

Creating New Public Spaces. The New York City Plaza Program

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Abstract

New York City was the first city in the US to establish a pedestrian plaza program to create public spaces in neighbourhoods that have insufficient public space in 2009. The Department of Transportation (DOT) operates the program in partnership with local neighbourhood organizations to create these spaces through an incremental process that can be used for a variety of activities. In the research reported here the process of creating these spaces was documented through interviews with government officials and scrutiny of government documents and five plazas were studied in depth in Brooklyn and Queens. Sources of data included: sit observations, surveys with occupants, and interviews with sponsors and city government officials. The findings demonstrate that the process of designing and managing the plazas poses significant challenges for the DOT and for the sponsoring organizations but once these challenges are met, the plazas meet an important need in urban neighbourhoods that previously lacked sufficient public space for recreation.

Keywords: public space, placemaking, pedestrian plaza, partnership, community involvement

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Introduction

Pedestrian plazas are created in underused street spaces or in spaces that are not used to their full potential. They are created through public-private partnerships between city governments and nonprofit organizations and through a three-stage process: (1) a one-day plaza; (2) an interim plaza; and (3) a permanent plaza. After the New York City program was launched in 2009, city governments in San Francisco, Philadelphia, and Los Angeles, launched similar programs typically in transportation departments and collaborations with other city and non-governmental agencies. The DOT assumes responsibility for designing and building the plaza while the sponsor partner typically undertakes the management, maintenance, and programming of the plaza once it is built. Previous researchers have evaluated pedestrian plaza programs in New York and San Francisco (Gehl Studio and J Max Bond Center, 2015; Kim, 2016; NYC Department of Transportation, 2011). Only a few studies of pedestrian plazas in New York City resulted in peer-reviewed journal articles (Kang, 2019; Radywyl and Biggs, 2013; Rowe, 2013; Taylor, 2018; Teder, 2019). These studies focused exclusively on pedestrian rights-of-way, the impact of placemaking on place attachment, and the effects of pedestrian plazas on vehicle-to-pedestrian collisions.

The New York City Department of Transportation (DOT) that was serving under the Bloomberg administration then launched the plaza program in 2009. It is officially the first plaza program in the US. The political agenda of the Bloomberg administration in New York City at that time and its reflection to the plaza program is also absent in the existing literature especially when it is considered that there is a handful of studies about other several waterfront and greenspace projects of the Bloomberg administration in the context of neoliberal urban developments (Schaller and Novy, 2010; Brash, 2012; Curran and Hamilton, 2012; Lang and Rothenberg, 2017).

The absence of peer-reviewed articles about the planning, design and use of pedestrian plazas suggests the value of the present study. The goal of the research is to provide practical information to the relevant city agencies for improving the quality of pedestrian plazas and the process for creating them.

In order to meet that goal, several steps were followed in conducting the research for this study. First, in Section 1 below, the functioning of the New York City Plaza Program is documented using on-line DOT documents. The criteria used for selecting the study sites and the data collection methods are described in Section 2. Sections 3 through 5 present the findings. Section 6 is a discussion of the findings. Finally, implications from the study present suggestions for the possible improvements that can be done in New York's Pedestrian Plaza Program.

New York City Plaza Program

New York's Department of Transportation, which served under the Bloomberg administration from 2002 to 2013, officially initiated the plaza program in 2009. The goal of the program is to transform underused streets into pedestrian plazas in order to ensure that all New Yorkers have access to a good quality public space within a ten-minute walk of their homes. The DOT defines a pedestrian plaza as

“an area designated by the DOT for pedestrian circulation, use, and enjoyment of DOT property, including but not limited to property mapped as public space

or property within the bed of a roadway, and which may contain amenities such as tables, seating, trees, plants, lighting, bike racks or public art” (2) (NYC Department of Transportation, 2021).

The program’s first project was the Times Square Plaza created during the first year of the program. In 2022, the DOT listed a total of 73 plazas that are either completed or in development (NYC Department of Transportation, 2021).

Local community organizations or institutions that agree to be sponsor partners of the plaza, propose new plaza sites. Before applying to the DOT, they must garner neighbourhood support and in order to demonstrate that support, they submit several community support letters as well as proof of their financial capacity to manage a plaza to the DOT. The DOT officials evaluate plaza applications, using 100-point scale to measure: available open space, community initiative, site context, organizational and income capacity of the applicant organization (NYC Department of Transportation, 2021).

The process of creating a plaza proceeds through three phases. There is: first, a one-day plaza, then an interim materials plaza, and finally a permanent plaza. The first phase is called a "one-day plaza" because it is a single-day event. The DOT and the sponsor partner use this event as an opportunity to ask the community for their opinions about the proposed plaza. In the second phase, called "interim materials plaza," the DOT observes people’s use of the design elements of the plaza, takes traffic counts, and monitors technical and financial capacity of the sponsor partner to operate a plaza. Interim materials plazas are designed with temporary materials and furniture, allowing easy installation and de-installation. During the interim phase several public workshops are held to for the public to participate in designing the permanent plaza.

"Permanent materials plaza" is the final phase. In this phase, the design and construction is assumed by the DOT with the Design and Construction Department (DDC); the sponsor partner takes full responsibility for managing, operating, and maintaining the new public space (NYC Department of Transportation, 2021). Upon completion of the permanent design phase, the final design must receive approval from the community board of the neighbourhood where the plaza is located. If the project faces objections from the community board, the DOT may delay or even cancel it. Concerns often revolve around issues such as the loss of parking spaces due to the creation of a pedestrian plaza and worries about potential gentrification in the neighbourhood following its implementation. For instance, in the case of Columbia University Medical Centre’s proposed pedestrian plaza in Washington Heights, some residents expressed high concerns about the elimination of seventeen parking spots (Krisel, 2017). Additionally, some residents believed that the presence of Columbia University Medical Centre and their proposed plaza could contribute to gentrification in the area (Krisel, 2017). In another instance, during the temporary placement of a plaza in Queens, many business owners opposed a permanent plaza, as they believed that the street closure for the temporary plaza had already negatively impacted their income (Gronda, 2014).

Site Selection and Method

Sites for this study were chosen using the DOT’s Plaza priority maps. These maps identify those neighbourhoods that have a significant need for open public space. Neighbourhoods in these areas are more likely than other neighbourhoods to have a

pedestrian plaza. Initially, nineteen pedestrian plazas were selected through the identification of those pedestrian plazas that are in or near the DOT's Plaza priority areas. Fifteen pedestrian plazas were disqualified because they were in the temporary plaza phase at that time or under construction, or operated without a sponsor. In the end, five pedestrian plazas qualified as study sites: 71st Avenue Plaza in Queens; Corona Plaza in Queens; and Knickerbocker Plaza, Kensington Plaza, and Avenue C Plaza in Brooklyn.

Data was collected during 2018 and 2019 as part of dissertation research, using three methods. Interviews were conducted with: the DOT and DDC officials; managers of plazas; and staff in other organizations who had been involved in the design, maintenance, and programming of the plazas. Site observations and surveys were other two methods in this research. During site observations the number, location, and activities of plaza occupants were recorded. Surveys with occupants provided data about who the users of the plaza and how they used it.

Observation instruments used in previous studies of pedestrian plazas in New York City and San Francisco were used in this study as well (Gehl Studio and J Max Bond Centre, 2015; Teder, 2018). The researcher recorded the number of users, the number of stationary activities, and the quality and condition of the plaza design. Stationary activities included: eating/drinking, chatting, people-watching, use of electronic devices, and commercial activities. The researcher also identified four postures: standing, formal sitting, improvised sitting, and lying down and counted the number of people in these positions. Site observations were conducted during weekday and weekend afternoons (12 pm-1 pm and 5 pm-6 pm) between June and August of 2018, and May 2019 and September 2019. The observational data were collected from five case study sites on a total of 38 different days.

The survey questions were designed to determine whom the pedestrian plazas were serving and how these plazas were perceived by their users. Survey questions were developed to identify and measure user demographics, walking distance from the plaza (through zip code), and socializing. In 2019, a total of 240 user surveys were conducted concurrently with the site observations on weekdays and weekends between 2 pm and 4 pm. There were several observation sessions in each plaza, enabling the researcher to get familiar with the faces who regularly visit the plazas. Therefore, respondents were chosen primarily from the regulars who were willing to answer questions.

Seventeen semi-structured interviews were conducted with people from three types of organizations: government organizations, sponsor partner organizations, and supporting partner organizations. Government organizations included the DOT, the DDC, and the New York Police Department. Interviews were conducted with three plaza managers (71st Avenue Plaza, Corona Plaza, and Knickerbocker Plaza), a former plaza manager, and one of the volunteer founders of Kensington Plaza and Avenue C Plaza. Different interview protocols and questions were used for interviewees in the different types of organizations. Informal and unstructured interviews were conducted with 28 people in case study sites.

Findings: Partnerships

Sponsor partners are typically non-government organizations with the exception the NYC Department of Parks and Recreation that sponsor a few plazas. Non-profit

organizations include: business improvement districts (BIDs), development corporations, merchant associations, and neighbourhood groups. In 2022, there were 73 interim and permanent plazas; and 68 of those had sponsor partners. The DOT has partnerships with 52 different sponsor partners including governmental organizations (six plazas), private companies (four plazas), and non-profit organizations (58 plazas). The types of sponsoring organizations vary across the plazas studied. They include a community corporation, a development corporation, a business improvement district, and a volunteer neighbourhood group. For the DOT, regardless of their type, a sponsor partner has to demonstrate to the DOT its financial and operational capacity to be a partner. The temporary phase is very significant for sponsor partners because they need to demonstrate their capacity to the DOT during this stage.

RiseBoro Community Corporation is the sponsor partner of Knickerbocker Plaza mainly provides housing services to the elderly. During a traffic calming study at the intersection of Myrtle Avenue and Knickerbocker Avenue, administrators in the RiseBoro discovered the opportunity presented by that intersection. Shortly after the intersection was completed, in 2015, the RiseBoro applied to the DOT to create a pedestrian plaza there. The plaza almost had no temporary phase. The manager of the plaza interviewed in 2019 reported that she was not there at the time but she knows that there were a couple of one-day plaza events to receive community feedback. The manager also said that the main reason to establish a pedestrian plaza there was to invent a socially active place for the residents.

Kensington Plaza was also created also as the result of the traffic calming project. It is sponsored by the Kensington Stewards, a group of volunteers from the Kensington neighbourhoods of Brooklyn. In 2010, the DOT did a curb extension into the sidewalk at the intersection of Church Street and Beverly Road in Kensington. As a result of this extension, the sidewalk widened and created an empty space for seating. When some community members noticed the opportunity, they agreed to propose a plaza for that location in 2012. Two of those community members who have had an active role in the creation and management of Kensington Plaza and Avenue C Plaza were interviewed in 2019. They reported having several community meetings to discuss creating a plaza in their neighbourhood, resulting the support of many residents. When the DOT approved a pedestrian plaza on the site and located temporary seating materials, a group of about 10 people from the community (later called the Kensington Stewards) created a schedule for cleaning the plaza. Each day one member of the group was appointed for the first year of the plaza. After successful management and maintenance of Kensington Plaza, another plaza called Avenue C Plaza was created in proximity temporarily in 2015 and became permanent in 2017. While all other plaza sponsors in this study receive regular income from taxpayers and/or donors and therefore hire paid staff to manage their plazas, the Kensington Stewards is composed solely of volunteers. The Corona Plaza site was already a very active place for the community before the plaza was established thanks to the Queens Museum's programming of community events and festivals on the site. In addition, the site was the only available space for creating a new public space in the neighbourhood. So, the DOT decided to create a pedestrian plaza on the site in 2011 and asked the Queens Museum to be the sponsor partner. However, the Queens Museum chose to remain a programming partner, meaning that Queens Museum will continue to organize events and festivals as a programming partner. At this point, the Queens Economic Development Corporation

(QEDC) stepped up and filed the plaza application for Corona Plaza, becoming the sponsor partner. After a five-year temporary phase Corona Plaza became permanent. The manager of Corona Plaza interviewed in 2019 informed that their initial reason for agreeing to be the sponsor partner was to vitalize the local economy in the neighbourhood.

The Myrtle Avenue Business Improvement District (BID) in Queens, established in 1988, is the sponsor partner for the 71st Avenue Plaza. According to the manager of 71st Avenue Plaza interviewed in 2019, their primary motive for creating the plaza was to initiate economic vitality in the neighbourhood and creating a public space on that location was always in the organization's agenda. The manager explained that the Myrtle Avenue BID wanted to build a plaza on the site in the late 1980s under the Capital Improvement Projects by NYC's Commercial Revitalization Program. However, the plaza project was not accomplished at the time. In 2012, the BID recognized opportunity the NYC Plaza Program provided and applied for a plaza. Subsequently, the Myrtle Avenue BID Queens created another plaza in the same neighbourhood.

Findings: Design Process and Management

The temporary phase of plaza development presents opportunities for all parties to be involved in the creation of a pedestrian plaza. According to staff member interviewed at the DOT in 2019, the temporary phase is valuable because it provides opportunities to collect data and to foresee possible risks before a capital investment is made. At each temporary plaza, the DOT measures several features such as amount of traffic and parking, emergency response time and pedestrian flow through on-site observations. During that stage, the sponsor partner can test its organizational and financial capacities for maintaining and managing the plaza before it agrees the partner with the DOT permanently. Finally, through the public workshops held during temporary phase, the DOT can ensure that the community is supportive.

Along with the sponsor partner and members of the community, city officials from the DOT and the DDC attend public workshops which typically occur two or three times during the temporary phase. City officials collect information for a potential plaza design using mapping techniques, surveys, and informal conversations with community members. At the end of the process, the DDC officials propose a design proposal that must be approved by the community board of each plaza site. Even though the design process includes input from the community, interviews with the staff from the DOT and the DDC and plaza managers indicated that the aim for the permanent design was to keep the design simple and functional through standard design materials and elements. According to the DOT official interviewed in 2019, the reason of this practice is to minimize the maintenance work and costs for sponsor partners.

The interviewee from the DOT mentioned that in the first few years of the program, they created elaborate plaza designs with distinctive features such as water fountains and permanent artwork. Many sponsor partners who were mostly non-profit organizations and even some BIDs had difficulties meeting the elevated maintenance costs of expensive plaza furniture and materials. The interviewee from the DOT explained:

So, instead of our partners to pay for a contractor to come in and replace broken parts, the DOT crews can come in and replace that (because they are standard DOT materials). And so, that's done a lot to promote equity throughout the city.

Keeping maintenance costs low is especially important for sponsor partners with limited financial resources such as The Kensington Stewards. Members of The Kensington Stewards described challenges they faced during the temporary phases of the Avenue C Plaza development. The community decided to design Avenue C Plaza through a competition. The winning design included a small pond and an area of concrete surface to be painted. After reviewing the design based on the city government's design and construction standards, the DDC asked the sponsor partner to remove the pond and the painted concrete elements from the design. But it resulted withdrawal of the winning design by the local artist. As a result of this situation, the DDC designers finalized a design for Avenue C Plaza, offered a completely different design than the winning project, including plaza furniture and elements that were typically used in other plazas. In the beginning, this situation initially created dissatisfaction among the Kensington Stewards and in the community. However, interviewees from The Kensington Stewards reported they realized later that if the winning design had been built, it would have been too difficult for them to maintain.

The manager of Corona Plaza interviewed in 2019 reported that even though city official were very helpful during the design process they could not always meet community requests for the final design. A proposed amphitheatre in Corona Plaza is one example. Given the cultural importance of Corona Plaza as a place for festivals and community events, the DDC proposed an amphitheatre. The community of a church in the vicinity opposed this idea because amphitheatre would be very close to the church, possibly causing too much noise. After several attempts to relocate the amphitheatre, the final design consisted of a terrace instead of an amphitheatre in the same location with the standard plaza benches on top of it. Through this change, it was hoped that the terrace could function as a stage for community events.

Staff members interviewed at the DDC informed that while designing permanent plazas they consider the character and context of neighbourhood and the needs of the neighbourhoods. However, site observations revealed that the DDC used standard design features in all the case study plaza with the exception of a few design features such as light poles in the historic district of 71st Avenue Plaza. Interviews with sponsor partners and city officials revealed that in most cases, they give sponsor partners the materials catalogue for them to choose furniture and materials for the plaza. According to a staff member interviewed at the DDC, sponsor partners with more funds used to be able to choose design materials and furniture outside of the catalogue. Recently, however, the DOT requires partners to choose only from the catalogue because past experience showed that some of these sponsor partners also had trouble meeting the increased maintenance costs.

Plaza seating is a clear visual sign for designating the site as a pedestrian plaza. The required use of the standard DOT seating leaves only a few options to the plaza designers: either the standard city bench or iron cast moveable chairs only in different colours and sizes (Figure 1). A combination of benches and chairs was used in some of the plazas (Knickerbocker Plaza and Corona Plaza). Kensington Plaza included only benches and Avenue C Plaza and 71st Avenue Plaza had only chairs and tables.



Figure 1. Chairs and tables in 71st Avenue Plaza, Avenue C Plaza, Knickerbocker Plaza, and Corona Plaza.

Sponsor partners are responsible for the management of their plazas. They typically assign one person to be the plaza manager. He or she takes on other responsibilities as well. Plaza managers interviewed in this study reported that their primary responsibilities include: determining the maintenance needs of the plaza, coordinating operational work in the plaza, ensuring the plaza is serving the needs of the community, and programming events.

Site observations revealed that some management strategies directly affect use of the plaza amenities in 71st Avenue Plaza, Corona Plaza, and Avenue C Plaza. Umbrellas, for instance, were insufficient to provide weather protection in these plazas. There were number of umbrellas and moveable chairs which presumably create flexible usage for weather protection and other purposes. However, they were actually fixed by locking them to each other and also to the ground. Therefore, since they could not be moved by occupants, the chairs and umbrellas in 71st Avenue Plaza and Avenue C Plaza had very limited functionality. Yet, 71st Avenue Plaza is a well-occupied plaza. Because it has concrete walls that were designed as small platforms for a secondary type of seating near planted areas providing a tree canopy, many people were able to sit on these walls in a quite shady area when there were no chairs in the shade. But it is significant to note that people sit on uncomfortable concrete walls even though comfortable chairs stand empty under sunlight. Avenue C Plaza is the most significant example of how a public space with quite a several moveable chairs and umbrellas but with a poor management strategy can fail to attract people. Avenue C Plaza had umbrellas near tables and chairs locked together. Because Avenue C Plaza did not have fixed seating or any trees in it, almost no one was in the plaza during observation sessions that were conducted to measure the everyday use of the plaza.

There was a total of eight umbrellas when Corona Plaza was completed in 2018. During observation sessions in 2019, the number of umbrellas was only two. About four years ago, an umbrella fell on somebody on a windy day, causing injuries. That person sued the Corona Plaza management. As a result of this incident, the insurance payment of the plaza increased dramatically. When the incident happened during the temporary phase of the plaza, the umbrellas were heavy and sturdy. The DOT provided lighter and more fragile umbrellas for the permanent design of Corona Plaza. New umbrellas caused more concerns for the management of Corona Plaza because these were light and even

more dangerous than previous ones. The management of Corona Plaza found a solution by removing six umbrellas from the site.

In addition to being cautious not to harm people due to any incident in the plaza, the cost of liability insurance for the plaza would rise with each lawsuit related to the equipment of Corona Plaza. Considering that the management pays for the insurance expanses, removing umbrellas is a natural consequence. Therefore, until the DOT changes or fixes new but broken umbrellas, Corona Plaza may remain with two or fewer of them.

All pedestrian plazas in New York City include green spaces such as tree pits, flowerpots, and planters. The Hort's Neighbourhood Plaza Program collaborates with GreenTeam (another program of the Hort) for delivering horticultural services to many pedestrian plazas in the city. The Neighbourhood Plaza Program and the GreenTeam work in pedestrian plazas in two ways. The first way is that under contract to NYC DOT, they provide horticultural services in 14 pedestrian plazas. The second way is that some other pedestrian plazas pay the Hort to receive horticultural services from the Neighbourhood Plaza Program and the GreenTeam. All five case study plazas receive horticultural services from the Hort's programs. While Corona Plaza, Avenue C Plaza, Kensington Plaza, and Knickerbocker Plaza are among 14 pedestrian plaza sites that receive these services with the city funds, the sponsor partner of 71st Avenue Plaza pays to the Hort to receive horticultural services. According to the interviewees from sponsor partner organizations, the availability of the Hort's programs for horticultural services started roughly in 2013. Since then, the Hort's programs have been helping sponsor partners in the maintenance and improvement of their green spaces.

Findings: Use and Programming

Three plazas studied (Kensington Plaza, Knickerbocker Plaza, and 71st Avenue Plaza) are all located on sidewalks. As a result, in most cases, pedestrians must past through them. Corona Plaza, which built in a former parking lot, is bordered on three sides by roadways. Nonetheless, it still receives a high volume of pedestrian traffic. Avenue C Plaza is located on a traffic island. Likely because it is a detached area from the sidewalk, pedestrian traffic in Avenue C Plaza was almost non-existent during site observations. The observations demonstrate that plazas that have a physical link to the adjacent sidewalks are more accessible places than the ones stand detached and so they have a heavy volume pedestrian traffic. Figure 2 shows the location of the plazas studied in relation to adjacent sidewalks and roadways.

The plazas studied were home to various types of stationary activities, including chatting, people watching, and eating or drinking. During observation period, each activity is counted independently of who performed the activity. For example, if someone ate and talked to someone during observation period, both types of activity were counted separately on the checklist. People-watching and eating/drinking were the most frequent activities. Some other activities that were not listed in the checklist were also observed in the plazas studied. One of these other activities that were frequently observed was playing dominoes or cards. In Corona Plaza, Knickerbocker Plaza, and 71st Avenue Plaza, some elderly locals were observed playing dominoes or cards. In his interview, the Corona Plaza manager expressed his gratitude for having a place that locals to gather. He also felt that it generates community pride and unity.



Figure 2. Relationships between the plazas studied and surrounding sidewalk and roadways. Source: Individual plaza maps were obtained from New York City Department of Transportation.

Table 1. Types of Activities in Each Plaza.

	Type of Posture and Activity	Average over all plazas	71 st Ave Plaza	Knickerbocker Plaza	Corona Plaza	Kensington Plaza
Activities	Eating/ drinking	17.7%	20.1%	9.7%	23.3%	10.0%
	Chatting	31.6%	29.5%	36.2%	27.4%	41.9%
	People-watching	26.1%	20.6%	29.5%	25.2%	33.1%
	Electronic device	15.9%	21.9%	14.1%	15.3%	10.0%
	Commercial Activity	3.4%	0.5%	5.1%	4.2%	0
	Other	5.3%	6.6%	5.5%	4.5%	4.9%
	Total number of observed activities	1758	390	475	733	160

The overwhelming number of respondents reach a plaza by walking there since they live less than 10 minutes away. Many reported that they visit their plaza every day. Both the managers and users of Knickerbocker Plaza, Corona Plaza, and 71st Avenue Plaza often described their plazas as a casual gathering space for people in the neighbourhood. The manager of Knickerbocker Plaza emphasized that ‘Old folk’s park’ is another name for Knickerbocker Plaza since older residents use it every day as a place to gather.

Table 2. User Preferences.

		All Plazas	71 st Ave Plaza	Knickerbocker Plaza	Corona Plaza	Kensington Plaza
Number of Respondents	Total	240	67	59	81	33
Method to Get to the plaza	Walking	81.7%	91.0%	88.1%	66.7%	87.9%
	Bicycle	6.7%	6.0%	1.7%	11.1%	6.1%
	MTA/ Bus	9.1%	3.0%	8.5%	17.3%	3.0%
	Car	2.5%	0	1.7%	4.9%	3.0%
Distance from home to the plaza	Less than 10 minutes	73.3%	80.6%	77.8%	56.8%	90.9%
	10-30 minutes	17.5%	17.9%	16.9%	23.4%	3.0%
	More than 30 minutes	9.2%	1.5%	5.1%	19.8%	6.1%
Frequency of visits	Once a day	36.7%	43.3%	45.8%	22.2%	42.4%
	More than once a week	24.6%	20.9%	23.7%	29.6%	21.2%
	Once a week	21.2%	19.4%	18.6%	27.2%	15.2%
	Rarely	8.4%	8.9%	5.1%	8.7%	12.1%
	Very rarely	4.1%	3.0%	1.7%	4.9%	9.1%
	First time	5.0%	4.5%	5.1%	7.4%	0
Duration of visits	Less than 30 minutes	39.6%	43.3%	23.7%	44.5%	48.5%
	30 min-2 hours	28.8%	32.8%	27.2%	25.9%	30.3%
	2-4 hours	22.9%	19.4%	35.6%	19.7%	15.1%
	More than 4 hours	8.7%	4.5%	13.5%	9.9%	6.1%

Except for Avenue C Plaza, all plazas are well occupied on both weekdays and weekends. During most observation periods, people were occupying more than half the seats. Site observations included counting people alone, people with one other person, and counting people with more than one person. The percentages of people with one person and people with more than one person were almost equal (both about 37%) in four of the plazas studied. The greatest proportion of people alone were in Kensington Plaza (44%) while the highest proportion of people in groups was in Knickerbocker Plaza (46%). It is significant to note that both of these plazas are located at the corner of two sidewalks, and possess a high density of pedestrian flow. Both plazas are primarily occupied by people over 40. In addition, many users in both plazas they live in the neighbourhoods, within a ten-minute walk.

One reason for the difference in the number of groups in the two plazas may be the functionality of the seating. Kensington plaza has only a couple of benches lined up at

the edge of the sidewalk, making it difficult for people to sit in groups. In contrast, Knickerbocker Plaza has benches but also moveable chairs and tables, giving occupants opportunities to move chairs and tables to sit together.

The DOT requires that all sponsor partners program community events and activities in their plazas. In *NYC Plaza Program Guidance*, the DOT states: “to make the plaza a vibrant centre of activity and a neighbourhood destination, the Partner will be responsible for programming activities and events at the site. These may include holiday events, food or craft markets, temporary public art installations or exhibits, and music and dancing. The Partner will be expected to program the plaza throughout the year” (8) (NYC Department of Transportation, 2021). Of the plazas studied, Avenue C Plaza and Corona Plaza held the greater number of events during this study. The managers of Corona Plaza and Avenue C Plaza reported that their partnerships with other non-profit organizations as well as local businesses and artists accounted for the success of programs in these plazas.

In 2006, the Queens Museum created a program called Corona Plaza, Centre of Everywhere. The goal was to hold events and festivals in a parking space intended for trucks. Those events and festivals eventually led to the creation of Corona Plaza in 2012. Becoming an unofficial programming sponsor, the Queens Museum has continued to program events and festivals there. According to the public program director of Queens Museum, the programming has been done not only for celebrating particular cultures, but it was also for introducing these cultures to each other and enhancing the socialization in the community (Yank, 2012).

Of all the study sites, Avenue C Plaza was least occupied on a daily basis. However, the number and diversity of *programmed* activities in that plaza was greater than in any of the other plazas studied. The sponsor partner for Avenue C Plaza, The Kensington Stewards, accomplished this through partnering with other civic organizations including ArtBuilt and Arts & Democracy. Eventually several organizations collaborated to create the Kensington Cultural Council to facilitate communications between the organizations and programming of community events in Avenue C Plaza.

Activities and events in the Avenue C Plaza take place throughout the year but more frequently between April and November. ArtBuilt, for instance, has been installing a mobile studio in Avenue C Plaza in June every year since 2016 (except 2020 and 2021 due to the COVID19 precautions). This studio provides a small indoor space for conducting some public events and workshops. An event organizer from ArtBuilt, interviewed in 2019, said:

I remember one year we were doing a workshop. It was raining so hard and a girl who was maybe eight or nine years old came on her scooter in the rain because she was looking forward to doing a workshop that we got. And a bunch of other kids came in, soaking wet. They didn't care. They were just like hungry to do more. And I think it was a really good example of why the arts and culture are so important in public space. There is a lack of activity for our children in the neighbourhoods.

Given the diverse cultural characteristics of the Corona and Kensington neighbourhoods, these plazas seem to function as stages for locals to acknowledge and celebrate each other's similarities and differences.

Concluding discussion: The challenges, Possible Precautions and Additional Considerations

The purpose of this research was to investigate various components of the New York City Plaza program in order to provide practical information to New York City Department of Transportation for improving the design and use of the plazas. It is also important to view the program in light of Mayor Bloomberg's neoliberal agenda.

The Challenges and Possible Precautions

Even though the plazas studied in this research are relatively small spaces with simple design features, they are well-used and, in this way, successful. The potential for these plazas to remain active, inviting public spaces or, in some cases, to become more active is promising. Their location plays a key role in their success. That is, the plazas, like most pedestrian plazas in the city, are part of a local street network that accommodates a continuous flow of pedestrians. So many people visit them easily, intentionally or unintentionally, during their daily routines. The plazas studied are located in city neighbourhoods that lack open public space, often making them the only ones. As demonstrated by the use of Knickerbocker Plaza, 71st Avenue Plaza, and Corona Plaza, pedestrian plazas are convenient locations, especially for many elderly locals to socialize on a daily basis. Conducting a design and management strategy based on the needs of the community is essential since these sites are one of the limited public spaces for the community. However, several challenges arise related to the design, management, and use of the plazas studied. These challenges are primarily due to flaws in the share of responsibilities between the DOT and sponsor partners.

Managing a plaza site with limited financial and technical resources is not an easy task for sponsor partners. Even though sponsor partners have to prove to the DOT their capability for managing and maintaining a pedestrian plaza in the plaza application process, management and maintenance could be a burden over time, especially for sponsor partners who rely on unstable financial resources. Similarly, in 2015, a study conducted by Gehl Studio and J Max Bond Center in the pedestrian plazas of New York City concluded that pedestrian plazas especially for those that serve under-resourced communities need long-term funding from the city resources. In 2019, funding issues of sponsor partners were still persistent considering challenges that were mentioned by plaza managers of the studied plazas during their interviews in this study. These challenges were typically related to the scarcity of funding for maintaining plaza furniture, housekeeping, and programming events.

The DOT needs to co-manage pedestrian plazas with sponsor partners and find new strategies to improve the management and maintenance of plazas. The DOT uses city funds and collaborates with the Horticultural Society of New York City (a non-profit organization) to maintain the green spaces of 14 plazas under OneNYC program. This strategy can be used for the management and maintenance of the plazas that are in need as well. It could include a collaboration between sponsor partners and other non-governmental organizations that have the necessary knowledge and human resources to manage and maintain a public space.

According to the tenets of tactical urbanism (Lydon et al., 2012), a design process that includes temporary interventions provides excellent opportunities for creating public spaces that meet the needs of a particular community. That is precisely what the DOT does during the temporary phase when the sponsoring partner invites community

members to describe their needs. However, both plaza managers and residents reported that the city government makes insufficient use of the community members' input. Instead of pursuing their recommendations, the DOT uses standardized design elements.

Observations of the plazas confirmed this: the chairs, tables, benches, umbrellas, and ground cover were all the same with only some variation in colour.

The goal of this standardization strategy is equity: to create public spaces that are similar in both wealthy and financially disadvantaged neighbourhoods. However, this strategy also creates inequity. A pedestrian plaza that is created with standard design elements may not have a significant effect on those neighbourhoods that already have plentiful public space. Pedestrian plazas that are located in under-resourced communities typically need to fulfil a larger gap in the social life of their communities because typically there are few public spaces in these neighbourhoods. So, it is more important in those neighbourhoods that the design elements of permanent plazas meet the particular needs of locals with site-specific design features rather than standardized ones.

In addition to providing opportunities for everyday use, active programming in a public space is valuable for people who do not have many opportunities to leave their neighbourhoods (Peinhardt and Storrington, 2019). According to the Project for Public Space, programming is significant for presenting a community's character, enhancing the sense of belonging and ownership, and providing a medium for cultural exchange across cultures (Peinhardt and Storrington, 2019). Among the plazas studied, only two (Avenue C Plaza and Corona Plaza) were active regarding programmed events. Others had no or just a few programmed events during the two-year research period. Similar to the findings of this research related to the programming in Corona Plaza, Taylor (2018) who investigated the art and culture activities in Corona Plaza, using participant observation at events and semi-structured interviews with stakeholders concluded that:

“Corona Plaza provides a model of an atypical partnership complemented by collaboration with community organizations and residents to create an active site of art engagement with local impact and growing notoriety across the city” (19).

The key to this success of both Corona Plaza and Avenue C Plaza managements in programming was their external collaborations with other non-profit organizations and institutions with the necessary funding and knowledge to program and conduct activities in a public space. However, acquiring such support from civic organizations requires excessive time and effort for sponsor partners. The DOT needs to step in and use its resources to create new collaborations between plaza sponsors and other civic organizations that have the necessary financial and technical resources for artistic and cultural events.

Additional Considerations: Mayor Bloomberg's Agenda.

Creating pedestrian plazas with a standardized design strategy appears to exemplify what Peck and Tickle (2017) call the “Bloomberg approach”- using an innovation to conduct quick “make-overs” and “local boosterism” in order to improve the city's image to compete with other world class cities. Since the Pedestrian Plaza Program was established under Mayor Michael Bloomberg, one may well ask: was its purpose to

further his neoliberal agenda of using makeovers, innovations and boosterism to compete with other world class cities or was the program established to contribute to *local* development? The former closely resembles what Brash (2011) identifies as the “the Bloomberg” way in which the mayor serves as the CEO, the city government as a company.

If the Bloomberg administration’s genuine purpose had been to stimulate innovative local development, the DOT would have collaborated with sponsor partners more enthusiastically during the temporary phase and city officials would have paid careful attention both to the physical context of the plazas (e.g. identifying the angle of the sun at different times of the day in order to provide shading amenities) and to the social context (e.g. identifying potential users and their needs during the public workshops). Also, their choices of design elements would not have been limited by consideration of maintenance costs.

Future Research: Post COVID19

The research was conducted in 2019, a few months prior to the COVID19 pandemic and lockdown. Pedestrian plazas became useful for people because indoor public spaces were part of the limitations related to the social distancing during the pandemic. Pedestrian plazas were used more heavily for public events and activities as well as community gathering spaces during the pandemic. The DOT revised some of the policies in the program based on the use of pedestrian plazas that emerged as a consequence of the pandemic precautions in social life. These changes were heavily made by the brand-new city administration.

One improvement made in 2022 was the compilation of a public space programming catalogue for sponsor partners (NYC Department of Transportation, 2022). In this catalogue, the DOT lists organizations that focus on activities related to art and culture and are available to form partnerships with sponsor partners. As the research described here demonstrates, , the programming of activities and cultural events is only possible when sponsor partners collaborate with other non-profit agencies who have experience in such programming. This catalogue should support new and possibly more effective collaborations between plaza sponsors and other civic organizations that have the necessary financial and technical resources to support artistic and cultural events. Research is needed to determine the effects that this DOT catalogue has had on event programming.

When the study described in this article was conducted in 2019, the OneNYC Plaza Equity Program funded 14 pedestrian plazas for the maintenance of their green areas through Hort’s programs. As of 2023, the DOT plans to increase the number of plazas that receive funding to 100. Among the study sites, 71st Avenue Plaza was the only plaza that did not receive funding from the plaza equity program. Once this funding is received and used at the study site, new research could well reveal how effective this program is for 71st Avenue Plaza.

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