PEOPLE ON PENN

PENNSYLVANIA AVENUE PEDESTRIAN LIFE STUDY

A Study of the Pedestrian Experience of Pennsylvania Avenue NW
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 activity 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 Division 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.
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The Capitol Building sits at the eastern end of Pennsylvania Avenue, but this preeminent view is afforded primarily to the automobile.
A Great Street in Waiting.
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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 achieve 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”
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 transportation but create a prominent space for pedestrians. In comparison, Pennsylvania Avenue gives more of its space to the vehicular modes of transportation.

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.
INTRODUCTION

RINGSTRASSE
Vienna, Austria

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

UNTER DEN LINDEN
Berlin, Germany

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

PASSEIG DE GRACIA
Barcelona, Spain

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

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

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

WIDTH: 138’ (42m)
TRAFFIC: 6+2 lanes
STATUS: Major avenue within the primary shopping and business district
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.

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.
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.

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

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 fulfill 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.
CRITICAL FINDINGS AND OBSERVATIONS

Major Positive Elements

**SPLendid TREE CANOPY**

**GENERous STREETSCAPE**

**STATELY ARCHITECTURE**

**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.

Major Issues to be Addressed

**LACK of PLACES & DESTINATIONS**

**PERIPHERAL LOCATION**

**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

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.

NO REASON TO LINGER

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.

PROGRAMMING AT OFF HOURS

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.

INACTIVITY AT NIGHT

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.

HOMELESS ACTIVITY

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

A children’s Halloween parade at Navy Memorial.

Benches and street furniture are interspersed with security planters.

The outdoor dining at Elephant & Castle is secluded from the sidewalk.
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 obstacles 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?
Design Challenge 1: MIXTURE OF USES

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.”
Less Active than the Average Downtown Street

Despite excellent Metro and regional bus access, the pedestrian activity of Pennsylvania Avenue underperforms 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 an overall lower surrounding 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.

Downtown Average: 1100

<table>
<thead>
<tr>
<th>Station</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archives/Navy Memorial</td>
<td>5579</td>
<td>5624</td>
</tr>
<tr>
<td>Federal Triangle</td>
<td>5825</td>
<td>5845</td>
</tr>
<tr>
<td>Judiciary Square</td>
<td>6340</td>
<td>5755</td>
</tr>
<tr>
<td>Gallery Place</td>
<td>13,094</td>
<td>17,341</td>
</tr>
<tr>
<td>Metro Center</td>
<td>14,979</td>
<td>15,323</td>
</tr>
<tr>
<td>McPherson Square</td>
<td>10,643</td>
<td>9409</td>
</tr>
<tr>
<td>Farragut North</td>
<td>16,339</td>
<td>15,901</td>
</tr>
</tbody>
</table>

* Source: District Department of Transportation, Signalization Study, 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

* Source: DC Office of Planning, Existing Land Use Map, 2005 (modified to reflect current uses).
Inactive Ground Floors Don’t Attract People

What people experience 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

* 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?

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.
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

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

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

<table>
<thead>
<tr>
<th></th>
<th>PA Ave North</th>
<th>PA Ave South</th>
<th>Connecticut Ave</th>
<th>Champs-Élysées*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average bldg facade width</td>
<td>258 ft</td>
<td>288 ft</td>
<td>100 ft</td>
<td>89 ft</td>
</tr>
<tr>
<td>Average # of doors per block face</td>
<td>2</td>
<td>4</td>
<td>10</td>
<td>21</td>
</tr>
<tr>
<td>Percent ground floor windows</td>
<td>40%</td>
<td>20%</td>
<td>75%</td>
<td>80%</td>
</tr>
<tr>
<td>Average # of colors on facade</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>
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 noticeable 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.

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 a predictor for how active and busy a street will be.
Design Challenge 3: ACTIVE PLAZAS

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

Navy Memorial and Freedom Plaza are Underutilized Public Spaces

**Navy Memorial**
- Average number of people in Navy Memorial Plaza per hour: 55
- Graph showing the number of people in July and October for Navy Memorial

**Freedom Plaza**
- Average number of people in Freedom Plaza per hour: 20
- Graph showing the number of people in July and October for 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 commercial uses, are proximal to transit, and have high areas of open lawn and numerous shade trees.

### Public Space Characteristics

<table>
<thead>
<tr>
<th>Approximate Size (acres)</th>
<th>Navy Memorial</th>
<th>Freedom Plaza</th>
<th>Franklin Park</th>
<th>Farragut Sq</th>
</tr>
</thead>
<tbody>
<tr>
<td>% open lawn area</td>
<td>20%</td>
<td>5%</td>
<td>90%</td>
<td>80%</td>
</tr>
<tr>
<td># of people per acre (F 12-1pm)</td>
<td>43*</td>
<td>14*</td>
<td>56*</td>
<td>200*</td>
</tr>
<tr>
<td>% of seats in shaded areas</td>
<td>10%</td>
<td>10%</td>
<td>80%</td>
<td>50%</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th></th>
<th>NAVY MEMORIAL</th>
<th>FRANKLIN PARK (EAST LAWN)</th>
</tr>
</thead>
<tbody>
<tr>
<td># of people per acre (F 12-1pm)</td>
<td>43</td>
<td>56</td>
</tr>
<tr>
<td>average time spent</td>
<td>18 minutes</td>
<td>29 minutes</td>
</tr>
<tr>
<td>average group size</td>
<td>2.5 persons</td>
<td>3.2 persons</td>
</tr>
<tr>
<td>ratio of singles to people in groups</td>
<td>1:1</td>
<td>1:2</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Public Space Characteristics</th>
<th>Sculpture Garden</th>
<th>Navy Memorial</th>
<th>Freedom Plaza</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enclosure &amp; Edge</strong></td>
<td>enclosed on all sides, space arranged in “rooms”</td>
<td>enclosed on one side, space is predominantly open</td>
<td>no enclosure, space is wide open and raised</td>
</tr>
<tr>
<td><strong>Metro Access</strong></td>
<td>.25 miles</td>
<td>Metro within the space</td>
<td>.1 miles</td>
</tr>
<tr>
<td><strong>Seating</strong></td>
<td>many types, mix of shade/sun</td>
<td>ledge seating or private cafe, mostly sun</td>
<td>ledge seating only, mostly sun</td>
</tr>
<tr>
<td><strong>Green Space</strong></td>
<td>well maintained, signature fountain</td>
<td>inaccessible, pleasant water feature</td>
<td>none, water feature is inoperable</td>
</tr>
</tbody>
</table>
How do we make the sidewalks more human-scaled?

Current Sidewalks Do Not Provide a Sense of Intimacy or Enclosure

A. 1201 PA AVE SIDEWALK

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.
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.

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

Tree canopy creates good "ceiling"
Programmed Wide Sidewalks Can Engage the Pedestrian

The sidewalks on 19th Street NW and on Champs Élysées 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.

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.

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.

Along the Champs Élysées, 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.
Design Challenge 5: THE EXPERIENCE

What is the Pennsylvania Avenue experience?

Top Three Activities Observed on Pennsylvania Avenue

- **EATING (20%)**: includes eating on benches, in plazas, and at outdoor cafe seating
- **WAITING FOR TRANSIT (18%)**: includes waiting in bus shelters and on sidewalks for Metrobus, Federal shuttle, taxi, etc.
- **WORKING (8%)**: 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 great 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

<table>
<thead>
<tr>
<th>Primary Experience</th>
<th>premier shopping street</th>
<th>elegant promenade and civic space</th>
<th>commercial and cultural center</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAMPS ÉLYSÉES</td>
<td>RINGSTRASSE</td>
<td>PASSEIG DE GRACIA</td>
<td></td>
</tr>
</tbody>
</table>
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.
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 activity when there is often a major event drawing thousands of participants. Creating a attaractive everyday 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

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

* average for July and October data.
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.

The Avenue restaurant is hidden from pedestrians within the arcade.

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 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.

Avenue Grill $\quad 1 \quad 0$

DelFrisco’s Grille $$$\quad 0 \quad 9$

Elephant & Castle $$\quad 12 \quad 67$

Central $$$\quad 0 \quad 16$

Paul and Chop’t $$\quad 0 \quad 22$

Plan B Burgers $$\quad 0 \quad 24$

701 $$$\quad 0 \quad 3$

**Legend**

- Outdoor diners
- Peak occupancy

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

Pedestrian activity

Operating hours (typical weekday)

5pm

10pm

Valet parking encourages patrons to drive and park instead of walking to and from the restaurants.
People pass by a street musician during the evening rush hour outside the Archives Metro station.

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.
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 creating 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 public space is a way of involving a range of stakeholders in generating many potential solutions to a physical design challenge in a temporary setting. 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 these possibilities in real life.

Good reasons to prototype:

- Shorten the distance between citizen and decision-maker, thereby creating more productive and meaningful forms of citizen engagement.
- Unlock the potential of civic assets of people and places.
- Create a feedback loop between community need, intervention, and use.
- Erode the unimaginable.
- Shorten the distance between idea and implementation.
- Envision the unimaginable.

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.

ACTIVITIES BRING PEOPLE TOGETHER

**INTERACTIVE FOUNTAINS**

**STREET FURNISHINGS THAT CONVEY A SENSE OF PLAYFULNESS AND HUMOR**

**OUTDOOR PERFORMANCE SPACE**

**INTERVENTION**

**City Fabric**

**Hillside Community**
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.

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.
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 area and the block naming conventions used throughout the study.
PEDESTRIAN COUNTS
Comparison Graph - July and October Pedestrian Counts

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LEGEND
- Orange: July 7
- Green: October 30
## Pedestrian Count Data by Block per Hour

**Tuesday, July 7, 2015**

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## Friday, October 30, 2015

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NORTH-SOUTH COMPARISON

JULY: Pedestrian Counts for North and South Blocks
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**

**LEGEND**
- **July 7**
- **October 30**
Stationary Activities Observed on Pennsylvania Avenue

LEGEND
- Orange: July 7
- Green: October 30

Stationary Activities

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STATIONARY MAPPING
Navy Memorial Plaza

9am - Tuesday, July 7

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

1 pm - Friday, October 30
Navy Memorial Plaza

5pm - Tuesday, July 7

5pm - Friday, October 30
6pm - Tuesday, July 7

6pm - Friday, October 30
Freedom Plaza

9am - Tuesday, July 7

9am - Friday, October 30
1pm - Tuesday, July 7

1pm - Friday, October 30
Freedom Plaza

5pm - Tuesday, July 7

5pm - Friday, October 30
6pm - Tuesday, July 7

6pm - Friday, October 30
Pennsylvania Avenue Pedestrian Life Study Team

District of Columbia Office of Planning
www.planning.dc.gov

Eric Shaw - Director
Tanya Stern - Deputy Director, Data, Engagement and Design
Patricia Zingsheim - Associate Director, Design Division
Thor Nelson - Urban Designer
Emily Pierson - Urban Design Intern

National Capital Planning Commission
www.ncpc.gov

Sarah Ridgely - Urban Planner
Meghan Spigle - Community Planner

Gehl Architects (Advisor)
www.gehlarchitects.com

Jeff Risom - Managing Director, Gehl Studio

Pennsylvania Avenue Pedestrian Study Observation Team

Kael Anderson  Dan Emerine  Thor Nelson  Josh Silver
Nick Bonard   Thaddeaus Green Brandon Perez  Meghan Spigle
Laine Cidlowski Andrea Limauro Emily Pierson  Tamara Vatnick
Angela Dupont  Dulce Naime  Sarah Ridgely  Ken Walton