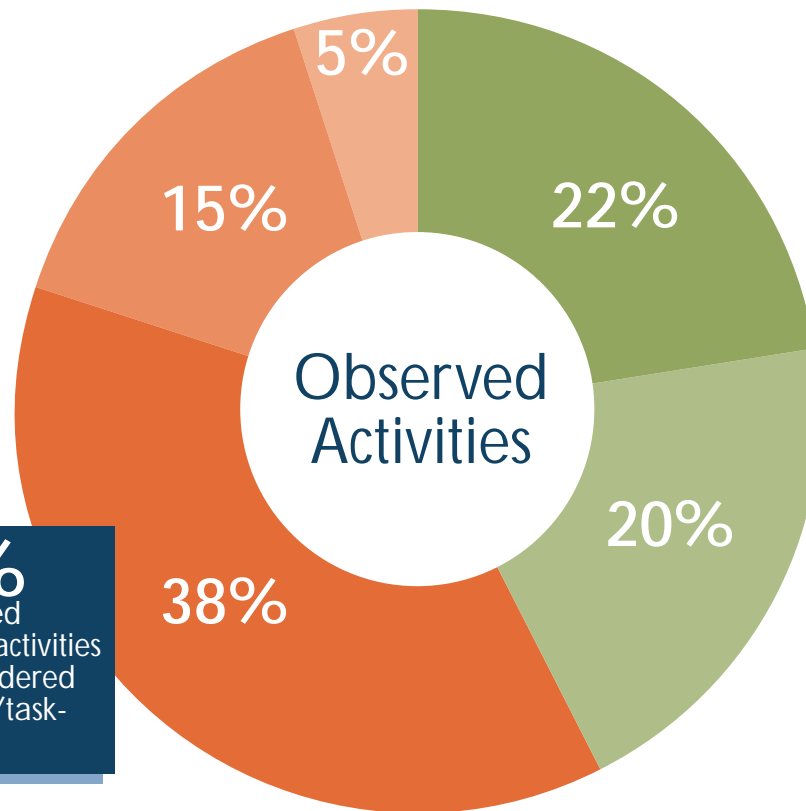
58%
of observed weekday activities were considered necessary/task-oriented

* average for July and October data.

The transit stop in front of the Department of Justice is one of the most populated locations in the study area during the evening rush hour.

Sidewalk Cafes that Do Not Engage the Sidewalk

Many of the sidewalk cafes along Pennsylvania Avenue fail to engage the street or provide visual interest or people watching opportunities for pedestrians. One key factor is the wide sidewalks and exposure to traffic noise and wind. To compensate for the environment, many of the cafes use screening or landscaping to isolate the cafe experience from the street environment.
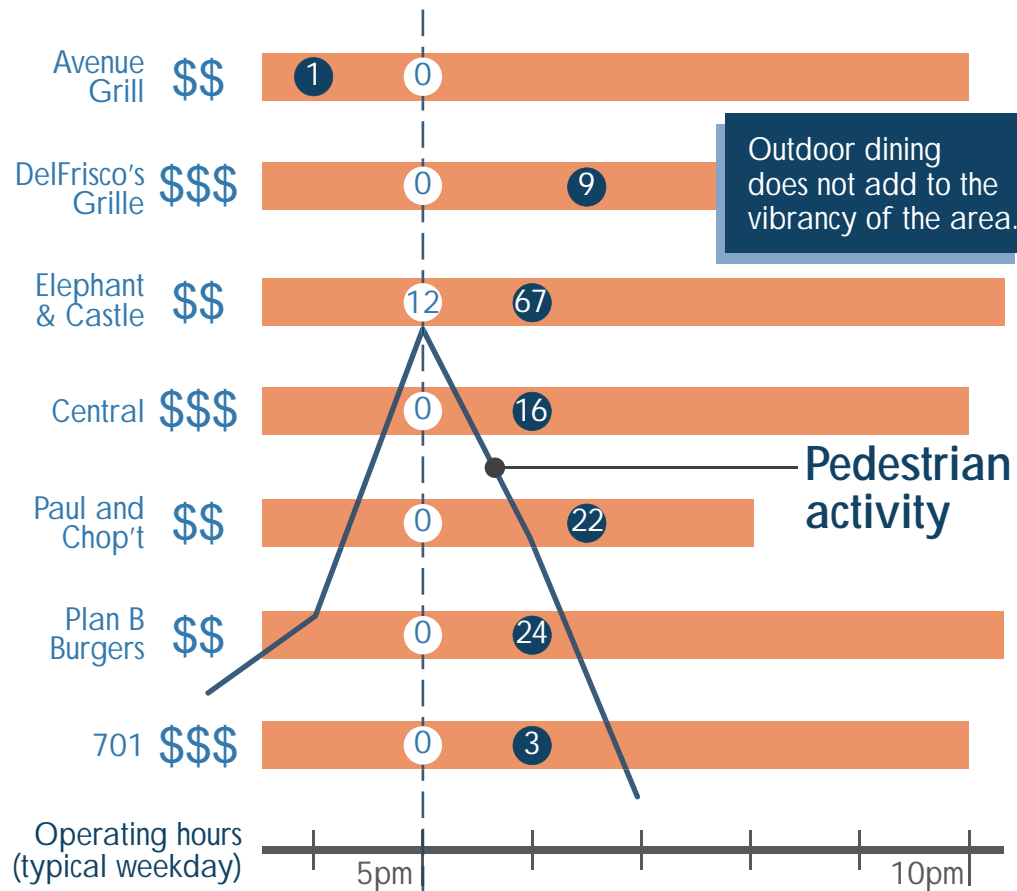
Surveyors observed almost no one using the outdoor seating at Del Frisco's.

The sidewalk cafe at Central has decent use, but would benefit from being larger

The Avenue restaurant is hidden from pedestrians within the arcade.

The sidewalk cafe at Elephant & Castle is well used but hidden from the street.
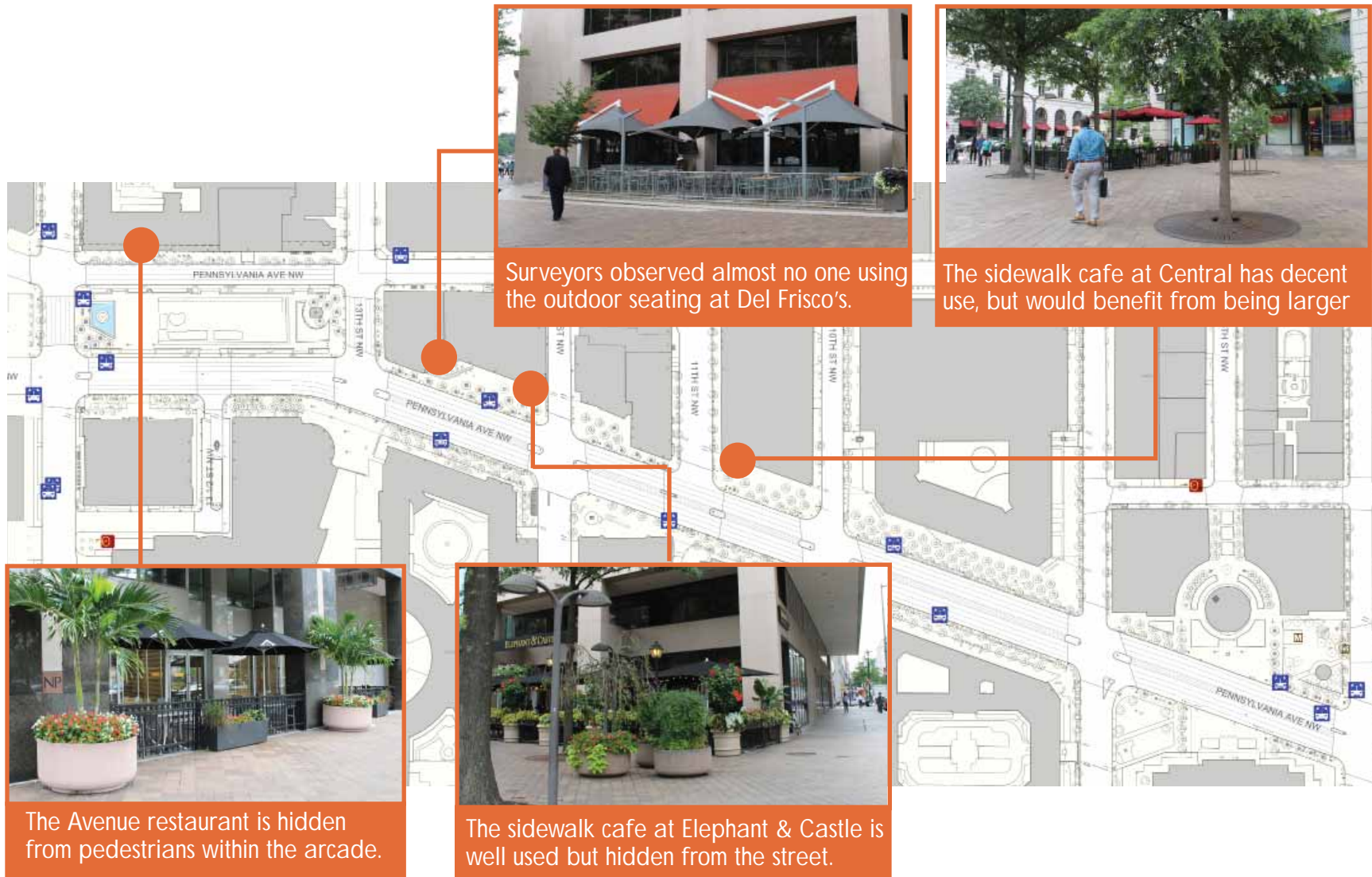
Dining Options that Do Not Add to the Public Life

Restaurants in the study area tend toward two types: take-out fast casual such as Starbucks, Paul, and Chop't and high-end table service restaurants like 701, Central Michel Richard, and Del Frisco's. As such, the eateries serve two separate clientele, local office workers for breakfast, lunch, and coffee, and destination eaters looking for fine dining. In both cases, the Avenue does not provide reasons to stay and linger either before or after a meal.

LEGEND
- (1) Outdoor diners
- (1) Peak occupancy

Restaurant		Outdoor diners	Peak occupancy
Avenue Grill	$$	1	0
DelFrisco's Grille	$$$	0	9
Elephant & Castle	$$	12	67
Central	$$$	0	16
Paul and Chop't	$$	0	22
Plan B Burgers	$$	0	24
701	$$$	0	3

Operating hours (typical weekday)

5pm — 10pm

Outdoor dining does not add to the vibrancy of the area.

Pedestrian activity

Valet parking encourages patrons to drive and park instead of walking to and from the restaurants.

Food trucks serve customers on 7th Street NW.

Many segway tours pass through the Navy Memorial Plaza.

At late afternoon in the fall, people enjoy the sun at Freedom Plaza.

People pass by a street musician during the evening rush hour outside the Archives Metro station.

PART III

NEXT STEPS

Issues to Test to Address the Design Challenges

Case Studies

Patrons enjoy the farmers' market in Woodrow Wilson Plaza on a Friday afternoon in October.

TESTING SOLUTIONS

Given the thoughtful and crafted design of Pennsylvania Avenue, making any change should be taken with a degree of caution and study. In addition, building modifications, public realm investments, and transportation changes all require significant investment and public will. To advance the dialogue and study for how to create a more vital Pennsylvania Avenue, this study proposes a methodology of light and temporary testing to measure the effects of different design solutions and the viability of new land uses. Below are five basic issues that this study proposes for further testing and study. The following pages present case studies of projects that have tested temporary solutions in public spaces to great success.

1. HOW DO WE ENCOURAGE A MIXTURE OF USES?
Test the viability for greater active ground floor uses and design solutions for appropriate placement.

2. HOW DO WE CREATE ENGAGING BUILDINGS?
Investigate strategies for scaling buildings with lighting, color fabrics, and temporary installations.

3. HOW DO WE ACTIVATE THE PLAZAS?
Develop various programming and design ideas to attract people to the spaces throughout the day.

4. HOW DO WE PROVIDE MORE INTIMATE SIDEWALKS?
Design and prototype streetscape additions to define pedestrian space and activate sidewalks.

5. HOW DO WE MAKE PA AVE A DESTINATION EXPERIENCE?
Program recreational amenities, activities and landscapes to test ideas for crerating a unique and memorable destination experience.

Case Study
MAKERS ON MARKET

Gehl Studios conducted an evaluation and analysis of the Market Street Prototyping Festival in San Francisco to connect the Festival's process and outcomes with the urban design goals of the Better Market Street Project, and festival funders' goal of promoting diverse, integrated public spaces that support civic life.

WHY PROTOTYPING?

prototyping
[proh-tuh-tahyping]
to create, test and try an experimental model of a new idea or object.

Prototyping public space is a way of involving a range of stakeholders in generating many potential solutions to a physical design challenge in a temporary sitting. When done using an inclusive process, it involves the public in a direct and tangible manner into the physical planning process. **Prototyping** potential solutions to a design challenge can show the public the many potential ways that a public space can be transformed, and lets them experience those possibilities in real life.

Good reasons to prototype:

Shorten the distance between citizen and decision-maker, thereby creating more productive and meaningful form of citizen engagement
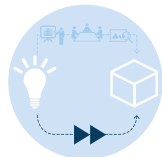
Shorten the distance between idea and implementation

☐ 25% Public Realm
☐ 75% Buildings
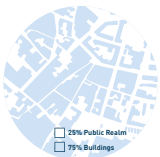
Unlock the potential of civic assets of people and place

Envision the unimaginable
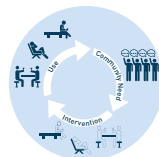
Create a feedback loop between – community need, intervention, and use

ACTIVITIES BRING PEOPLE TOGETHER

Most prototypes were approachable and engaging. The playful atmosphere made it easy for children, families and people to interact with games, play structures, educational workshops and activities. The invitation to experience Market Street as a series of spectacles proved to be engaging and dynamic, with a sense of discovery.

Here are some examples of street elements that can foster conviviality and casual encounters among people from a range of backgrounds.

INTERACTIVE FOUNTAINS

STREET FURNISHINGS THAT CONVEY A SENSE OF PLAYFULNESS AND HUMOR
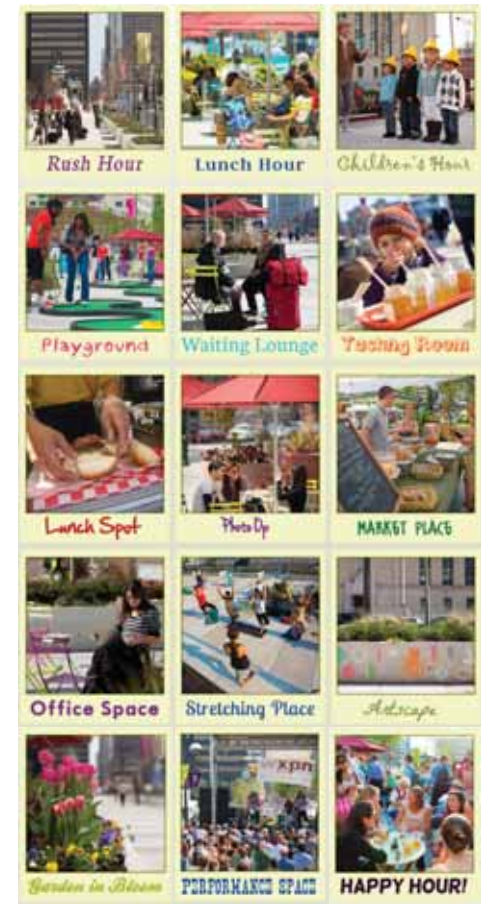
OUTDOOR PERFORMANCE SPACE

Case Study
POTENTIAL OF THE PORCH

Using an "iterative placemaking" approach, University City District in Philadelphia developed and tested a series of solutions for the Porch at 30th Street Station. These images, excerpted from "Realizing the Potential of the Porch," give an overview of their process and methods used.

First round of amenities deployed

Second round

UCD's approach to placemaking

The approach to placemaking at The Porch has informed a broader data-driven placemaking strategy at UCD, dubbed "iterative placemaking." Given a vast unmet need for pedestrian amenities and a fiscal climate that restricts public funding for large capital-intensive public space projects, UCD has worked to:

1 **IDENTIFY** needs by analyzing demand
2 **EXPERIMENT** with economical and/or temporary improvements
3 **EVALUATE** use
4 **ITERATE**, making additions and modifications as necessary

In devising this approach, UCD has been inspired by examples of new public spaces in other cities that have been developed by taking small, iterative, and experimental steps, called Lighter Quicker Cheaper by the Project for Public Spaces, and has gained a great deal of experience managing and stewarding multiple public spaces. This strategy has been used with UCD's parklet program and with its pedestrian plaza projects, both partnerships with the Mayor's Office of Transportation and Utilities. It has also been used to make small changes at The Porch. During the course of the 2012 season, UCD added lounge chairs, additional planters, and temporary art installations; the effects of these small modifications on user behavior were closely monitored.

Rush Hour | Lunch Hour | Children's Hour
Playground | Waiting Lounge | Tasting Room
Lunch Spot | Photo Op | MARKET PLACE
Office Space | Stretching Place | Artscape
Garden in Bloom | PERFORMANCE SPACE | HAPPY HOUR!

APPENDIX

COLLECTED DATA

Evaluation Methods

Data Collected from July and October Site Visits

EVALUATION METHODS

A pedestrian life study documents, measures, and quantifies the various aspects of the pedestrian experience of the street. This methodology was originated by William H. Whyte and Jan Gehl in the 1970s as they independently researched the qualities that contributed to the functionality and popularity of public spaces. In recent years, Gehl's methods have become the standards for observing and analyzing these places and how people move through and within them.

PEDESTRIAN COUNTS

We physically counted the number of pedestrians on each block over an 11-hour period on two separate days, July 7th, and October 30th, 2015. On the second occasion we also cataloged the direction of travel for each person.

STATIONARY MAPPING

We mapped the locations and types of activities for people as they stopped along the Avenue and at each plaza. Categorized activities included both general (sitting, standing, laying down) and detailed (smoking, eating, waiting for transit).

PERCEPTION ANALYSIS

We analyzed the streetscape to determine the character of the built environment. A statistical method developed at the University of Maryland proved to be unreliable. We primarily used Jan Gehl's quality-based methods.

RESTAURANT REVIEWS

We used Washington Post and Yelp reviews to determine the desirability and diner satisfaction of the eating establishments within the study area. *Note: Native Foods Cafe was open during both site visits, but closed in December 2015.*

STUDY AREA OVERVIEW

The map below outlines the study are and the block naming conventions used throughout the study.
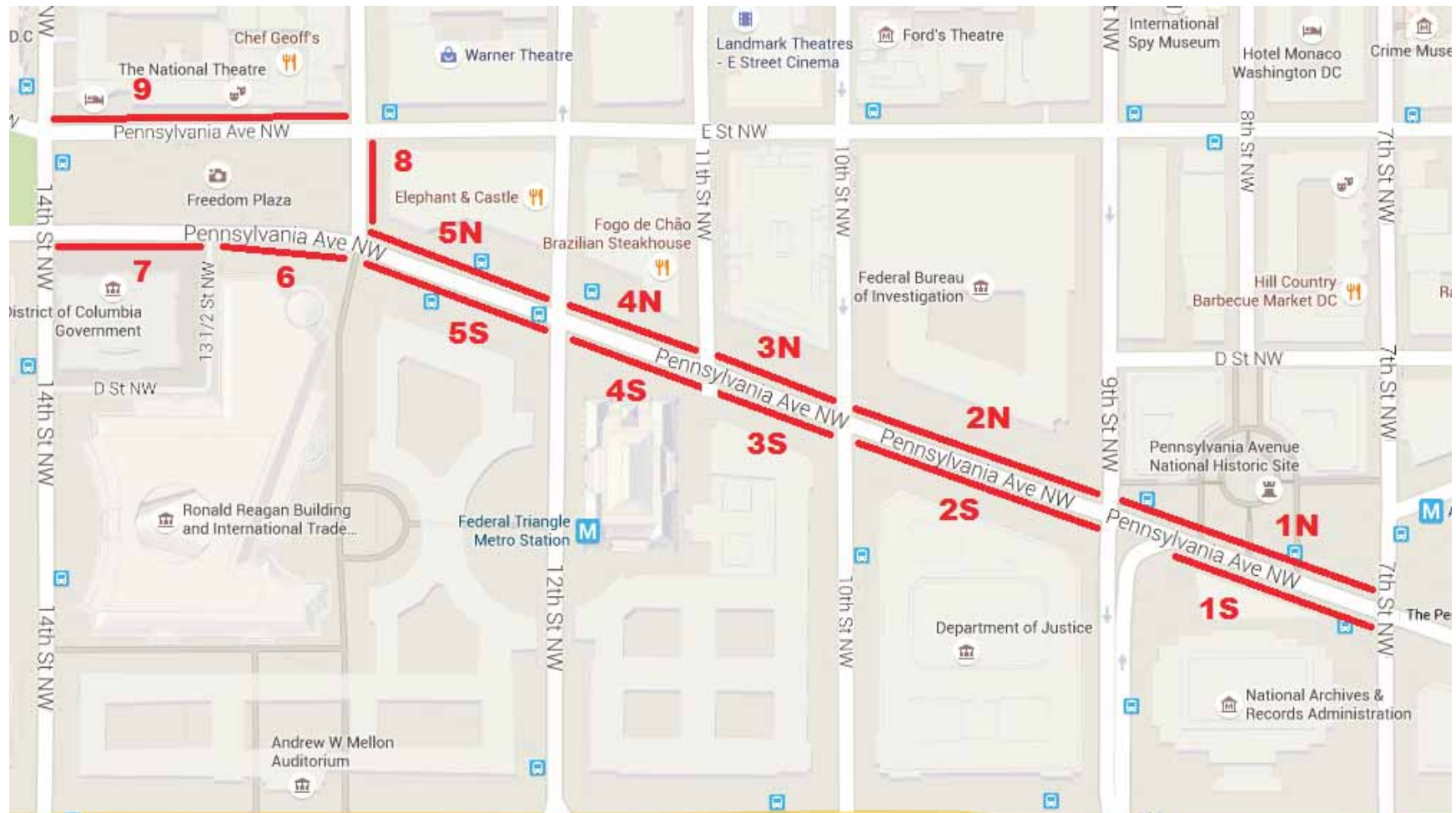
PEDESTRIAN COUNTS

Comparison Graph - July and October Pedestrian Counts
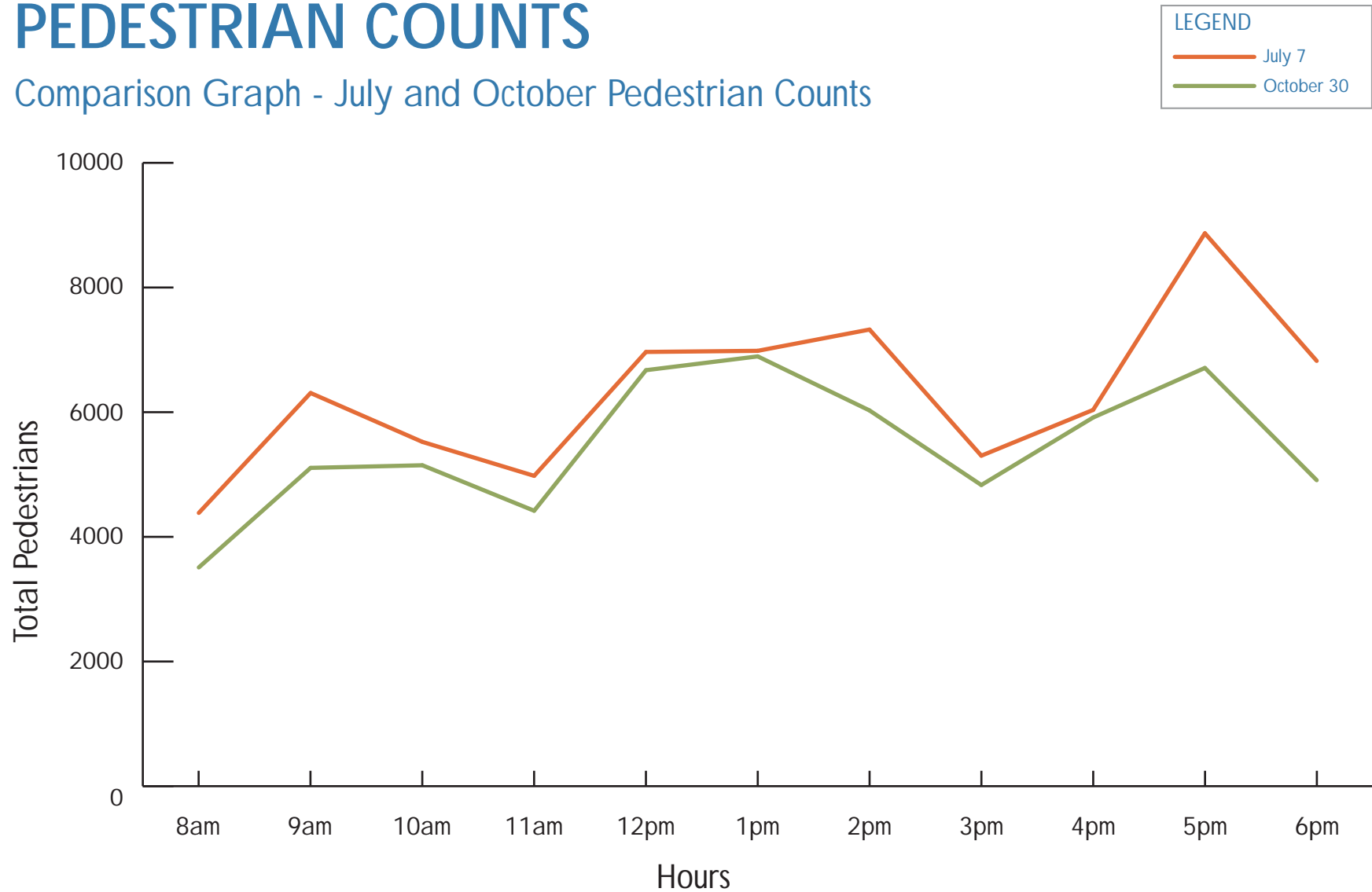
	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm
July	4278	6306	5520	4974	6966	6984	7326	5298	6034	8874	6822
October	3504	5106	5148	4416	6678	6900	6030	4830	5916	6714	4908

Pedestrian Count Data by Block per Hour

Tuesday, July 7, 2015

Side	Block	Pedestrians/Hour												Total	Average
		8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm		
North Side	1N	576	1086	510	342	504	510	864	582	744	1536	1026	630	8910	742.5
	2N	426	582	432	306	582	576	498	504	522	828	618	528	6402	533.5
	3N	630	630	396	528	840	702	678	528	552	978	606	270	7338	611.5
	4N	186	540	468	420	354	528	624	390	342	666	408	396	5322	443.5
	5N	192	288	288	270	282	456	510	306	276	492	504	348	4212	351.0
	8	396	618	360	258	642	306	588	138	138	618	600	348	5010	417.5
	9	270	456	504	714	570	438	582	306	378	510	498	378	5604	467.0
South Side	1S	24	174	570	300	378	642	366	396	438	420	396	138	4242	353.5
	2S	168	270	324	240	342	378	210	312	456	360	408	90	3558	296.5
	3S	270	294	270	216	414	384	300	324	408	552	294	204	3930	327.5
	4S	294	282	264	378	456	336	534	396	456	275	318	234	4224	352.0
	5S	300	204	348	180	600	786	438	390	324	420	306	252	4548	379.0
	6	282	540	432	384	534	450	690	336	390	798	414	144	5394	449.5
	7	264	342	354	438	468	492	444	390	630	420	426	318	4986	415.5
Total		4278	6306	5520	4974	6966	6984	7326	5298	6054	8874	6822	4278	73,680	
Average		285	402	385	356	497	498	497	363	408	564	446	281		438.6

Friday, October 30, 2015

Side	Block	Pedestrians/Hour												Total	Average
		8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm		
North Side	1N	372	918	1740	828	870	990	846	294	432	894	714	Not Counted	8898	808.9
	2N	456	642	492	438	666	726	660	438	516	600	600		6234	566.7
	3N	330	672	222	396	720	600	408	372	492	912	528		5652	513.8
	4N	306	294	486	354	414	576	552	456	570	504	570		5082	462.0
	5N	192	192	162	270	672	582	444	378	342	492	240		3966	360.5
	8	468	618	480	588	930	834	588	348	456	384	234		5928	538.9
	9	270	402	378	264	558	552	516	420	366	522	384		4632	421.1
South Side	1S	24	60	72	126	114	162	198	372	600	222	96		2046	186.0
	2S	168	204	162	228	204	210	138	324	204	240	84		2166	196.9
	3S	270	228	108	66	132	204	264	204	288	282	240		2286	207.8
	4S	228	222	360	126	360	360	264	288	462	612	330		3612	328.4
	5S	108	210	126	186	462	354	312	294	300	192	90		2634	239.5
	6	180	216	234	264	324	414	390	420	474	426	372		3714	337.6
	7	132	228	126	282	252	336	450	222	414	432	426		3300	300.0
Total		3504	5106	5148	4416	6678	6900	6030	4830	5916	6714	4908		60,150	
Average		241	322	262	276	447	455	399	349	422	448	323			390.6

NORTH-SOUTH COMPARISON

JULY: Pedestrian Counts for North and South Blocks
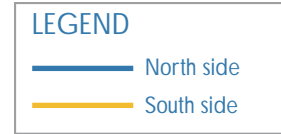
Blocks 1N and 1S
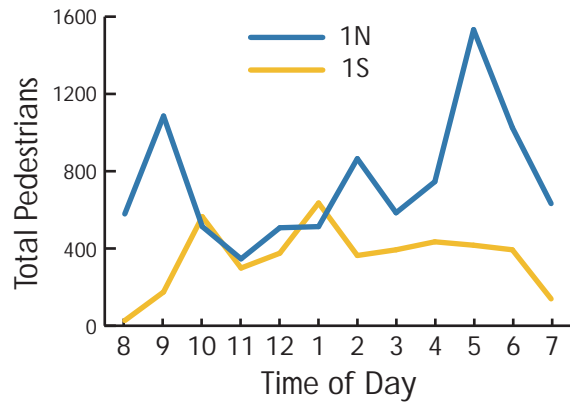
Blocks 2N and 2S
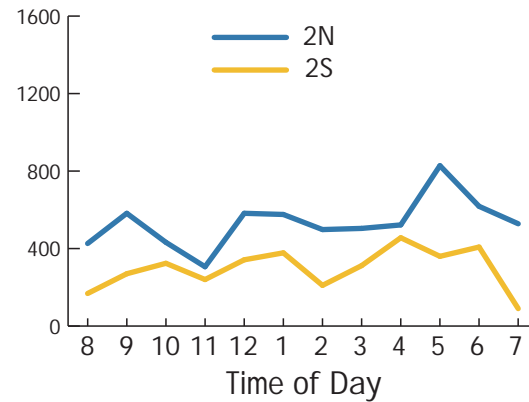
Blocks 3N and 3S
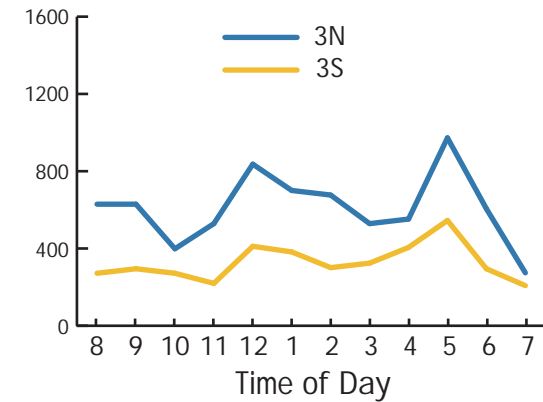
Blocks 5N and 5S
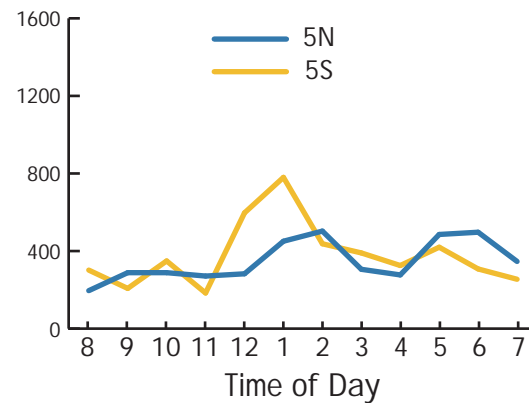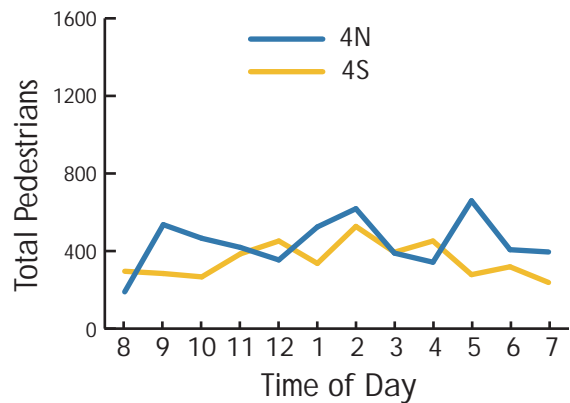
Blocks 6/7 and 9

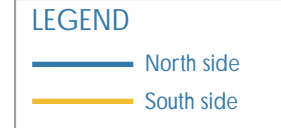OCTOBER: Pedestrian Counts for North and South Blocks

LEGEND
North side
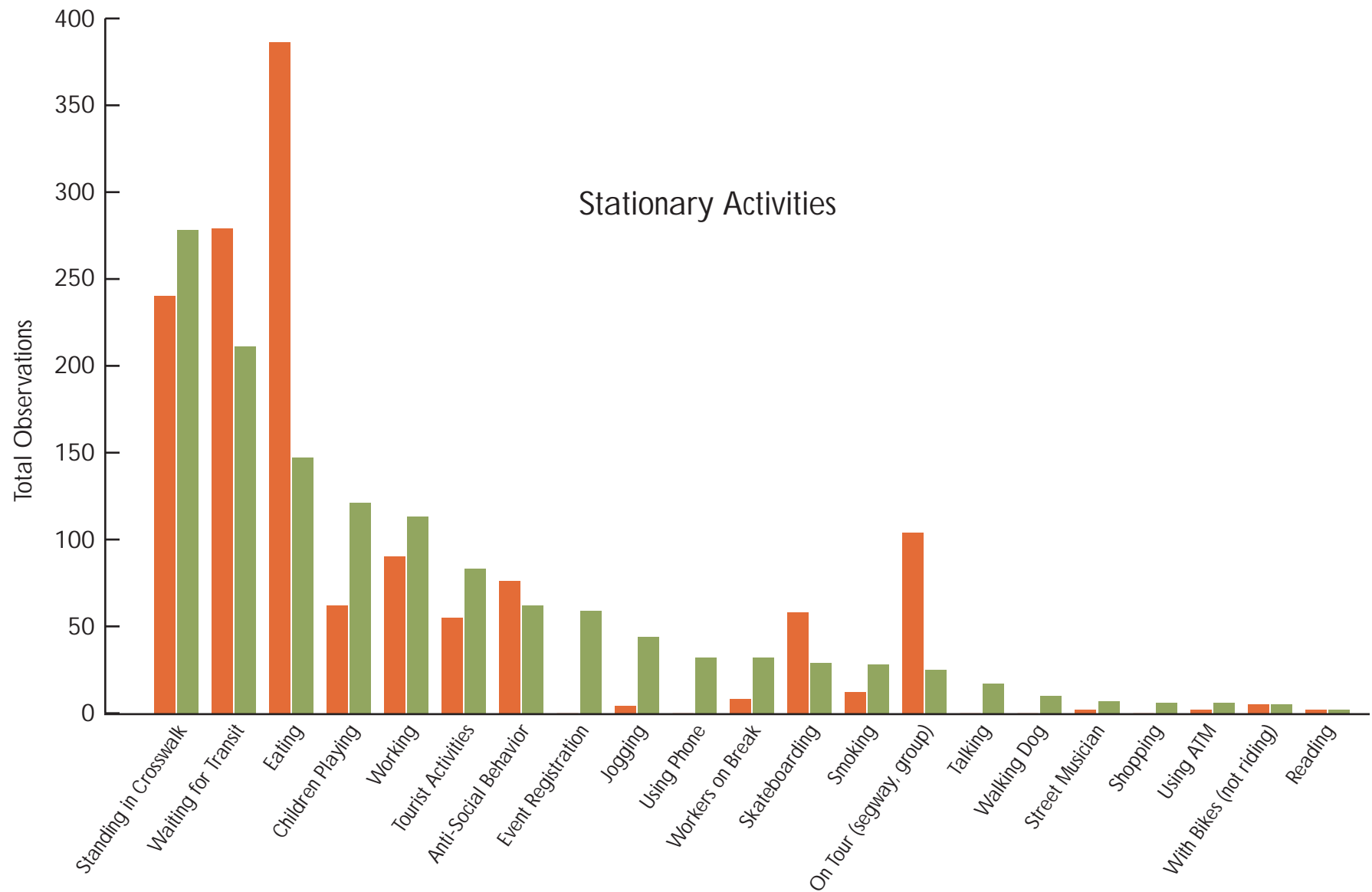South side

Blocks 1N and 1S

Blocks 2N and 2S

Blocks 3N and 3S

Blocks 4N and 4S

Blocks 5N and 5S

Blocks 6/7 and 9
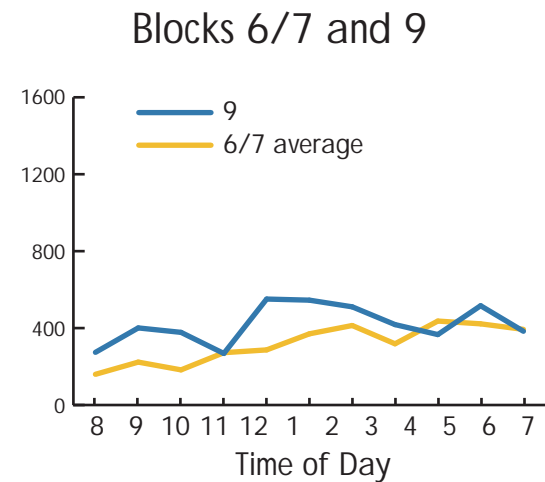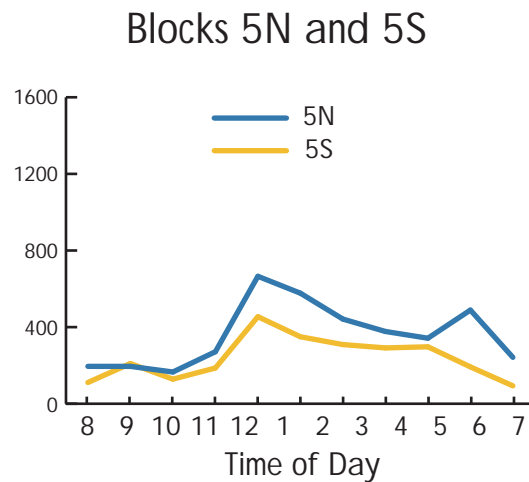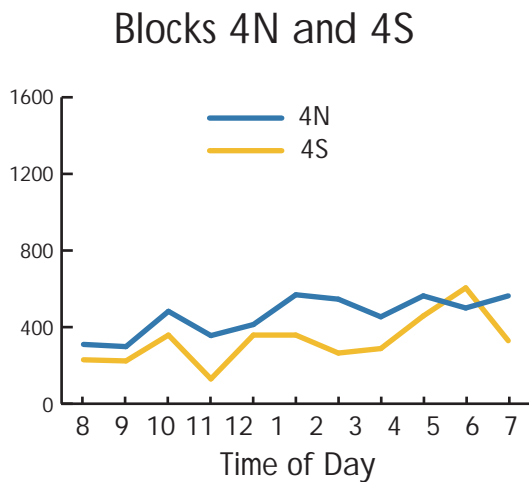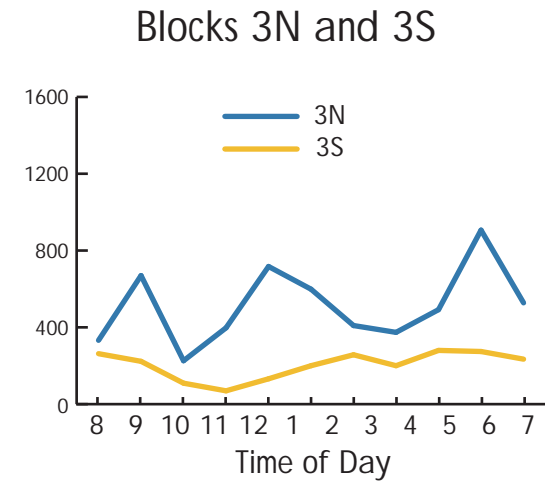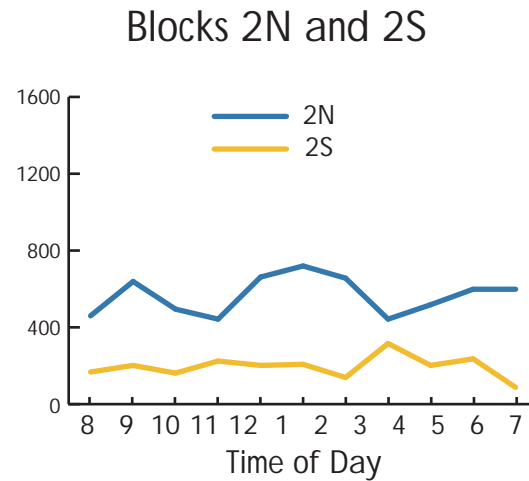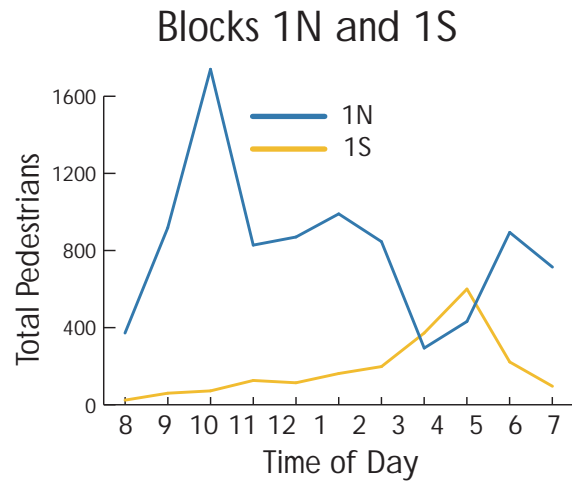
STATIONARY ACTIVITIES

Categories of Activity Observed on Pennsylvania Avenue

Pleasurable/Task-Oriented Observations

Sitting/Standing Observations
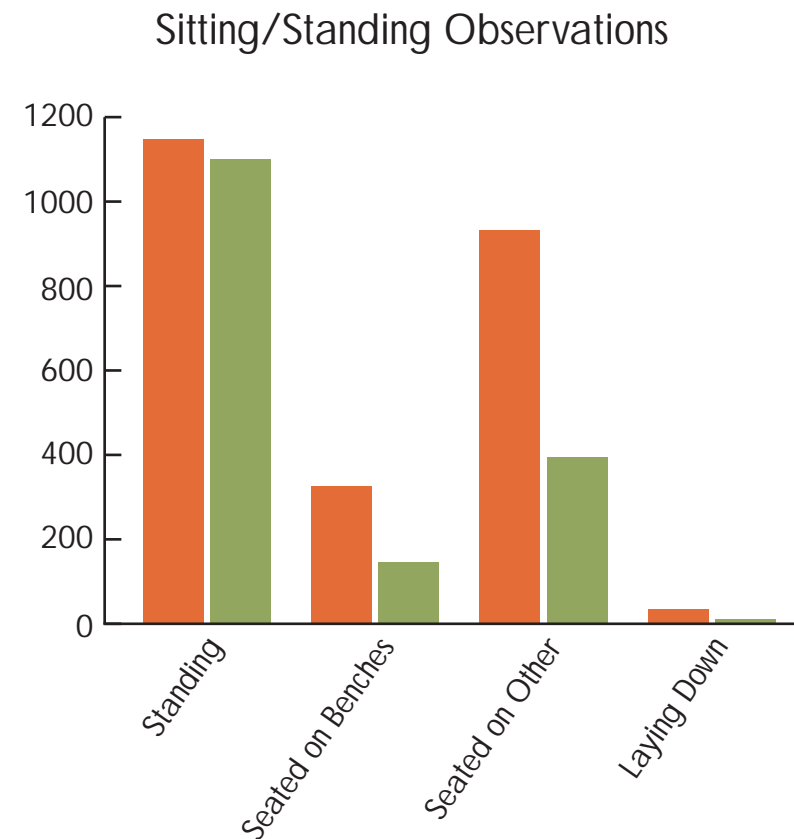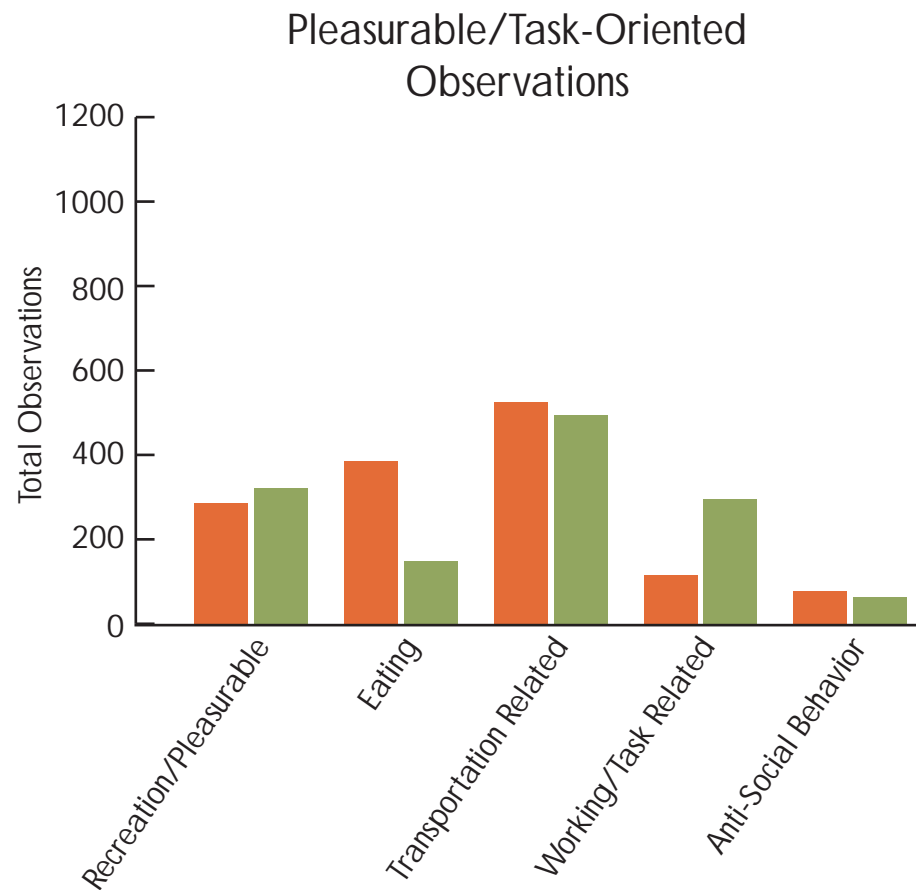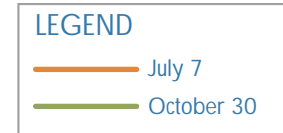
Stationary Activities Observed on Pennsylvania Avenue

Stationary Activities

STATIONARY MAPPING
Navy Memorial Plaza

9am - Tuesday, July 7

9am - Friday October 30

LEGEND
- 🔴 Standing
- 🔵 Seated
- 🟢 Eating
- 🟡 Group Activities
- 🟠 Recreation

1pm - Tuesday, July 7

1pm - Friday, October 30

Navy Memorial Plaza

5pm - Tuesday, July 7
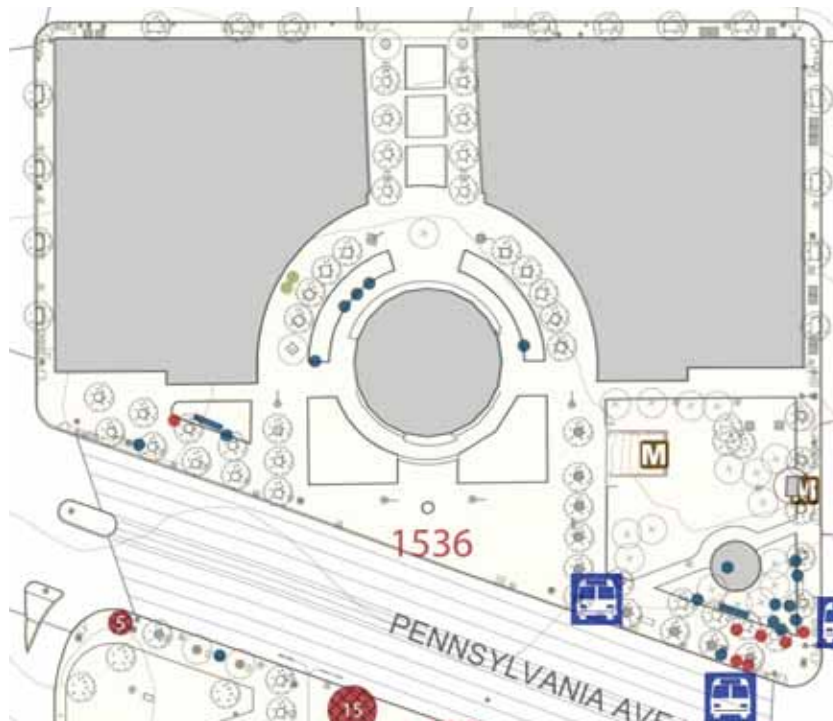
5pm - Friday, October 30
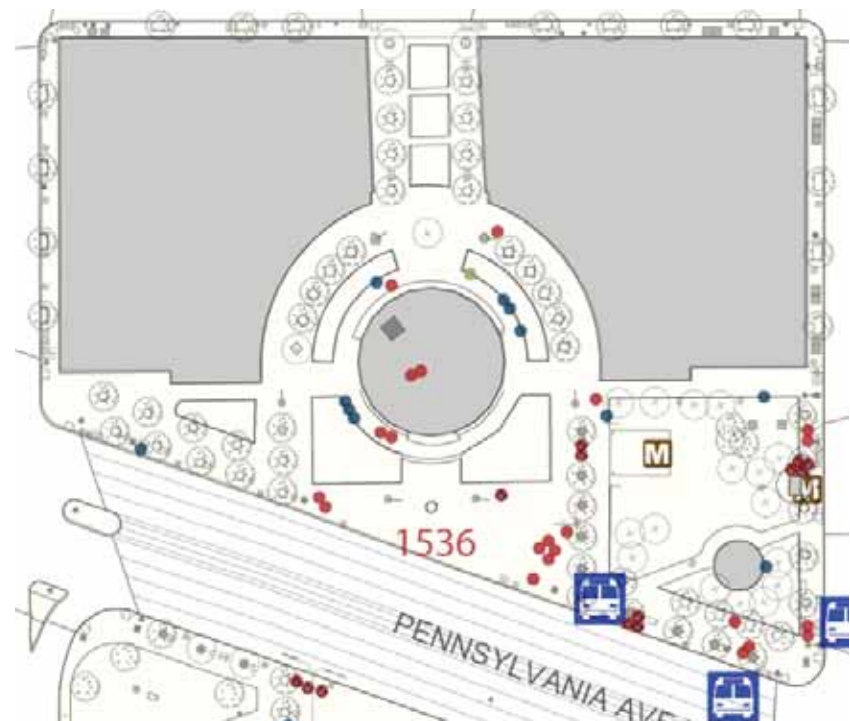
LEGEND
🔴 Standing
🔵 Seated
🟢 Eating
🟡 Group Activities
🟠 Recreation

6pm - Tuesday, July 7

6pm - Friday, October 30
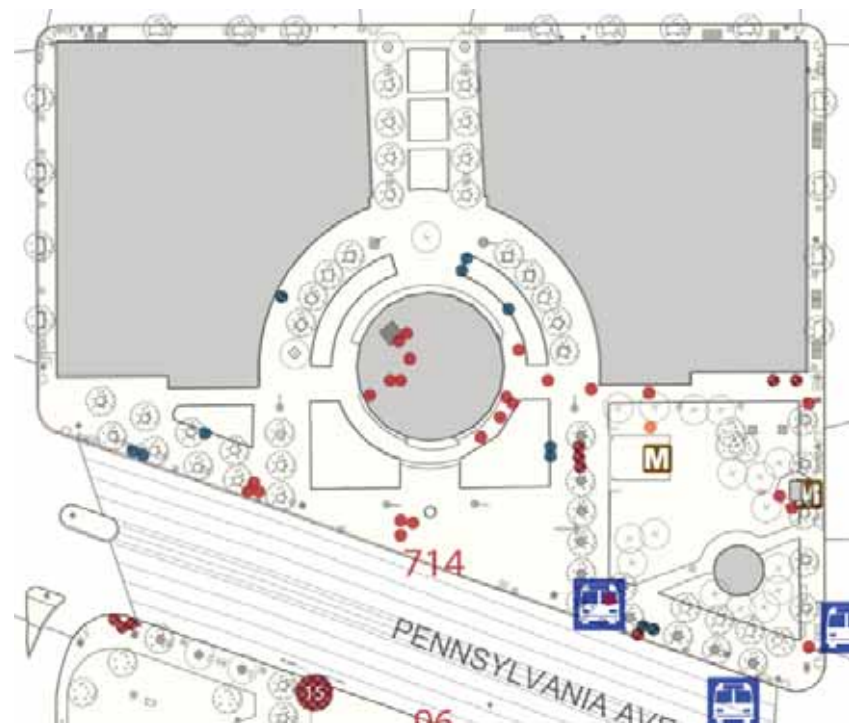
Freedom Plaza

9am - Tuesday, July 7
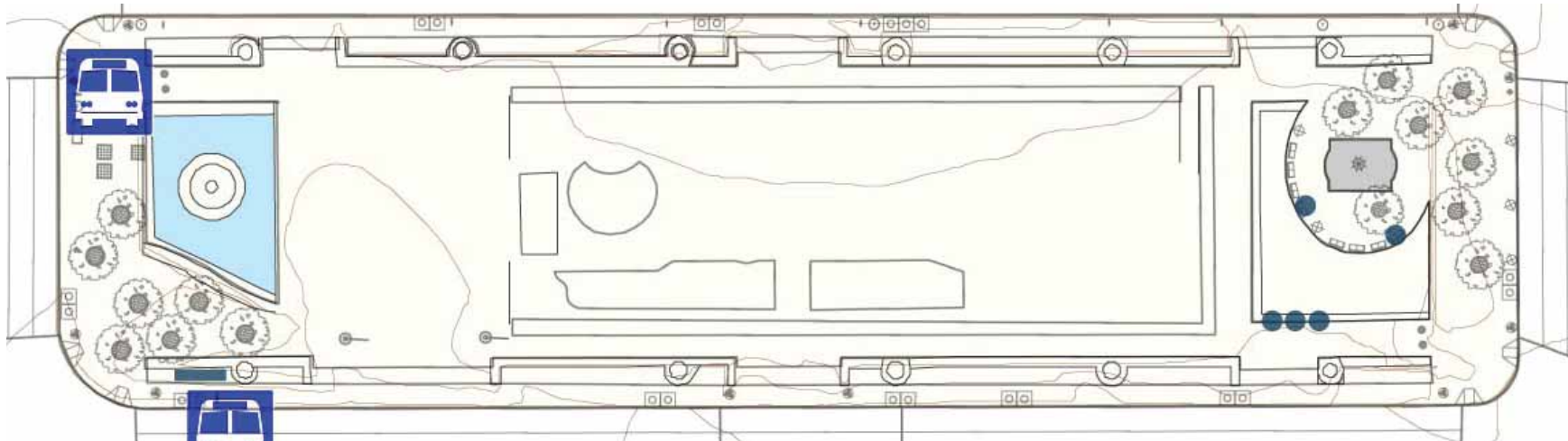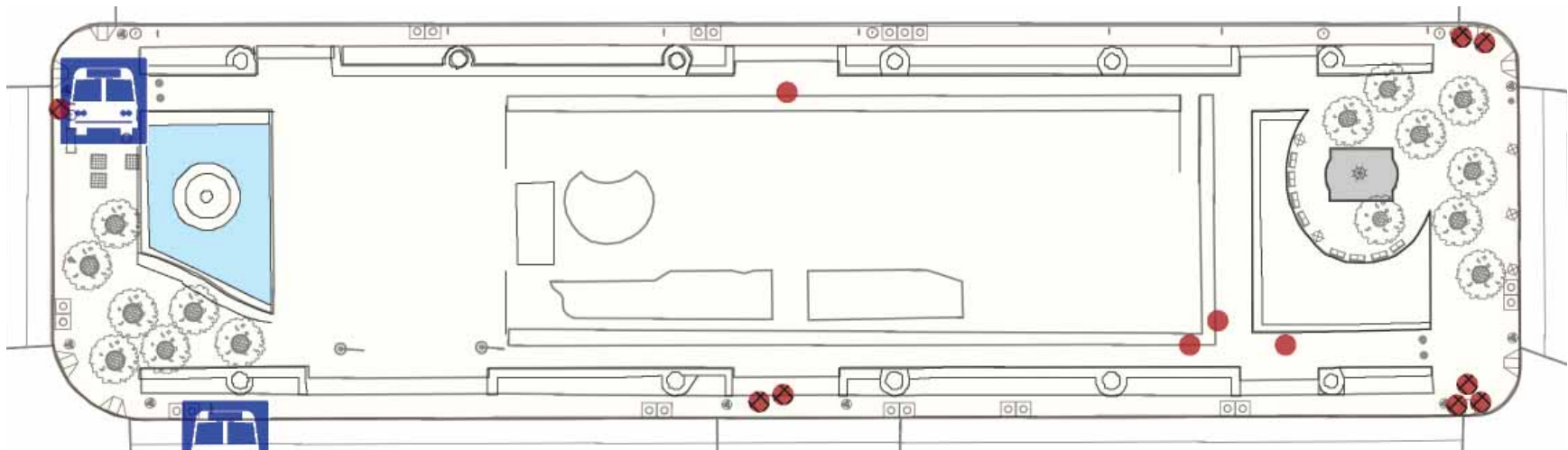
9am - Friday, October 30

LEGEND
- Standing (red)
- Seated (dark blue)
- Eating (green)
- Group Activities (yellow)
- Recreation (orange)
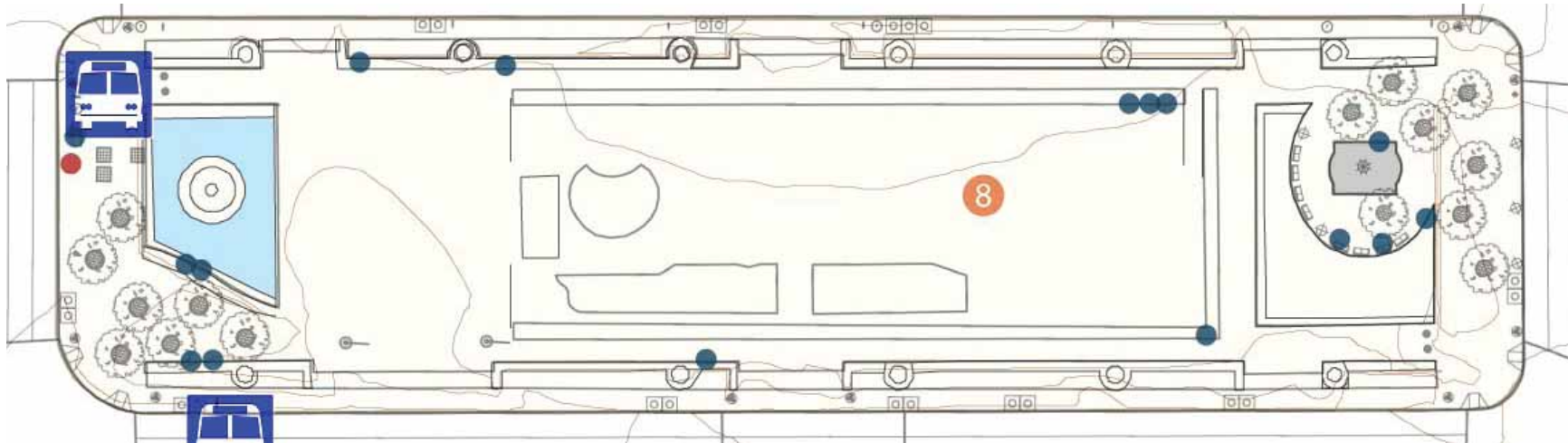
1pm - Tuesday, July 7

1pm - Friday, October 30
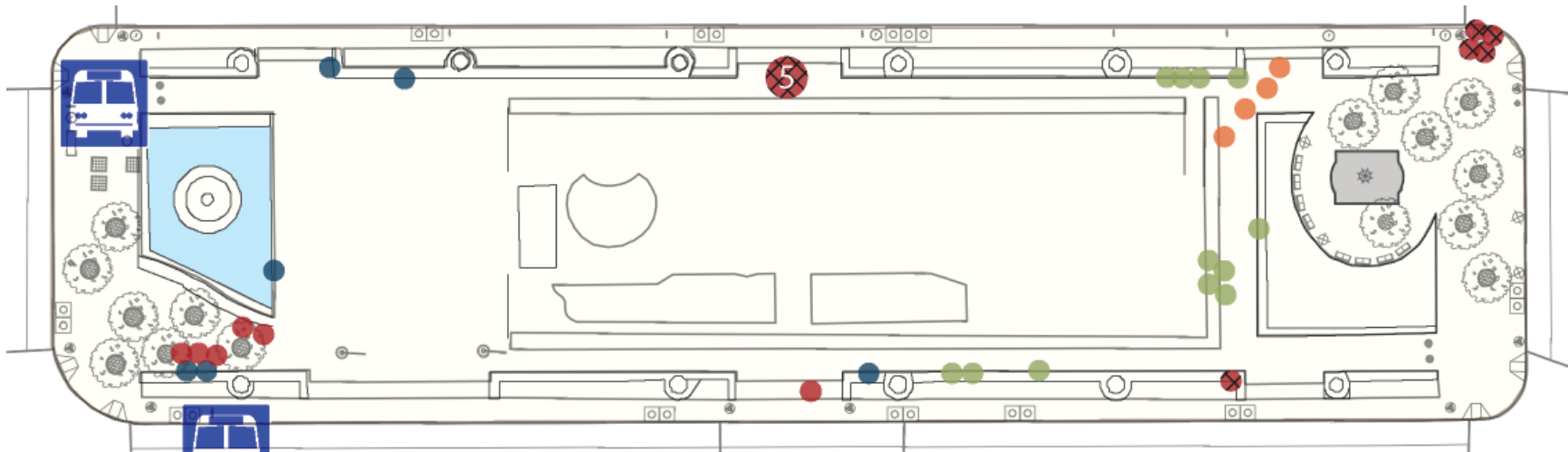
Freedom Plaza

5pm - Tuesday, July 7
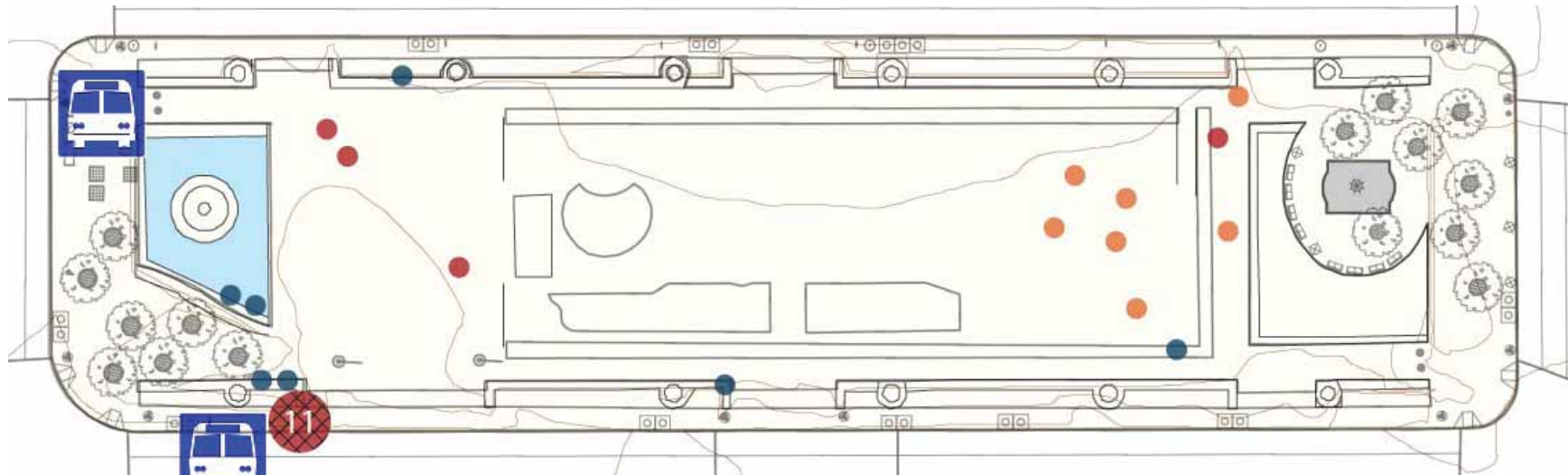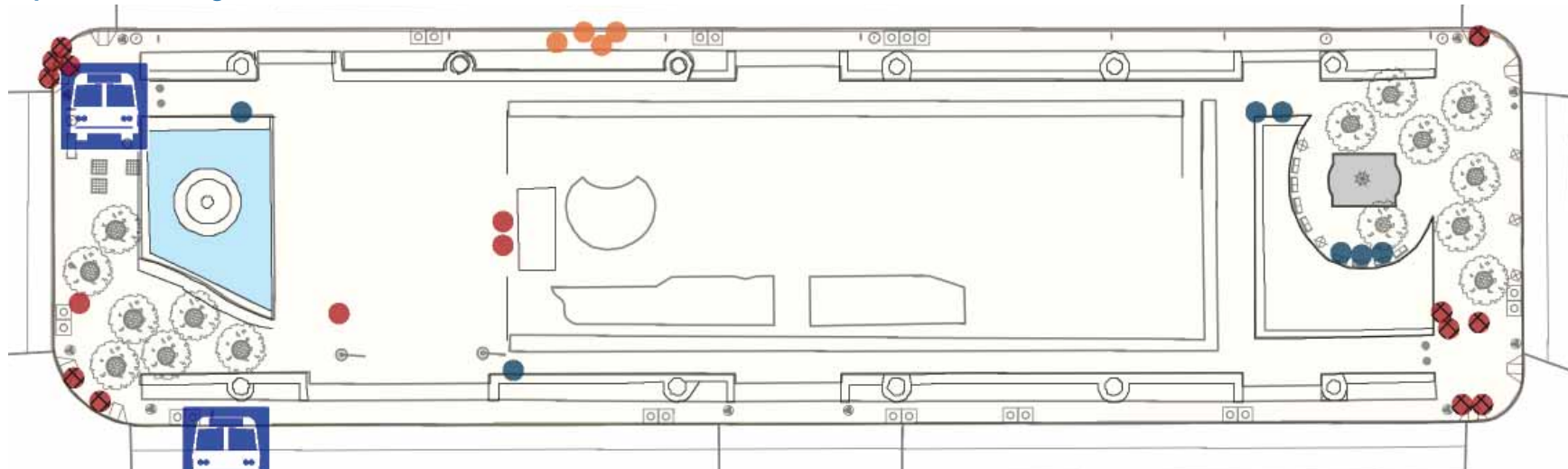
5pm - Friday, October 30

LEGEND

- Standing (red)
- Seated (dark blue)
- Eating (green)
- Group Activities (yellow)
- Recreation (orange)

6pm - Tuesday, July 7
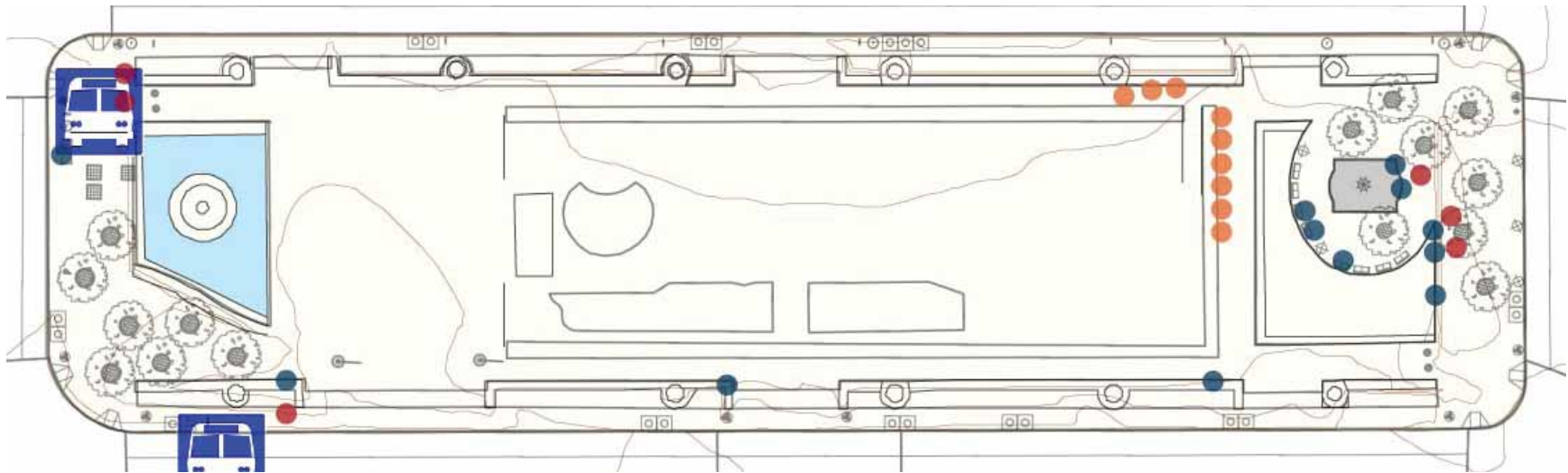
6pm - Friday, October 30

Pennsylvania Avenue Pedestrian Life Study Team