

# Grand Army Plaza

Open Space opens minds



A senior project presented to the faculty of Landscape Architecture Program  
at the University of California at Davis, in partial fulfillment of the requirements for the degree of  
Bachelor of Science of Landscape Architecture.

## GRAND ARMY PLAZA

*Open Space opens minds*

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## Abstract

The Grand Army Plaza, formerly known as Prospect Park Plaza, is an eleven-acre, oval shaped plaza lying in the heart of Brooklyn, New York. The plaza is known to New Yorkers as the 'heart of Brooklyn' literally and figuratively. The plaza was designed by Frederick Law Olmstead and Calvert Vaux in 1866 to serve as a parade ground and a formal entrance to Prospect Park and other public enterprises. In 1926, the plaza's name was changed to Grand Army Plaza marking the 60th anniversary of the end of Civil War.



Figure 1.0

The Grand Army Plaza was intended by its designers to be a central gathering space for the citizens of Brooklyn. Prior to the age of the automobile, the Grand Army Plaza was the meeting place and home to hundreds of cultural events and celebrations throughout the year. However, as automobiles began to dominate the world, namely, Brooklyn, the Grand Army Plaza became a deserted island and a no man's land standing in the middle of a congested highway.

New York underwent major social, cultural, and economic changes at the dawn of the new era. As Brooklyn became one of the most populated metropolitan boroughs in the world, it required many necessary developmental measures to accommodate for these unprecedented changes. The drastic increase in population diversity, real estate, and business development escalated the scarcity of land in Brooklyn. Due to the high demand, much of the unused, semi-public, open spaces were rezoned and converted into high-density housing and business developments. The remaining public spaces that were vacant were reinvented to maximize their efficiency and potential.

The current design of the Grand Army Plaza fails in successfully portraying the rich and dynamic culture and history of Brooklyn. The difficulties in accessibility and the lack of use prevent the plaza from reaching its full potential of becoming a prosperous public open space. The goal of the "Reinventing Grand Army Plaza Project" is to revitalize the vivacity of the public



plaza through research and design. This project focuses primarily on reclaiming the civic gathering space by creating an attractive environment with maximum accessibility for the community and tourists. The project aims to solve traffic safety issues by redirecting traffic and creating strong entryways designated to promote pedestrian usage. The project adopts sustainable measures by capturing surface runoffs for onsite use. Phase One of the project focuses on researching and conducting a site analysis to identify design flaws. During Phase One a “Participatory Design and Plan” approach is employed to obtain feedback and design program ideas that can be implemented as actual schematic designs. Phase Two focuses on combining desired elements with traffic solutions and producing schematic designs. These schematic designs are presented to the public for review and critique and then refined into one final design. The research and design methods are developed into guidelines for future designs of public plazas.



*I dedicate this project to my family and friends for all their support.*

*To my parents: Thank you for your unconditional love and inspiration.*

*I would also like to give a special thanks to Hà Nguyen for  
all her help and mental support throughout my toughest  
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## Preface

In 2008, the Design Trust for Public Space and the Grand Army Plaza Coalition hosted an open idea competition to “Reinvent the Grand Army Plaza.” The Grand Army Plaza is considered one of the “greatest unrealized assets” of Brooklyn. The plaza does not only have historical significance but it is also a monumental landmark that has the potential to be a world-class civic space.

“Reinventing Grand Army Plaza” is an international competition hosted by the Design Trust for Public Space and GAPCo in an effort to generate creative ideas and approaches to improve the current condition of the plaza. “Reinventing Grand Army Plaza” is also a collaborative effort with PlaNYC to promote sustainability and improve quality of life for New Yorkers.

The Design Trust for Public Space (PPS) is a non-profit organization dedicated to improving New York City’s parks, plazas, streets, and public buildings. The PPS brings people from all different professions and walks of life together to generate innovative options to make the city more beautiful, sustainable, and available to all. As promised in its mission, PPS is collaborating with the Grand Army Plaza Coalition—an alliance of Brooklyn community groups and cultural organizations working together to improve

Grand Army Plaza. Prior to partnering with PPS, GAPCo have worked with many agencies to generate ideas to improve the Grand Army Plaza.

PlaNYC is committed to promoting cycling and walking, and improving traffic flow by reducing congestion throughout the city of New York. PlaNYC employs five important components (land, water, air, energy, and transportation) to help New York become the standard for cities in the 21st century. The goal of PlaNYC is to not only improve the quality of life in New York City, but also to contribute to a 30% decrease in global warming emissions.

The purpose of the “Grand Army Plaza: Open Space opens minds” (GAPOSOM) is to revive the enthusiasm once felt about public open space through sustainable practices. This project focuses primarily on reclaiming the civic gathering space by creating an attractive environment with a maximum level of accessibility to the community and its visitors. The redesign will help mitigate traffic problems and redefine a strong boundary between pedestrian and automobile traffic. The Plaza will also be designed to accommodate a wide range of activities and community events year-round. The redesign will adopt new sustainable measures by capturing onsite surface runoffs to reduce long-term ecological effects. Finally, the design will serve as a focal point and as a connection to public



enterprise.

## Review of Topics

The theories and principles of the “Grand Army Plaza: Open Space opens minds” design employ successful elements that can be supported by studies and evaluations. The research process begins with looking over studies on successful plazas with a book called *People Places*, a study conducted by the UC Berkeley Landscape Architecture Department. *People Places* is a book that focuses on public places, mainly parks and plazas. The book provides its reader with various aspects of plaza design, ranging from a plaza’s function to possible programs and activities that can be implemented in one. Case studies were also drawn from the book, *Public Spaces*, by Carr, Francis, Rivlin, and Stone. This book contains some of the latest studies in public open spaces. Looking at case studies of successful and unsuccessful plazas helps designers learn and teaches them to stay away from mistakes that have already been made in the past.

In addition to the published text, sources like the competition brief, the GAPCo workshop result, and the Gehl study report have provided insightful information and have set the context for this whole project. These archival documents served as the starting point for the site analysis

and designing process. The competition brief in particular, provided useful statistics and background of the surrounding neighborhoods, which gave the designer a better understanding of the community and its users.



## Research and Success Stories

### Boston City Hall Plaza

*Massachusetts, U.S.A*

Located in Boston, Massachusetts, the City Hall Plaza was created by William Whyte in 1968. Though the City Hall Plaza is one of Boston's most monumental locations, it is the least used public open space because of the lack of attention Whyte gave towards human needs. The City Hall Plaza enhances the appearance of Kallman and McKinnel's nearby buildings with an open space.

William Whyte found inspiration from an Italian plaza, modeling the City Hall after the Piazza del Campo in Siena, Italy. The Piazza del Campo truly represents a civic open space for not only the monumental buildings and forecourts, but also because of the regularly held market places along with a vast open space for festivals, tournaments, and civic celebrations. City Hall Plaza, on the other hand, finds little success when it comes to being an activity filled plaza due to the lack of usability and symbolic significance.

The City Hall Plaza was planned as a part of the Government Center Urban Renewal Project. Located in a less than dynamic arena, there are no retail stores or restaurants nearby leaving people with little reason to utilize the City Hall Plaza. In addition, Whyte's construction of the



*Roller skating at City Hall Plaza* Figure 1.1

City Hall Plaza is heavily criticized for its lack of concern for human needs. City Hall Plaza was clearly designed to fulfill only the architectural needs, ignoring human needs from the few trees and benches lined only in the western edge of the plaza. However, many have described the City Hall Plaza to be less than inviting because of the massive concrete shaped benches being immovable and uncomfortable, located away from any activity that might be occurring on the plaza. With not enough buildings or protection to block high winds, many people endure heavy discomfort during windy days.

William Whyte cannot be the main person to blame when referring to the lack of activity and



usability by the general public. The city also makes little effort to schedule fun-filled events and activities in order to brighten and invite the community to take part of the City Hall Plaza. Outside of scheduling summer concerts, there are no other activities scheduled to give the City Hall Plaza life. Many believe that the with a variety of dynamic activities surrounding the plaza, the importance and the value of the City Plaza itself would dim in the eyes of the community.

*Source: Public Space*



## Plaza of Centre Georges Pompidou

*Paris, France*

The Plaza of Centre Georges Pompidou, also named the Beaubourg, was designed by two architects, Piano and Rogers, and located in the center of the city of Paris. The purpose of the Plaza of Centre Georges Pompidou was to serve as center of information, entertainment, and culture. Standing as a popular Paris attraction, the Pompidou draws in a great amount of people from the many activities surrounding the area. On a regular day, the Pompidou Plaza can be seen filled with people actively using the plaza by sunning themselves, talking, eating, reading, sleeping, and resting. On days with musical or theatrical events, people would even join in by dancing or singing to the music.

The success of the plaza can be found from the carefully thought out considerations of people's needs integrated effectively with opportunities for rest and relaxation, to watch the activities in the open space, or to even participate in the liveliness. Though the open space is simply a large concrete pavement, the vast square seems to be a comfortable enough place for people to gather around.

The Pompidou Plaza is most alive during the summer with various activities occurring almost every day of the week. The artists who perform on the plaza display multitudes of entertainment and professionalism causing

people would walk away from the regular mime performers and gather around the more professional artists.

The Pompidou Plaza's transformation from the past to its present state is still a bit of a mystery; however, its location could be considered one



*People use steps as benches* Figure 1.2 of the key reasons for its success. People have been attracted to the site from the beginning. Although, the city of Paris is filled with performers all over the city, in subway stations, arcades, on the streets, and so forth people still choose to gather at Pompidou Plaza because of the colorful array of performers, amusement, and novelty. The plaza activity has been highly praised by the judges of artistic work and by the general public. Though the Beaubourg is similar in size to the Boston City Hall Plaza, the Beaubourg is extremely successful compared to the void of life and lack of activity in the Boston City Plaza. Overall, the Beaubourg is highly successful because of the constant usability by the commu-





nity.

Source: Public Space

Figure 1.3



Daily activities at Pompidou



## Grace Plaza

New York, U.S.A

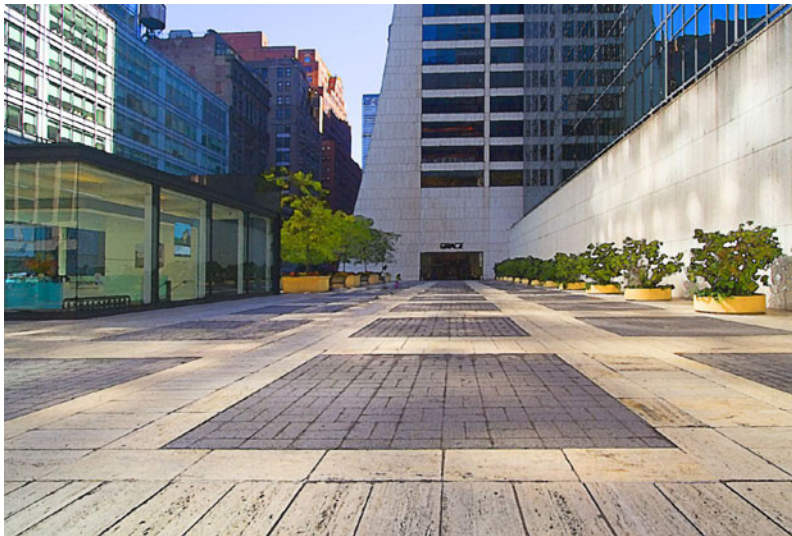
Located at the corner of Avenue of the Americas and Forty-third Street in New York, New York, the Grace Plaza was designed adjacent to the Grace Building by Skidmore, Owings, and Merrill. The Grace Plaza was officially completed in 1973 at a size of around 20,000 feet. The reconstruction of the Grace Plaza began when the

Grace Corporation sponsored a student competition to help redesign the original plaza.

The final design of Grace Plaza consisted of two rows of potted trees with a series of benches.

On the south end of the plaza, there are a strip of more benches. The plaza served as an official entrance to the Grace Building on the Avenue of the Americas along with another less used entry way from the underground garage. Underneath Grace Plaza is the Graduate School and the University Center of the City University of New York.

Grace Plaza is a good example showcasing the difficulties faced by urban open spaces. One of the difficulties faced is how these plazas can



*Grace Plaza on a weekday*

grow out of the developer's desires to increase commercial space to focus on the user's needs. One major problem was the constant use of Grace Plaza by "undesirables" who were often selling drugs or loitering around. In the beginning, Grace Plaza criticism was primarily aimed at the bareness of the site and the absence of features that would attract the community. It was even considered one of the less successful plazas in

New York City by

Paul Goldberger of the New York Times.

Overtime, the plaza continued to face other criticisms for the lack of variety in the users and the little attractions offered

Figure 1.4

on the plaza. The sunless corners discouraged pedestrians to make use of the park when unable to find an area of shade and comfort. On the brighter side, however, there was a small amount of people who did occasionally walk through the plaza.

Grace Plaza received many proposals suggesting to create a six-foot ironed gate fence around the plaza in hopes of lessening the amount of "undesirables". However, the proposal was denied for violation of city's zoning laws. The



fence was removed after being placed in for less than a year. Another proposal suggested an enclosure of the space to create a shopping arcade; nevertheless, the proposal raised a public debate on the privatization of a public space. The proposal was abandoned. Overall, in a small site like Grace Plaza, it is critical that the place support the users in their possible desires of sitting peacefully, to mingle, to find comfort, or to enjoy something of interest. And for all these reasons above, Grace Plaza failed.

*Source: Public Space*



## Entrance Plazas - Lowell Heritage State Park

Massachusetts, U.S.A

Designed by Carr, Lynch Associates, the Entrance Plazas is located in Lowell, Massachusetts on the Merrimack Canal between Shattuck, Market, and Button streets. Entrance Plazas was completed in 1984 at a size of 0.5 acres wide. The purpose of the Entrance Plazas was to introduce the theme of Lowell Heritage State Park

to the visitors as well as help them interpret the history and the meaning of the site.

The Entrance Plazas' designers had four main goals – first, to interpret the history of Low-

ell; second, to commemorate the history of the park; third, to satisfy the visitors' need for a place of relaxation and rest; and lastly, to satisfy the needs of the citizens of Lowell.

One of the challenges when constructing Entrance Plazas was creating two separate yet closely linked plazas. In addition, another challenge faced was creating apparent distinctions between both plazas with a good amount of

common elements for the visitors to see uniformity yet differences. The West Plaza was intended to serve as a reminder and celebration of Lowell's canal system. The East Plaza serves to remind the public about the millworkers and their arrival on in the city.

Though the needs and rights of the visitors and

residents were important factors in the design of the plazas, the main desire was to create an area that was meaningful through illustrations of specific moments in history as well as a way



Seatings at Lowell Heritage State Park Figure 1.5

to develop knowledge of the larger historical context.

Source: Public Space



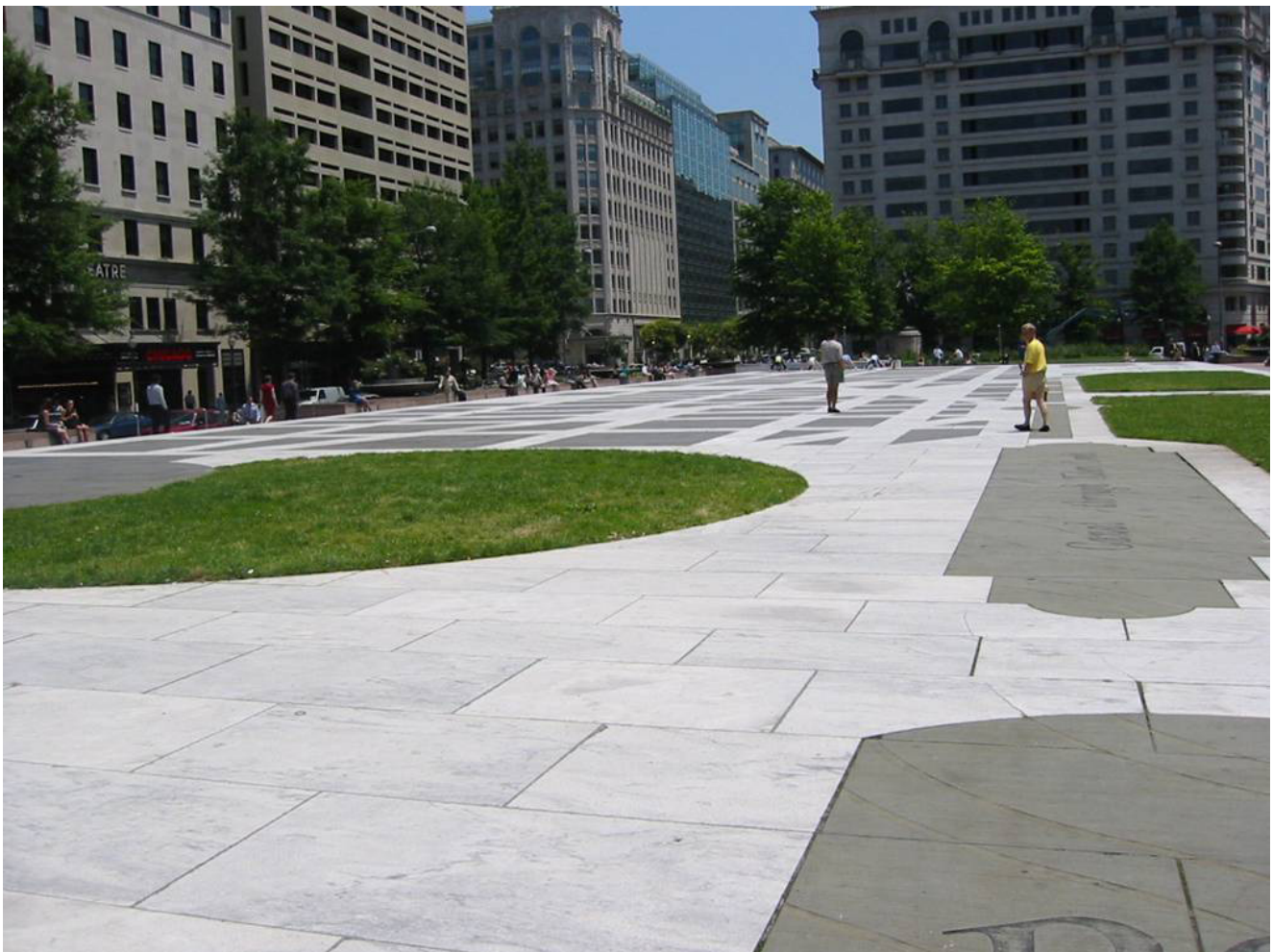
## Freedom Plaza

Washington D.C. U.S.A

What sets Freedom Plaza apart from many other public open space plazas is the fact that it was designed in an array of black and white stones used to depict an 1887 plan of Washington at a grander scale. Designed by George E. Patton and Venturi, Rauch and Scott Brown, Freedom Plaza is located in Washington D.C. on Pennsylvania Avenue between Fourteenth and Fifteenth streets. Historic quotations about the city are inscribed in the pavement, the raised terrace,

and the surrounding walkway. With the map/terrace being the plaza's main feature, there is also a sitting area around the state of General Casimir Pulaski at the plaza's east end and a reflecting pool at the west end.

Being raised above street level and set behind low granite walls, Freedom Plaza has been successfully disconnected from the street with no relationship to any surrounding buildings or areas. Another unique factor about the plaza



*Black and white stone with quotations on pavement*

Figure 1.6  
Grand Army Plaza





*Street view of Freedom Plaza*

is its perception as more of a monument than a plaza, with few compromises to the human needs. The abstract design of Freedom Plaza serves as both a symbol and a tool for understanding the city.

The plan of the city was to create a feeling of patriotism among the visitors when reading the historical quotations along the pavement and walkway. Moreover, it also helps with the expression of the people's will and ideas of the nation become more clearly and blatantly expressed. The Freedom Plaza also serves to provide a sense of connection between the people and the nation. The terrace and map functions as a way of familiarizing users to the city and

Figure 1.7

helping them understand the relationship between the plaza site to the city.

The Freedom Plaza has a basic national and touristic purpose, with little reason for any tourists to return after the first visit. Because of this, many have questioned whether Freedom Plaza appropriately and effectively uses the large open space. However, connecting people to the city symbolically and historically are extremely important goals successfully accomplished by Freedom Plaza.

*Source: Public Space*



## Characteristics of a Successful Place

As pointed out in the “Project for Public Space”, a great public place possesses four major categories of key attributes. First, the place must fulfill the sociability aspect. A great social place must be interactive, encouraging of diversity, welcoming, becoming to the eye, and so forth. Secondly, the great place must have a variety of uses. In order to draw people to the space, the place must be able to offer various events and/or activities. Third, the place must provide access and linkage to other public places throughout the community. A great place must be connected, accessible and close in proximity to other public facilities. And finally, the place will be successful if it provides comfort and is pleasant in appearance. People, in general, are attracted and drawn to things that are comfortable and beautiful thus making it necessary that the place embody these traits. A great place is a place that is safe, clean and special—either through a historical or perceived context. The following design guidelines were extracted from *People Places*—a book compiled by the Landscape Architecture Department at the University of California, Berkeley.

*Source: Project for Public Space*

### Definition

According to *People Places*, a plaza is conventionally known as a predominately hard-sur-

facd, outdoor public space from which automobiles are excluded. The primary functions of a plaza are for strolling and sitting. A plaza, in its own right, is a place for people to gather rather than a place for people to pass through. Unlike parks and other green spaces, plazas are typically covered with pavement but they too can have some trees and groundcovers. Parks and plazas provide economic, social, environmental and health benefits. Open space increases property values and attracts business and real-estate developments. Open space also attracts tourism and revitalizes the economy.

### Functions

Beyond being a civic gathering space, a plaza also has many other functions. A plaza is a place for people to meet, hang out, and/or have a conversation with their neighbors or with

Figure 1.8



*Children activities at Piazza Maggiore*



strangers. Many people may choose to use the plaza as a place to pass through while others may choose to use it for a variety of other activities. Office workers and shoppers can use the plaza as a place for lunch or relaxation. Local artists can use it to display their artwork or to perform. Thus, in order for a plaza to be successful, the design must be flexible and able to support a wide range of activities.

### Users and Activities

Studies have shown that plazas that do not act as thoroughfares have the ability to retain people for a longer amount of time. Plazas with water fountains and ample sitting space attract more sitters and lingerers. People watchers and lingerers tend to sit away from the main thoroughfares. Thus, a plaza should provide space for these types of activities. Conversely, those that wish to pass right through the plaza or to use it as a shortcut like to have a direct route as opposed to walking in circles. Studies also show that males tend to come to such spaces alone and tend to assume a dominant predisposition.



*Kogens Nytorv, Copenhagen* Figure 1.9

Females, on the other hand, like to be in groups and tend to sit in less crowded spaces. The majority of the plaza's users come to eat food, be entertained and watch people. Most of the activities done at the plaza are passive and do not require much physical exertion.

### Potential Service Area

The visibility of a neighborhood park or plaza is a significant factor in its use by the surrounding community. People who cannot see a park or plaza from their home or work tend to use it less frequently than those who can. Thus, plazas that have small or low visibility because they are sunken or separated from adjacent thoroughfares tend to have smaller service areas than the highly visible ones.

### Microclimate

Microclimate is an essential factor in determining the usability of a public place. To encourage usage, a plaza should receive as much sunlight as its surrounding environment will permit. In hot summer regions, the plaza should have enough summer shade to accommodate its users on a hot day. Normally, a temperature of 55° F will increase pleasure walking and pedestrian activities. A plaza should face in a direction where the glare from adjacent buildings or structures can be avoided. If possible, the plaza should be a good distance away from tall surrounding buildings due to the downward de-





flection of wind that they can cause.

## Boundaries

The public space must be distinguished from its surrounding environments. The boundaries need to be clear enough for people to know that they are in a public setting, but subtle so people do not feel segregated.

## Sub-spaces

Large plazas should be divided into smaller spaces to encourage different activities. The tools used to differentiate spaces do not have to be a physical. However, the boundaries between different subspaces must be clear but subtle to prevent people from feeling segregated into a particular area. If the space is too small, the users will feel a sense of intrusion. However, if the space is too big, the users will feel daunted and alienated. The designer should use his or her own judgments to create an appropriate size for the type of use.



*Unknown to author, Image from Google*

## Circulation

Attractions in the plaza and a pleasant environment conducive to walking will encourage downtown workers to leave their office and take their breaks outside. Pedestrian activities such as walking and running have been proven to reduce carbon dioxide emission. There are three types of pedestrian circulation: passing through, access to adjacent buildings, and access to seating or viewing areas. Pedestrians tend to disregard the color or shade of pavement material but respect physical barriers and strong changes in texture. Pedestrians tend to avoid cobblestone, gravel and grates. Walkers tend to migrate toward central spaces while sitters and watchers like to take the edges. Designers can use these factors to help them manipulate and guide people into a particular area.

Figure 2.1



*Unknown to author, Image from Google*



## Seating

The rule of simplicity works well in seating. In general, the best places to sit are often the simplest. Steps, walls, planting boxes and fountains usually represent the basic seating facilities in plazas and downtown areas. A successful plaza should provide an ample variety of seating arrangements. To create seating that encourages interaction between people, it is necessary to stay away from linear structures like benches because they are not conducive for conversation. Linear seating is good for people who like to sit alone or in a group. Wide backless benches are good for two or four people to sit on and/or to have lunch. The seating material should not be too hot or cold. Wood generally tends to be warm and comfortable, thus, it is a better choice for a seating facility.



*Pioneer Courthouse, Oregon* Figure 2.2

## Planting

A carefully thought out planting plan that takes

such factors as variety and quality of texture, massing and aural and olfactory effects into consideration can increase a plaza's use immeasurably. The plants will attract people to the space and also enhance their experience at the plaza. Adding plants and greenery will also provide a pleasing aesthetic relief from concrete and can also block out unattractive features. The key to a successful planting plan is to make sure that there are a pleasing variety of color, texture, height and amount of shade. The appropriate placement of plants for color and fragrance plays an important role in the user's experience.



*Pioneer Courthouse, Oregon* Figure 2.3

## Level Changes

In general, plazas with some level changes tend to be more aesthetically preferred by users than flat ones. Psychologically, people attain a peculiar satisfaction by standing at a vantage point and looking down at the sea of people beneath them. Height usually means privilege while depth signifies intimacy. However, upon creat-



ing level changes, it is important to maintain the onlooker's visual connection for enhancement and awareness purposes. To create such an effect, a plaza should only be slightly above or below street level. If the plaza is too high or too low from the street level, it will lose visual contact from the street and create an inconvenience for the users, not to mention the fact that a sunken plaza feels like an oven on a hot day.



*Pioneer Courthouse, Oregon* Figure 2.4

## Fountain

Perhaps fountains are the most cliché element in public space design, but for good reasons. The sound of moving water is both visually and aurally attractive to the observer. Fountains are not only used for aesthetic purposes, but also to filter out the noise of a busy street. A fountain should be designed in proportion to the scale of the space and must be controlled during windy days. A participatory fountain that encourages interaction is best for a public space.

## Food

In order for a place to attract people, it must have food. A study by William Whyte showed that food attracts people. In the olden days, people considered eating in public a form of indecent exposure. Today, however, that is no longer the case. To increase the liveliness and activity within a public place, it is necessary to have food carts, kiosks and outdoor cafes.



*Pioneer Courthouse, Oregon* Figure 2.5

## Programs

A public place that lacks programs usually results in failure. Whether the programs are active or passive, they still attract people. People usually go to plazas and parks for concerts, live music, dances, art exhibits and so forth. It is necessary for a public place, such as a plaza, to have both temporary and permanent stages



*Outdoor concert, Google image* Figure 2.6



for performances. It is also worthwhile to mention that these stages should not impede traffic. Folding chairs and other seating facilities should be provided to invite people in and to retain them. All programs should be publicized and coordinated close to lunchtime in order to attract more patrons.

## Vending

Street vending is another element that attracts users. A public space should provide space for street vendors of atypical products. The Green market, for example, is a local farmer's market that strengthens community ties and promotes local farming practices. The Green market not only adds vitality to the plaza, but it also helps the growth of local economy.



*Spray Painting, Google image* Figure 2.7

*Source: People Places by LDA Dept. UC Berkeley*



# The Site

## Grand Army Plaza maps



These maps were extracted from the Competition Brief Figure 2.8



Figure 2.9



*Google Earth image of existing Grand Army Plaza*

The Grand Army Plaza is located in the center of four neighborhoods in Brooklyn. It is the social and geographic hub of Brooklyn's public enterprises and a cultural net that reaches out to all regions of the borough. Grand Army Plaza is home to striking architecture such as: the Spirit of the Army Arch, the Bailey Fountain, and

the grand entrance to Olmstead's greatest Prospect Park.

### **History**

At the end of the Ice Age, rock and soil deposited by glaciers created



Long Island. The Brooklyn borough including the Grand Army Plaza was the favored farming place for the Native Americans. Beginning of the 19th century, civic leaders began to transform Mount Prospect and the surrounding land into the city's reservoir. In 1866, the construction of Prospect Park led to the construction of the four surrounding neighborhoods. With the road system intersecting one end of Prospect Park, Grand Army Plaza soon became the hub and the connections to solve the traffic problem. The construction of the arch and other sculptures were built soon after. In 1926, the Plaza was renamed to Grand Army Plaza to celebrate the 60th anniversary of the end of Civil War. Soon after, the BMT subways, trolley lines, and automobiles emerged. Once the public transportations were established, neighborhoods began to get crowded and apartments and high rises were developed. By 1950s, the Grand Army Plaza reached its full potential as a cultural landmark, a public gathering space and a vital thoroughfare.

*Source: Prospect Park*

## **The Site**

The Grand Army Plaza is an eleven-acre, oval-shaped plaza at the intersection of Flatbush Avenue and four other major roads. Surrounded by five neighborhoods, Grand Army Plaza serves as a center for public facilities, transportation access, and as a junction for traffic that runs through the center of Brooklyn. The plaza consists of four concentric ellipses with berms

along the perimeter providing a visual and aural barrier to traffic noise. Along the berms and on the perimeter, there are three monumental sculptures of the Civil War heroes, Slocum and Warren. The berms are filled with groundcovers and trees that provide an attractive view for the local residents. Nestled in the middle of the busy roundabout is an oval shaped plaza, which is known by visitors as the Grand Army Plaza. At one foci of the plaza, there is a square monument, commemorating President Franklin D. Roosevelt. In the middle of the plaza lies the Bailey Fountain which is surrounded by slate paving and two rows of benches. The Bailey Fountain was a gift from a philanthropist named Bailey and his wife. The fountain contains a sculpture of a man, a woman and a child symbolizing family and fidelity. The Grand Army Plaza is also known for its famous Soldiers' and Sailor's Arch. The Arch stands on one of the focus points of the greater ellipse, anchoring the entrance to Prospect Park. The Arch is decorated with the Spirit of the Army emblem on the left column and the Spirit of the Navy emblem on the right column. On top of the Arch is a sculpture of Columbia arriving in a chariot epitomizing freedom and victory.

*Source: Competition Brief*

## **Neighborhood Profiles**

As a public space that is free and accessible to everyone, the Grand Army Plaza is situated in



the center of these four neighborhoods: Crown Height, Park Slope, Prospect Heights, and Prospect Leffert Heights. Separated by the plaza, the neighborhoods each have their own distinct characteristics and identities.

### Crown Heights

Crown Heights lies on the east side of the Grand Army Plaza and runs along the Eastern Parkway which is a green and spacious boulevard designed by Olmstead. This neighborhood is the center for the Lubavitcher Jewish Movement and for the West Indian community. The streets are festooned with ethnic restaurants from all over the world.

Figure 3.0



Crown Heights, image by GAPCo

The diversity of the Crown Heights community provides a unique experience for its residents. The mix of historic and run-down architecture adds to the beauty of the community. People who come to this community fall in love with the place for its dynamic atmosphere and ar-

chitecture. The community is usually quiet and peaceful, however, on different cultural holidays, the community becomes somewhat of a concert arena. Every year, Crown Heights and Prospect Heights collaborate to host a West Indian Day Parade. The major streets are closed and turned into a parade ground. The parade begins in Crown Heights, goes along Eastern Parkway and ends up at Grand Army Plaza. People in the community appreciate these types of celebrations and feel as if they have found a secret treasure in this community.



Crown Heights, image by Google Figure 3.1

### Park Slopes

Park Slope lies on the west side of the Grand Army Plaza and is separated by Flatbush Avenue. This is a community of historic brownstone roundhouses. The streets are filled with trees planted in straight rows. The community blocks are made up of restaurants, boutiques, and bars. Since the end of Civil War, Park Slope has been





a community with cultural variety. The community is made up predominantly by Caucasians, followed by Hispanics and with a small portion of other minorities. The residents of this community are generally wealthier than the other three surrounding communities. Over eighty percent of its population is over the age of 18. The community is structured strategically so that people can walk to and from work, church and school and also stop to have conversations with their neighbors. The community possesses a sense of intimacy characteristic of a small neighborhood in a cosmopolitan center.



*Park Slopes, image by GAPCo* Figure 3.2

## Prospect Heights

Prospect Heights lies on the north side of the Grand Army Plaza and is bounded by Flatbush Avenue to the west and Vanderbilt Avenue to the east. Prospect Heights is known for its cultural diversity despite its relative smallness of size. However, over the past several years, real estate development transformed the commu-

nity physically and demographically. The development of low priced condos has drawn many young professionals to the community.

Prospect Heights is predominantly made up of African American and Hispanic people. The median household income is thirty thousand dollars per year. About two thirds of its citizens are over the age of eighteen and most people in this community live in small apartment complexes. The citizens of this neighborhood love to raise their families there and although the quality of life in this neighborhood is not stellar, the di



*Prospect Heights, image by Google* Figure 3.3

versity and strong community ties make Prospect Heights stand out from the rest of the community.

Prospect Heights is currently facing a controversy over Downtown Brooklyn Atlantic Yard's Development Plan. The State of New York plans to turn the Atlantic Yard into skyscrapers and a basketball arena through eminent domain.



With this development, the landscape of this community will be transformed and the community also greatly impacted.

### **Prospect Lefferts Gardens**

Prospect Lefferts Gardens lies on the east side of Prospect Park and is bounded by Flatbush Avenue and Eastern Parkway. Prospect Lefferts Gardens is known as a small and friendly community, with a mix of old and new architecture. The key difference between Prospect Lefferts Gardens and its surrounding communities is that the community's bodegas are decorated with different types of graffiti. Housing in this neighborhood is more diverse in architectural style. Although the housing architecture is valuable, the lack of backyard space presents

Brooklyn. This community is walking distance from many of the borough's top cultural and recreational attractions. Prospect Park, the library, and the Botanical Garden are literally next door to Prospect Lefferts Gardens. The community is economically and racially diverse, consisting predominately of African-Americans and Caribbeans. Almost half of this community's population are first generation immigrants. About two thirds of the population is over the age of eighteen. Prospect Lefferts Gardens is home to a vital Caribbean community, with a long tradition of multiculturalism and progressive neighborhood activism. The neighborhood is currently experiencing a strong commercial renaissance.



*PLG, image by GAPCo*      Figure 3.4

a problem for many of the residents. In many cases, residents of the community get together and tear down the fences between their houses so that they can enjoy a larger garden.

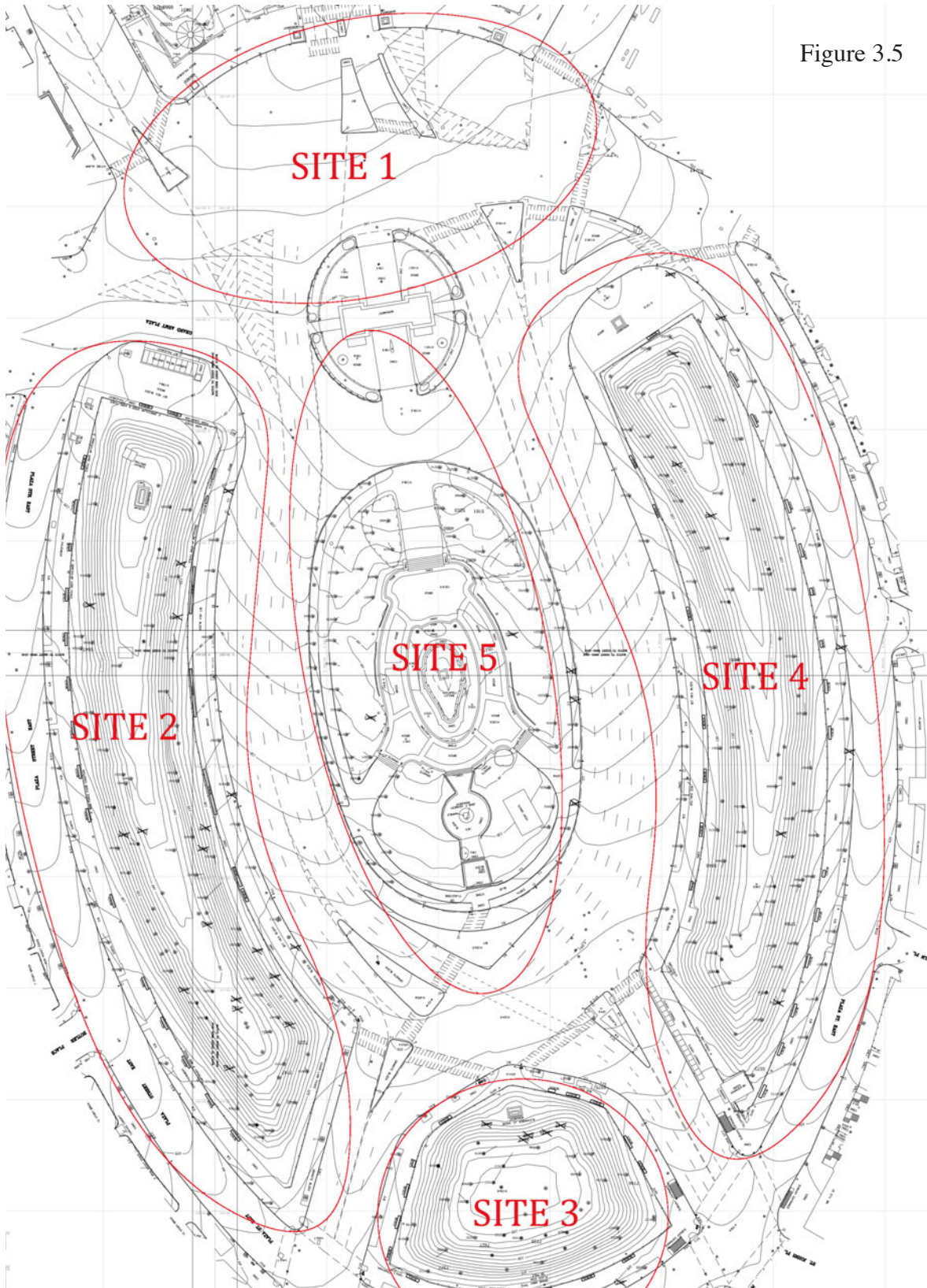
Prospect Lefferts Gardens is the hidden gem of

*Source: Competition Brief and NYC Dept. of City Planning*



# Fieldwork

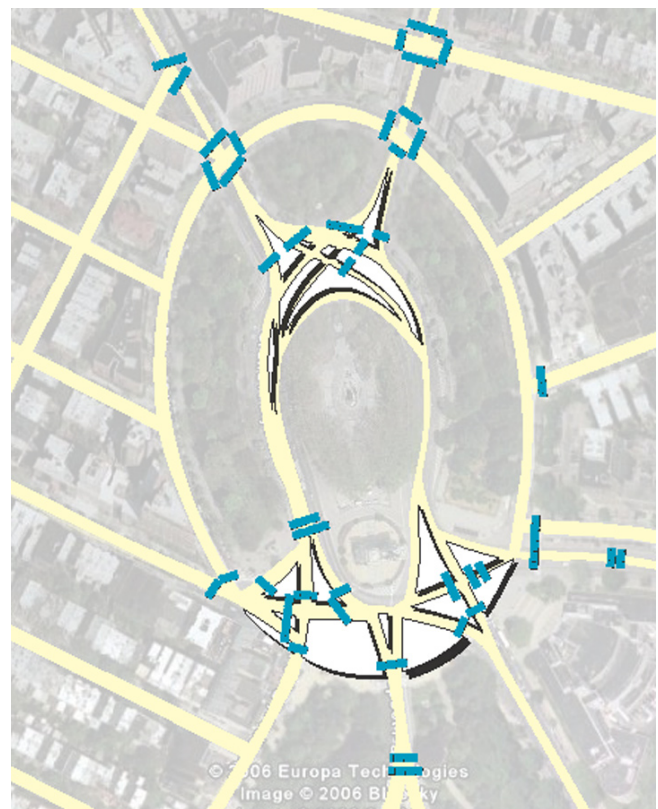
Figure 3.5



This section focuses on fieldwork and obtains community feedback in order to come up with theories and designing principles for the Grand Army Plaza. Like all design projects, getting to know the site's context and its user groups is an extremely important component. The fieldwork process begins with the designer documenting the existing successful and unsuccessful elements of the site as well as the problems. This information is obtained through site analysis and community feedback. Site analysis is the process in which the designer visits the site to make observations and assessments. In order to assess the quality of the existing design, a site inventory is a crucial beginning step. During site inventory, all features of the site that have been built are documented and evaluated by the designer. While conducting site analysis, the designer not only looks at the physical aspects of the site, but also looks at the cultural and experiential aspects as well.



**Existing Automobile Traffic** Figure 3.6



**Existing Pedestrian Traffic** Figure 3.7

*Source: automobile, pedestrian, and bike maps are extracted from Gelh Inc. analysis*





Figure 3.8

## Site Analysis

The Grand Army Plaza is 900 feet in width and 1300 feet in length. In reference to some other well known places, the Grand Army Plaza is about twice the size of New York’s Union Square and a little bigger than Place de l’Etoile in Paris. Due to its massive area, the plaza was divided into five sub-areas to allow for a comprehensive study.

## SITE 1

### The Good

The entrance to Prospect Park is dominated by asphalt and concrete. This area has the potential to be a beautiful green space or a public gathering space. Its proximity to Prospect Park, the Arch, and Brooklyn Public Library makes it the best candidate for a gathering space. The Green Market on Saturday is held at this location. Being in this space makes people feel connected to the city.

### The Bad

Despite its great potential, this area has many safety issues and unmet needs. Area 1 has a very wide entrance and roadways that can be used for automobile traffic. In general, if cars are allowed in this park space, it will push the people out of the park. The area does not have any space for bicyclists to enter or leave Prospect Park. Although the Green Market is held every Saturday, there are not enough activities or events to attract people to the area. There are no defined boundaries between the market place and surrounding streets. The lack of restrooms in the area has caused the homeless and other visitors to use the gazebo as a restroom. Accessing this area is difficult to do from all directions, hence, the place is almost always empty.



## SITE 2

### **The Good**

This area consists of the berm along the east side of the plaza. The library is a public attraction. This area also has a great public space that allows the residents along the berm to have a quiet space away from the noisy traffic. The area also has wide sidewalks and bike lanes to support sustainability. The abundance of trees and groundcovers provides an attractive site for residents to relax during the majority of the year.

### **The Bad**

Area 2, however, also has many problems that prevent it from being a great public place. The lack of signs and a crosswalk makes anyone that uses the space feel trapped. The berms themselves create a good view for the residents, but they also inhibit people from seeing more of the distant scene. The connections are not well-defined, thus people do not always know how to get from one place to another. This poor connection to the central plaza forces people to stay on the sides. Drivers tend to drive over the bicycle lane, creating danger for bicyclists. The bus stop also lacks shelter for the windiest corner of the plaza.

## SITE 3

### **The Good**

Site 3 is between Vanderbilt and Flatbush Avenue. This site is considered the gateway to the plaza because it has a good transit connection for buses and trains. It has large sidewalks and seating benches to accommodate pedestrians. The area is also an efficient route for vehicular traffic leading in and out of the plaza.

### **The Bad**

The overwhelming volume of vehicular traffic in site 3 is, however, a threatening factor for pedestrians in this area. This area raises a big concern regarding automobile traffic because often, drivers drive through the intersection even when the light is red. The area is not well connected to the arch and other public facilities. There are no attractions around that give people a reason to visit or stay.



## SITE 4

### **The Good**

Site 4 runs along the berm on the west side of the plaza. This site has great potential. It is close in proximity to public transit such as the bus and subway. The site has beautiful architecture and great historical significance. The place is beautifully green and very quiet and peaceful. The area also has the potential to be a great public place and an excellent connection to the central plaza.

### **The Bad**

The biggest drawback of this area is that it is extremely circuitous and therefore, confusing for people to navigate. Multiple intersections at the south end of the area disconnect the site from its surrounding public places. This area also experiences loud traffic noise from traffic on Flatbush Avenue and other local traffic. Cars take over bicycle lanes and nudge bicyclists out of the area. This site also lacks connection to the central island, thus making it impossible for people from this area to use the plaza. The trees and groundcovers are in poor condition and the berm is filled with weeds and rodents.

## SITE 5

### **The Good**

The central plaza is an island that splits Flatbush Avenue in two. It has two historically significant monuments that give this area its identity: the Arch and the Bailey Fountain. These features attract thousands of visitors every year. The Arch is a big attraction for wedding pictures and special occasions. In the winter, the fountain is decorated with lights to enliven the holiday spirit for the community and its visitors. The plaza has a big open space that can be turned into something that attracts even more users. The central plaza also has the potential to become the main connection for people to get from one place to another.

### **The Bad**

The main factor that currently prevents the central plaza from being an excellent public space is its inaccessibility. The plaza has many aesthetic features that attract people; however, its lack of crosswalks and shortage of entrances makes it seem like a deserted island. In order to visit the island, people have to wait for quite some time to cross the road. It is not uncommon for people to have to race against traffic to get to the middle plaza. The high volume of traffic surrounding the plaza makes its users feel unsafe and intruded upon. Another problem that the middle plaza has is the lack of shrubs or small trees to protect plaza visitors from the



strong winds that are often deflected from the building or surrounding traffic.

is dangerous for local traffic that is crossing and merging. Multiple turning lanes throughout the plaza confuse drivers and, in many cases, result in accidents.



*Traffic at GAP, image by author* Figure 3.9

## Overall Assessment

The assessments of the five individual sites have been used to create an overall assessment of the Grand Army Plaza. The result has been arranged into four different categories of problems: vehicular, bicycle, pedestrian, and aesthetic.

### Vehicular Problems

The current design of the Grand Army Plaza is an inefficient use of public land. The elliptical design has multiple intersections that are unnecessary and make it difficult for drivers to maneuver around the plaza. When driving around the ellipse, drivers have to change their turning radius constantly due to the sharper radius of the focus points. Having traffic running through Flatbush Avenue at high velocity

With Flatbush and Vanderbilt Avenue running through its center, the plaza is in the middle of much noise. The high volume of traffic on Flatbush Avenue can deafen a person's ears if he or she has to be in the middle plaza for a long period of time. The loud noise of commercial trucks and honking turns the plaza into a chaotic environment.

### Pedestrian Problems

Pedestrian movement throughout the plaza has become one of the greatest concerns. With traffic coming from different directions of the plaza, slicing it into pieces, pedestrians are left with no quiet place where they can enjoy the plaza's beauty. Getting from one place to another is a problem at the Grand Army Plaza. The lack of





direct crosswalks makes the user feel as if they are jumping from one island to another.



*No crosswalk, image by author*      Figure 4.0

The middle island of the plaza is one of the main points of connection for the public facilities. In theory, the central plaza should connect the subway station to the library, Prospect Park, Botanical Garden, and other facilities. However, the inadequate crosswalk and lack of connectivity to the middle island presents a safety problem for pedestrians. On the south end of the plaza, near the Arch, the crosswalks are indirect and counterintuitive. The lack of a tolerable crosswalk to and from the middle plaza creates an inherent danger for people that want to get to there. People who choose to cross the street in this area have to go through three or four different lights to get from one side of the street to the other. People, therefore, tend to cross the road illegally because it is faster and more direct. In order to do this, one has to watch for oncoming traffic while at the same time, racing through

the seven lanes of traffic—a daunting task to say the least. Two locations where people often cross illegally are the south end of Flatbush Avenue, the side of the library, and the north end of Flatbush Avenue that connects to the subway station.

The plaza has two long berms on the east and west side of the plaza and a short berm on the north side of the plaza. These berms were designed for aesthetic purposes and also to serve as a traffic noise barrier for the local residents. However, because of the rodent and access problems, these berms are a sore sight to residents. The berms are fenced around the perimeter with chain link fences preventing people from using the space. The lack of access to the berms takes away usable space from the public



*Berms at GAP, image by author*      Figure 4.1

In addition, the long mountainous berms prevent people who live in the middle blocks from seeing the activities in the plaza. Studies conducted by William White have shown that peo-



ple are less likely to use a public space if they are not able to see it from their house. In the case of the Grand Army Plaza, the majority of the community members live behind these berms and are as a result, unaware of the plaza's existence.

Figure 4.2



*Unused space (Warren), image by author*

Although the plaza has eleven acres of real estate, its inefficient use of space allows the public no space for gathering. The intersecting roads running across the plaza and the fenced-off berms take away a big portion of the plaza's real estate. The plaza also has pocket spaces that are not big enough to support public activities, thus resulting in abandonment.

### Bicycle Problems

The Grand Army Plaza remains a separate island, disconnected from the bicycle road system of Brooklyn. The middle island along with the north and south berms of the plaza do not have bicycle lanes. Currently, there are only bicycle lanes on the east and west side of the pla-

za. However, these bicycle lanes are often dominated by automobiles. As a result, bicyclists are discouraged from using bicycle lanes.



*No bike route, image by author* Figure 4.3

### Aesthetic problems

Despite the grand scale of the Arch and the Fountain, the plaza suffers many aesthetic problems. For starters, the domination of concrete and asphalt make the Grand Army Plaza look unattractive and unapproachable. The sidewalks are full of cracks and potholes. The berms are surrounded by rusty fences, beat up benches and malodorous trashcans. The berms are filled with weeds and twigs buried under layers of garbage. Many parts of the plaza are covered with dog litter and alcohol bottles. The lack of vegetation and comfortable sitting facilities discourage people from using the plaza.



*Sidewalk at GAP, image by author* Figure 4.4



## Interviews and Surveys

The community feedback was obtained through surveys and interviews. Roughly about 120 surveys were distributed to people in close proximity of the Grand Army Plaza and also to those that use the Brooklyn Public Library. Because the survey was distributed in person, the yield was over 80 percent. The semi-formal interviews were conducted at or near the Grand Army Plaza. There were about thirty interview attempts, and twenty-two people participated in the interview. The surveys and interviews were prepared with ten open-ended questions and were distributed to random members of the community varying widely in age. The questions were designed to focus primarily on what people like or dislike about the plaza and what would they want to see there in the future. The results of the survey and interview are presented below. The results below are not a true representation of what everyone in the community wants, however, they are somewhat reflective of what the majority of the community members want for their plaza.

### Survey Results

Everyone who responded to the survey has lived in the neighborhood for more than five years. They all knew of the Grand Army Plaza, however, some of them were unaware of its history. The majority of the people surveyed said that

they like the Arch and Bailey Fountain, and that they can see potential in the plaza's large size. About ninety percent of the people surveyed said that they do not like the traffic volume and the fact that there is so much space not being put to good use in the plaza. A small percentage said that they are not bothered by the traffic because they do not even consider the plaza as a place for fun. The older people were concerned with the lack of amenities provided in the plaza. They suggested that the plaza should have more benches and better-looking trashcans. One of the major issues for everyone was concerning safety. People said that they would not cross the street to get to the middle island because they were afraid of getting killed by cars. Some people pointed out that the middle plaza lacks aesthetic appeal, thus, not even worth the effort of crossing the street. About thirty percent of the people also mentioned the lack of bicycle routes as a main reason for not using the plaza. About sixty percent of the people use cars as their primary means of transportation. These people said that the reason that they refuse to use the plaza is due to the confusing road system and lack of parking around the plaza. Many people avoid driving into the plaza because of the heavy traffic and the confusing road signs. Everyone said that they love having Green Market, and that expansion of Green Market and other outdoor activities are highly desired. People suggested bringing in concerts



and other special events to enliven the space. The number of people who claimed to value the plaza's historical significance over its practicality were the same in proportion to the amount of people who said that they did not.

### **Interview Results**

The interviewees and the survey participants shared many of the same opinions. All the interviewees also said that they loved the Arch, fountain, and sculptures. They believed that all the above elements equated to the identity of the Grand Army Plaza. One gentleman, in his sixties, said that he loved the traffic. He said that watching traffic go by allows him to "relax and take the mind away from stressful things." Everyone's primary concern was safety and traffic. The development of the Basketball Arena and the high-rise buildings will worsen the Grand Army Plaza's traffic problem. Ten out of twenty-two interviewees expressed concern for the plaza's security. The lack of people and the tall berms make Grand Army Plaza a dangerous place to be. All the interviewees said that the crosswalks are confusing and make a trip from one place to another an arduous ordeal. About ten percent of the participants pointed out that the lack of a handicapped ramp and handicapped parking have prevented disabled people from visiting the plaza. Everyone agreed that the plaza does not have any activities except for the Green Market held once a week. They would like to have

a gathering space for community events. The majority of the interviewees suggested that the plaza should have more features and activities such as: drinking fountains, restrooms, food kiosks, art exhibits, concerts, festivals, live music, and larger, more frequent Green Markets. A large number of people showed interest in having a green plaza with spaces for picnicking, tanning, dog walking, and so forth. About sixty percent of people said that they would rather have a practical space full of activities than having an inaccessible historically significant place. All interviewees are willing to compromise on a practical yet historically significant plaza.



# Traffic Solutions

## Concept 1: Push Traffic Outside of Plaza

This concept forces all traffic outside of the oval. The berms are reduced or omitted to create a larger space for activities. The automobile traffic will be controlled by traffic signals that give priority to pedestrian.

### Pros

- Create a bigger plaza
- Provide motorist experience of the plaza

### Cons

- Create more traffic noise for all residents around plaza
- Provide poor connection to park and library
- Change plaza original design elements

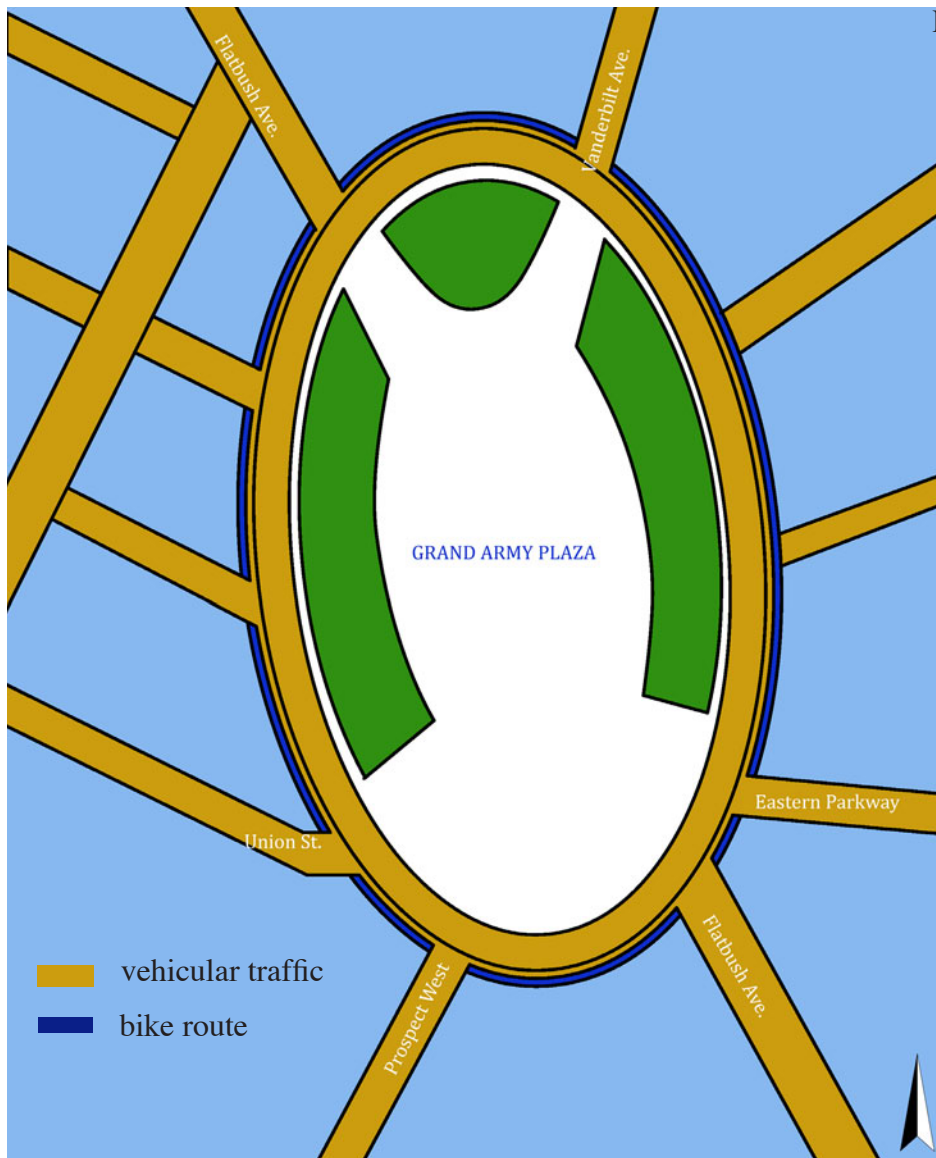


Figure 4.5



## Concept 2: Tunnel under plaza

The tunnel concept will eliminate vehicular traffic on plaza's surface. This concept reclaims the public space for the pedestrian activities.

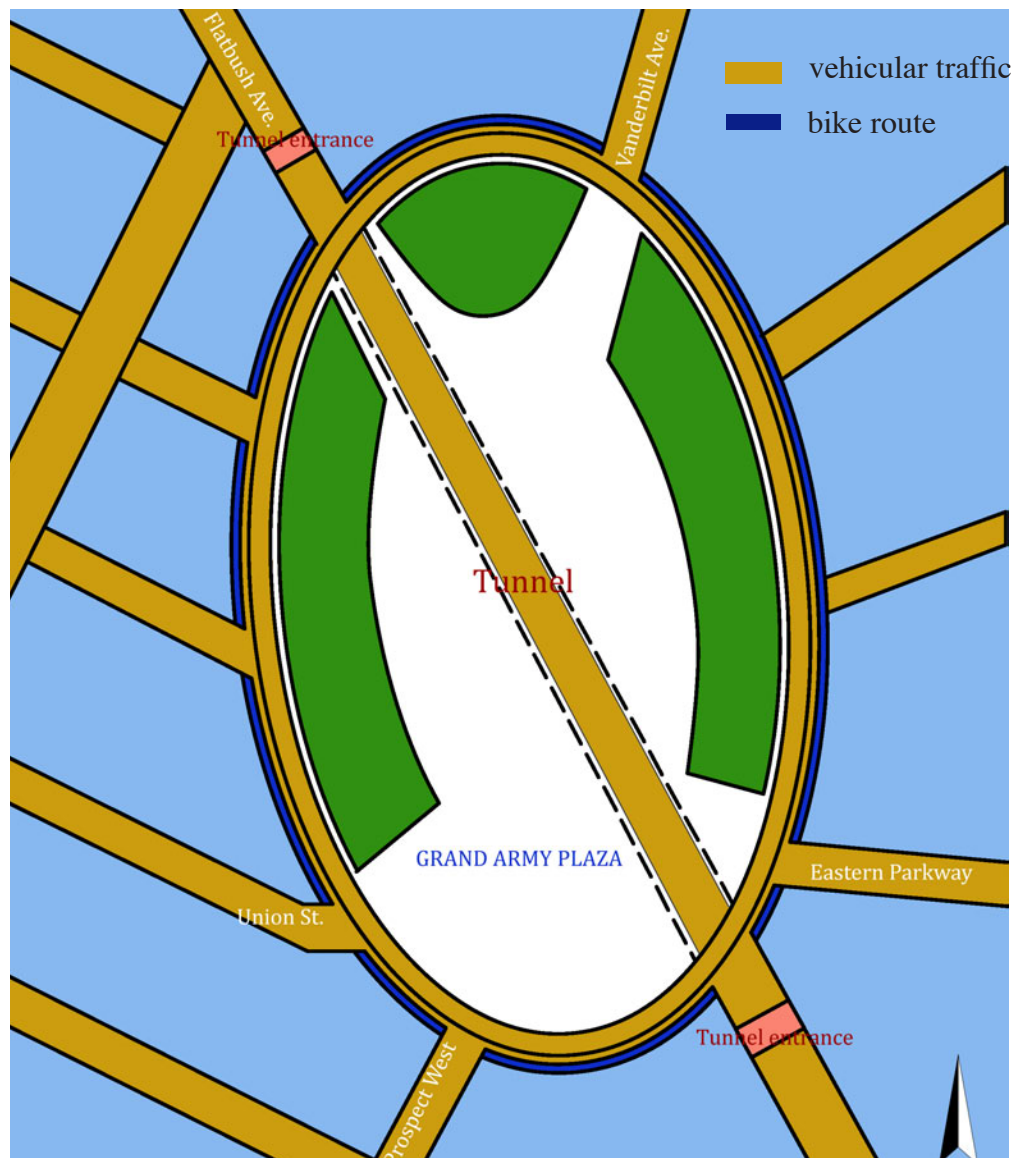
### Pros

- Complete pedestrian environment
- Increase space for activities
- Improve safety
- Create strong connection to public facilities and park
- Eliminate traffic noise at Grand Army Plaza

### Cons

- Incur high cost
- Take away motorist experience of the plaza
- Change land-use drastically

Figure 4.6



### Concept 3: Move Traffic to One Side

Moving traffic to one side allows the community on the opposite side to enjoy the public open space. This concept reinforces strong connections between the park and plaza.

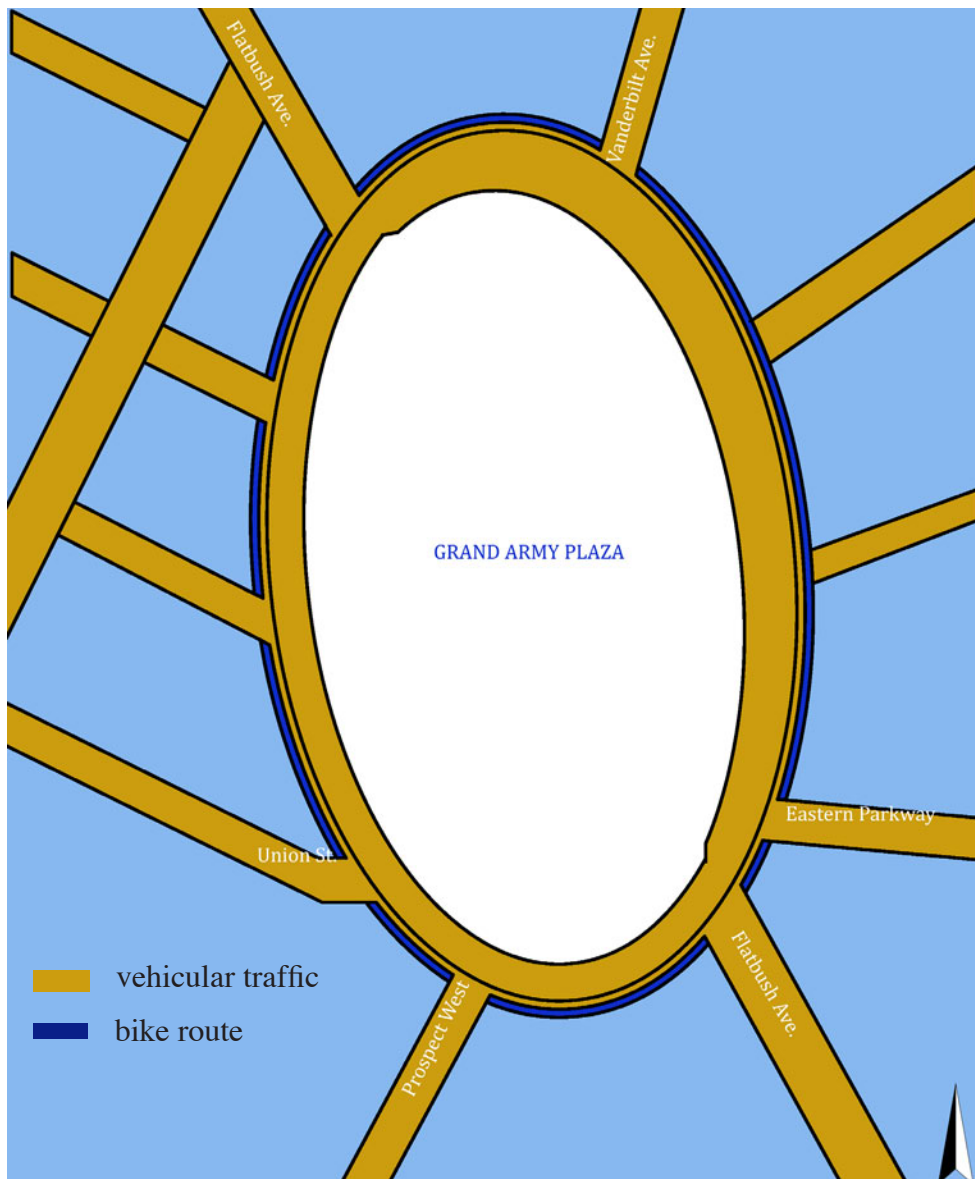
#### Pros

- Provide stronger connection to some public facilities
- Create larger public space

#### Cons

- Change the historical design elements
- Create traffic for residents
- Create more noise for residents

Figure 4.7



## Design Theories and Principles

The “Grand Army Plaza: Open Space opens minds” project aims to revitalize the spirit of public open space through successful precedence and innovative sustainable practices. This project focuses primarily on reclaiming the civic gathering space while simultaneously respecting the historically significant elements of the built environment. The reconstruction of the Grand Army Plaza will promote cultural awareness and appreciation through enlightening celebrations of different cultures. A wide variety of wholesome activities such as movie nights and Green Market will be offered in order to foster a strong bond between community members. The Memorial Lawn is an ideal location for hosting cultural and historical commemorations such as the 9/11 Memorial events, Veterans Day, Memorial Day, and so forth.

This project will turn Grand Army Plaza into a vast public space open for the people with hopes of bringing together and unifying the Brooklyn community. The main stage provides a lively atmosphere that promotes events by allowing a stage where artists can perform, adding more vivacity and life to the community. The public space not only allows the community to actively use and appreciate the natural environment but also serves as an ideal location to host meetings

and gatherings. Standing as a Civil War Memorial, the GAPOSOM project serves as a landmark that marks the importance and significance of history.

The project aims at driving out the traffic surrounding the Grand Army Plaza in order to accommodate the future evolution of cars – soon to be smaller and less dependent on oil. With a focus on saving and nurturing the environment, bike paths encourage civilians to bike or walk, and to use better modes of transportation that are less hazardous to the environment. The GAPOSOM project envisions an easier, more accessible route from Prospect Park to Grand Army Plaza by creating a large entryway between the two locations. A large wall of public art will allow the communities to integrate their masterpieces encouraging citizens to participate in the design process thus gaining a sense of ownership over the plaza. The next section will have a brief description of the programs offered through the Brooklyn Community Project in hopes of bettering and encouraging community involvement and promoting strong community ties:







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## Design Programs and Amenities

The success of a plaza depends heavily on the programs, activities, and events hosted by that plaza. The Grand Army Plaza is designed to support the community's present and future needs. The following programs are not only designed to fit the needs of the current lifestyle for Brooklyn community but also allows for expansion of future events and activities.

### Interactive water fountain

The water feature, in general, is one of the main forces that pull people into the space. During Brooklyn's hot and humid summers, the community benefits tremendously from the interactive Bailey Fountain. The fountain is moved from the center to the north end of the ellipse to create a focal point for one of the foci. The fountain is also strategically placed to help filter out the traffic noise by the tunnel and to act as a welcoming feature for people who come from



Figure 4.8

the subway station and from the north side. The fountain is also converted into an interactive fountain where children can enjoy themselves during hot summer days.

### Monuments

The Grand Army Plaza is home to many historically significant monuments. Throughout the plaza, there are monumental sculptures of Civil War heroes. These monuments attract visitors to the Grand Army Plaza and give it its identity. People like using the monuments as their background for photographic opportunities. The grandeur sculptures are also meeting locations for community members.



Figure 4.9

### Outdoor concerts

The outdoor concert venues enliven the Grand Army Plaza. The plaza has a main stage and multiple subspaces that can be converted into smaller performing stages. The venues are the main tools for community building. The venues



function as a means of gathering.

### **Green Market**

The relocation and enhancement of the Green Market space provides an opportunity for the Brooklyn community to expand even larger. The Green Market is a healthy tradition that is unique to Brooklyn, and it should be preserved and promoted. The Green Market not only helps the local market economy, but also helps to build a stronger bond between community members. People in the community love to go to the Green Market to get fresh produce but they also love to go there to interact and chat with their neighbors.

### **Bike rental**

With the current oil crisis, people are turning to bicycles as their alternative mode of transportation. The bicycle rental center will promote the use of bicycles, which in turn will help reduce emission of global warming gases. Promoting the use of bicycles in the city of Brooklyn will help raise awareness for bicyclists and help them reclaim the lanes that are now dominated



Figure 5.0

by automobiles. Bicycling will also encourage the use of the plaza and of Prospect Park.

### **Food vendors**

Food is an element that attracts users to a place. By adding food to the Grand Army Plaza, more people will be drawn into the plaza. Food vendors are a unique element that represents the area's demographics. Although we see food vendors in many public places, the types of food sold at these public places are rarely ever-unique ethnic foods that cannot be found at any other place. Thus, exotic food vendors will be an attraction for visitors and people who are tired of typical food.

### **Outdoor cafes**

Outdoor cafes have a similar effect as the Food Vendors. An outdoor café is a casual “hangout” place for friends, or also a place where business colleagues can meet and talk about business.



Figure 5.1



### **Sunbathing lawns**

The high demand for housing is taking over the green space in Brooklyn. Most of the people in the surrounding communities do not have the luxury of having a green lawn. Thus, the lawns at the Grand Army Plaza provide these unfortunate residents with a place to escape from the concrete and asphalt and enjoy the luxury of nature. The lawns are important aesthetically because they provide a visual relief from the concrete and the asphalt of the surrounding environment. These lawns provide the community members a place for picnics and an opportunity to socialize with one another.

### **Art Wall**

The wall along the edge of the tunnel is used to showcase artwork from the four different communities. Pieces of artwork will take the form of drawings or paintings and will be incorporated to representing the ties between the ethnically diverse communities. In addition to showcasing harmony between the communities, the art wall creates a sense of ownership and community participation for the people in these communities. With a sense of ownership, people are inclined to use the space and take good care of it.

### **Information booth**

Due to its tremendous historical significance, the plaza must have an information center to educate the public. As the plaza becomes a per-

forming arts center, the information booth can be a useful resource for people to inquire about current events and upcoming activities. The information booth will provide people with information about the Grand Army Plaza, Prospect Park, Botanical Gardens and other public facilities in the center of Brooklyn.

### **Memorial lawn**

The memorial lawn replaces the middle berm of the original design. It serves as commemorating location during various holidays. The memorial lawn and other lawns throughout the plaza are not only friendly to the users but also friendly to the environment; these lawns are irrigated with gray water captured from impervious surfaces of the plaza.

### **Restrooms and Drinking Fountains**

The Grand Army Plaza will hold people longer with the addition of restrooms and drinking fountains. The introduction of outdoor cafes, food vending, and performance stages create an even higher demand for public restrooms.

### **Local artists exhibits**

The open spaces throughout the plaza give the local artists a chance to showcase their talents. The spaces are open to various types of artists who may want to display their drawings, paintings and/or sculptures, or even do a dance or a vocal performance. These spaces simultane-





ously provide aspiring artists an opportunity to shine and enliven the plaza.

### **Cultural celebration ground**

Brooklyn prides itself as the most ethnically diverse community across the nation. Every community in the borough of Brooklyn has immigrants from all over the world. Every year, ethnic communities join forces to host parades and celebrations during cultural holidays. The spacious and centralized Grand Army Plaza is the perfect spot for hosting cultural celebrations. These celebrations bring the community closer and help promote cultural awareness.



Figure 5.2

### **Large and small meeting space**

The plaza has many types of meeting spaces that support a wide range of activities. The plaza can accommodate large public event and also small group activities.

### **Community movie night**

The center stage is equipped with power out-

lets and theater equipment for community movie nights. The facility will be used for both entertainment and promotional purposes. The theater is a place for friends and family to spend time outside of their homes. The movie theater also allows people to enjoy entertainment free of charge; this is a way of giving back to and strengthening the community.

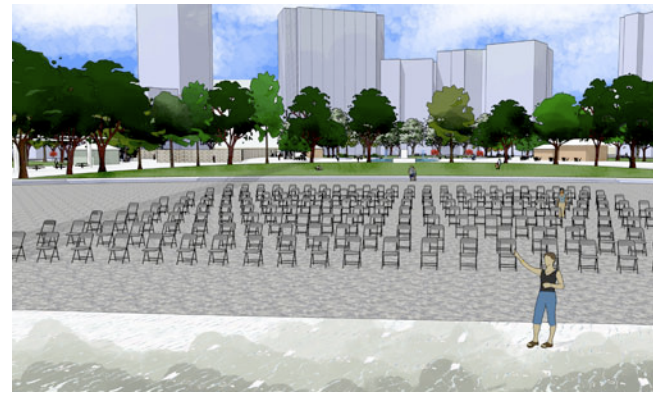


Figure 5.3

### **Flexible space for special events**

In addition to the programmed events, the plaza is flexible space that can easily be put in use for special events such as annual car shows, art galas, battles between bands, dog shows, and so forth. The space is flexible and ready to be converted to fit seasonal needs. In the winter, for example, the space can be themed “Christmas in the Park” and feature an ice-skating rink, a Christmas tree sale, and so forth.

### **Bent Tunnel Entrance**

Due to the existing of underground traffic (subway) The tunnel entrance was bent to accom-



modate both transportation systems and to help reduce the construction cost.



## Afterthoughts

It is my goal as a landscape architecture student to use the knowledge that I have obtained from the Landscape Architecture curriculum to invent a successful public space. Creating a successful public space is an extremely difficult task, as I was able to experience this challenge firsthand through the design of Grand Army Plaza. Nonetheless, I believe it was a fruitful learning experience that allowed me to put the designing theories and principles to work. I believe that by taking on a challenging project, the designer is forced to think of a grand solution that will satisfy the social, cultural, and experiential components for that particular space. Through the design process, I was able to learn how to work with different components such as traffic engineering, micro-climate, aesthetics and so forth. I have been exposed to different theories and principles with the help of professionals that I have encountered. In addition, I have learned to conduct public meetings and interact with people from different backgrounds. This project not only taught me how to design for people but also taught me the social and analytical skills necessary to become a successful designer.

It is my hope that the Grand Army Plaza design will turn into a reality. Furthermore, I hope that you, as the reader, has enjoyed and gained an appreciation for public spaces. And most importantly, I hope that this project will serve as

a tool for future designers who hope to invent a successful public space.



## Glossary

**Berm** -A mound or bank of earth, used especially as a barrier or to provide insulation.  
(Dictionary.com 2008)

**Community Participatory Design and Planning** - A design process in which the designer involves the community participation and uses community's feedback (LDA 180 Lecture)

**Green Market** - locally grown produce market held outside, also known as Farmer's market

**Sustainability** (Multiple Definitions):

- Capable of being continued with minimal long-term effect on the environment (Dictionary.com, 2007).
- Meeting the needs of the present without compromising the ability of future generations to meet their own needs (Browning, et al., 1998).
- An understanding of resources not as commodities to be produced and sold, bought and used, but as complex systems that must, through judicious management, be kept in a state of equilibrium (Francis & Reimann, 1999).
- A lasting and nondestructive way to live on this Earth (Thompson, 2000).

**Thoroughfare** - a road, street, or the like, that leads at each end into another street(Dictionary.com 2008)



## Bibliography

Carr, Stephen, Mark Francis, Leane Rivlin, and Andrew M. Stone. 1992.  
Public Space. Cambridge: Cambridge University Press.

Design Trust for Public Space. Reinventing Grand Army Plaza. 2008  
<<http://www.designtrust.org/projects/gap/>>

Gehl, Jan. Brooklyn Grand Army Plaza. New York, NY. 2006.

Marcus, Clare Cooper. 1976. People Places. Department of Landscape  
Architecture, University of California at Berkeley.

New York City Department of City Planning Community Profiles, May 2007  
< <http://www.nyc.gov/html/dcp/html/lucds/cdstart.shtml>>

PPS.(2007) Rethinking Grand Army Plaza. Grand Army Plaza Coalition  
Brooklyn, New York

Prospect Park.(2007) Brooklyn New York.  
< <http://www.prospectpark.org>>

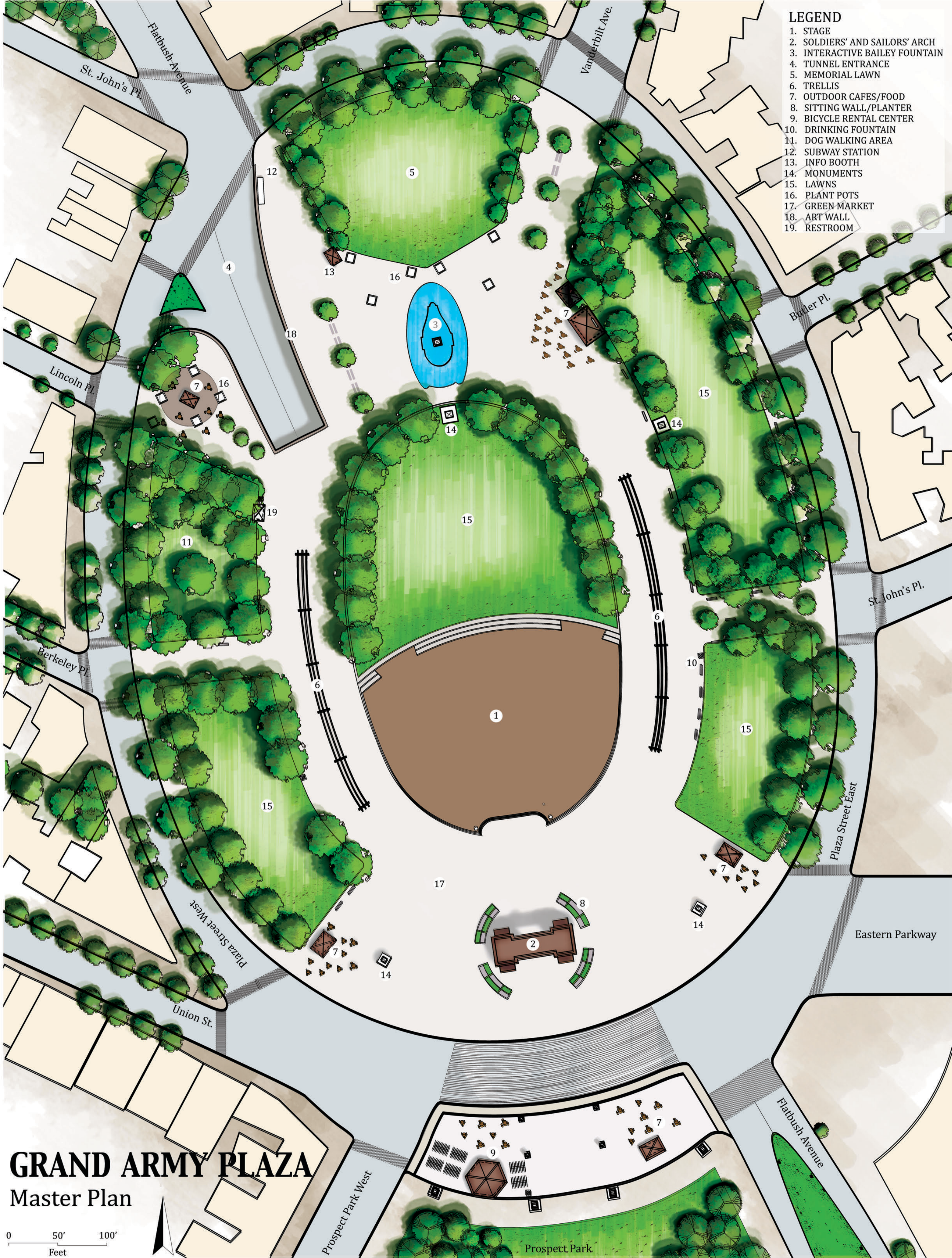
Whyte, William. The Social Life of Small Urban Spaces. 1980. Washington, D.C.: The Conservation  
Foundation.

Images obtained from FLICKR.com, Google.com and courtesy of PPS

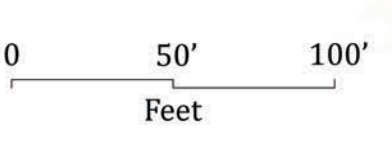


**LEGEND**

- 1. STAGE
- 2. SOLDIERS' AND SAILORS' ARCH
- 3. INTERACTIVE BAILEY FOUNTAIN
- 4. TUNNEL ENTRANCE
- 5. MEMORIAL LAWN
- 6. TRELLIS
- 7. OUTDOOR CAFES/FOOD
- 8. SITTING WALL/PLANTER
- 9. BICYCLE RENTAL CENTER
- 10. DRINKING FOUNTAIN
- 11. DOG WALKING AREA
- 12. SUBWAY STATION
- 13. INFO BOOTH
- 14. MONUMENTS
- 15. LAWNS
- 16. PLANT POTS
- 17. GREEN MARKET
- 18. ART WALL
- 19. RESTROOM



**GRAND ARMY PLAZA**  
Master Plan



# BIRDS EYE VIEW



Open Space opens minds







Birds eye view from northeast



Facing stage perspective



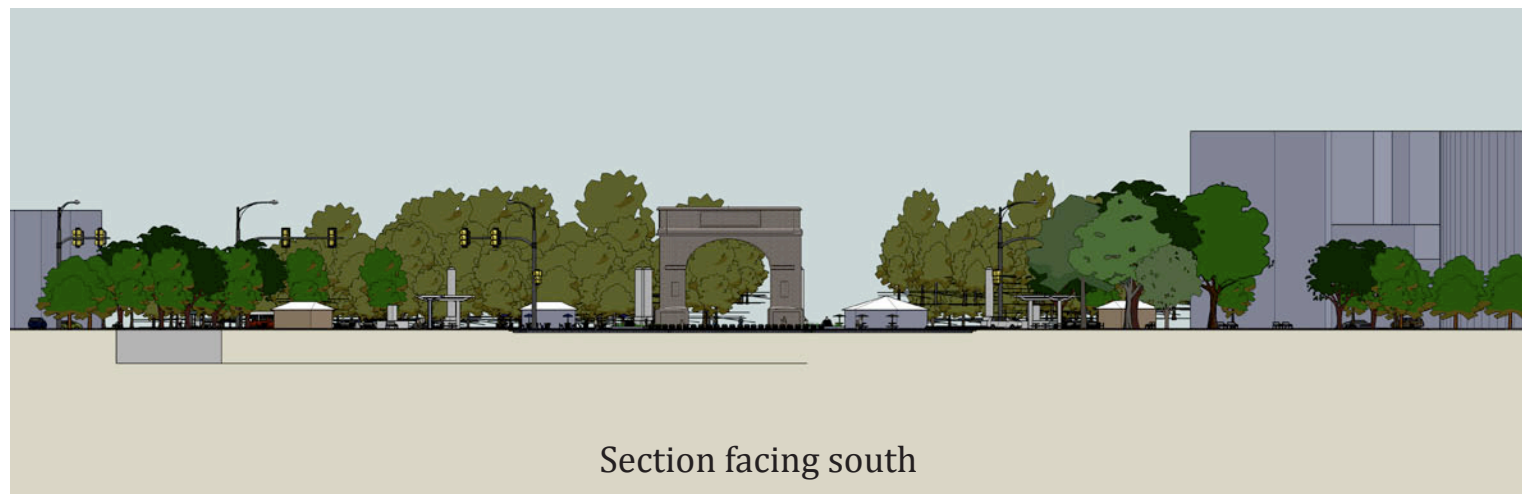
Section facing east



Facing Bailey Fountain



Facing south near restroom



Section facing south



Looking north at Trellis



Facing south at tunnel entrance

