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Community Traffic Mitigation Plan

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# **Executive Summary**

The Brooklyn Cruise Terminal experiences high passenger traffic volumes on cruise days involving high-capacity Cruise ships, which negatively impacts the surrounding neighborhood. To mitigate the issue, NYCEDC worked with community stakeholders, traffic engineering consultant WSP, Cruise Operator Ports America, New York Police Department (NYPD), and NYC Department of Transportation (DOT) to identify the appropriate mechanisms to mitigate the issue.

Mitigation strategies seek to address two primary categories for mitigation:

# **Congestion Management:**

- On the local street network: Strategies include deploying Traffic Enforcement Agents at key locations to assist with traffic flow; making temporary traffic diversions during the busiest periods to prevent severe congestion; shifting departure times of cruise ships to spread out the peaks between disembarking and embarking passengers; clearing the curb on Van Brunt Street to increase roadway capacity during peak cruise activity; making GPS corrections so that navigation apps direct vehicles to the proper entrance to the facility; and better enforcement of existing parking regulations.
- <u>Within the Brooklyn Cruise Terminal</u>: Strategies include expanding the internal roadway and modifying internal crosswalk leading from pedestrian entrance gate, proactive management of curb frontage activities along Pioneer Street near the pedestrian gate, relocating passenger pickup and drop-off (by mode), and improving barriers separating the Brooklyn Waterfront Greenway from the roadway along Conover Street.

**Reducing Traffic Volumes:** Strategies include increasing the options and desirability of alternative modes (i.e. ferries, transit) as well as increasing the appeal of shuttle bus options, airport transfers, train station transfers, and park-and-ride locations.

To mitigate the issue, the following strategies are either completed, continuously implemented at each cruise call ("continuous"), being iterated for improved efficacy ("ongoing refinement"), or a part of future planning efforts ("planning").

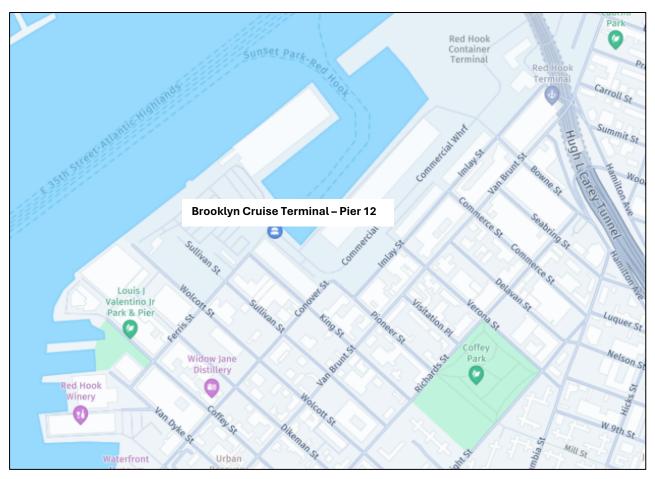


Figure 1: Map of Brooklyn Cruise Terminal

Status	Challenge	Intervention	
Completed	Bottleneck at BCT Entrance (Bowne St.)	Re-striped internal roadway to establish additional travel and queue lane	
	Unclear pedestrian path from entrance to terminal	Re-striped, painted internal path and crosswalk	
	Inefficient pick-up/drop-off area, leading to traffic back-up into local streets	Improved flow and capacity by reconfiguring pick-up/drop-off zones, doubling capacity for pick-up	
	Overlap between passengers arriving and leaving BCT caused higher peak volume of cars on local streets	Shifting cruise departure times later to reduce the overlap of arriving and departing passengers	
	Bottleneck at Van Brunt St. and Bowne St. for cars turning into BCT	Prohibiting parking on Sundays frees up a lane for vehicles turning into BCT via Bowne St.	
Continuous	Gridlocks occurring on local streets	Traffic enforcement agent deployment at key intersections to facilitate turns	
	Heavy congestion on Van Brunt St.	Temporary traffic diversions direct cars on Van Brunt St. to the Bowne St. entrance	
	Lack of convenient and alternate mode of travel to BCT	Additional NYC Ferry and shuttle service to incentivize mass transit	
	Inaccurate routing in GPS and ride-share apps	Working with GPS vendors and ride-share companies to correct drop-off point, directing traffic to Bowne St. entrance	
	Vehicles parked along "no standing" regulation on Bowne St., blocking entry traffic flow	Working with NYPD to improve parking enforcement in the area	
	Cruise passengers being picked-up/dropped-off on to bike lane (Conover St. / Pioneer St.)	Cones placed to delineate protected bike lane, active enforcement with traffic managers	
	Lack of understanding of passenger travel pattern	Data collection and impact analysis	
	Lack of industry and public sector coordination on traffic management	Improved stakeholder coordination	
Ongoing Refinement		Ferry shuttle to Wall St./Pier 11	
	Lack of convenient and alternate mode of travel to BCT	Airport transfers and shuttle buses	
		Park-and-ride shuttles (buses and ferries)	

This report details the cruise terminal traffic mitigation strategies and is hereby submitted as the Community Traffic Mitigation Plan for the Brooklyn Cruise Terminal (BCT) in accordance with Local Law 54, which requires the creation of a Community Traffic Mitigation Plan defined as "a plan, developed in consultation with the Department of Transportation and the Police Department, that outlines proposed measures to reduce private or for-hire vehicle usage and encourage use of public transportation in a neighborhood where a cruise terminal is located in order to address traffic congestion and other disruptions resulting from the loading or unloading of cruise ships or similar vessels as a cruise terminal." In the development of the Community Traffic Mitigation Plan, input is solicited from "members of the public who reside in neighborhoods surrounding a cruise terminal" via a public comment period and is "accompanied by an assessment by the Police Department and the Department of Transportation of which, if any, of the proposed measures such departments plan to undertake."

While this report includes efforts to reduce private vehicle usage and increase the use of public and mass transit, it also defines measures to mitigate the impacts of private and for-hire vehicles, and to leverage private shared mass transit, like shuttles, to address traffic congestion and other disruptions.

# Introduction

# History

Brooklyn Cruise Terminal (BCT) opened in the Red Hook neighborhood of Brooklyn in April 2006. The 13-acre BCT sits on what was previously the Atlantic Basin Iron Works and is located within the 122-acre Brooklyn Marine Terminal (BMT). The site was initially owned by the Port Authority of New York and New Jersey (PANYNJ), and in 2024 an agreement was reached to transfer ownership to the City of New York.

Currently BCT serves as one of three cruise ports for the greater New York City region, the other two being the Manhattan Cruise Terminal (MCT) on the West Side of Manhattan and the Cape Liberty Cruise Port located in Bayonne, New Jersey. There are multiple cruise companies that operate out of BCT. Table 1 presents projected landings for 2025. The Cunard Line and Princess Cruises have operated at BCT since its initial opening. In spring 2023, MSC Cruises began operations at BCT, bringing both larger vessels as well as weekly landings throughout the year that introduced higher levels of passenger traffic in Red Hook.

Cruise Line	Ship	Capacity (Passengers)	Ship Calls	Cruise Season
Cunard	Queen Anne	3,000	1	Year-round
	Queen Mary II	2,700	17	(with higher
				levels May –
				November)
MSC	MSC Meraviglia	5,000	51	Year-round
				(with higher
				levels May –
				November)
Princess	<b>Enchanted Princess</b>	3,600	10	June -
	Island Princess	2,200	10	November
Regent	Seven Seas Splendor	750	1	September -
				November

# Table 1: BCT Cruise Operations (2025)

# **Overview of Traffic Issues**

On high-passenger-volume<sup>1</sup> cruise days, the Red Hook neighborhood experiences significant traffic challenges for local residents and businesses. Prior to mitigation strategies, the primary traffic-related issues experienced included:

# 1. Increased Congestion on Local Roads

- Heavy Vehicle Traffic: Cruise days bring an influx of taxis, rideshare vehicles, and private cars, leading to severe congestion on neighborhood streets, particularly along Van Brunt Street and Bowne Street. In addition to creating disruption to residents, the congestion issues posed a great threat to local businesses that had difficulty operating in these conditions.
- Limited Road Capacity: Red Hook has a constrained street grid with narrow roads, making it difficult to handle large traffic volumes efficiently.
- **Rideshare and taxi drop-offs** often create bottlenecks, particularly at the pedestrian entrance of the cruise and ferry terminal.
- **Incorrect GPS routing** would route for-hire vehicles and personal vehicles to the incorrect entrance and roadways, extending traffic circulation and limiting efficient traffic flows.
- Intersection with Amazon delivery times led to increased traffic congestion.

# 2. Cruise Terminal Circulation

- The roadway along Pier 11 and Pier 12 from Bowne Street gate only had two lanes for traffic flow, leading to traffic backing up to outside of the terminal entrance at Bowne Street.
- 3. Safety Concerns for Pedestrians and Cyclists
  - Vehicle congestion, queuing, and delays in and around the terminal increase the safety risk for pedestrians and cyclists.
  - Cyclists face challenges due to conflicts with passenger loading maneuvers within the existing protected bike lane on Conover Street between Pioneer Street and King Street.

# Cruise Traffic Management Stakeholders

Effective coordination between industry and public sector stakeholders is critical to successfully manage the traffic conditions at BCT and the surrounding streets impacted in the Red Hook Neighborhood. The following are the key stakeholders that coordinate on an ongoing basis to reduce traffic impacts on the community. Weekly coordination with stakeholders for the past three years has informed this plan.

- New York City Economic Development Corporation (NYCEDC) serves as the leaseholder of BCT, which occupies the southernmost portion of the BMT (Brooklyn Marine Terminal).
- Ports America serves as the operator of BCT. Ports America provides terminal management and stevedoring services for the facility. They are also responsible for traffic management within the facility, including frontage operations and pedestrian assistance. They also coordinate with cruise companies to ensure traffic disruptions are reduced to a minimum during cruise days.

<sup>1</sup> High-passenger volume is defined as passenger counts over 4,000 at given embark and over 4,000 disembarking on a given day.

- Multiple cruise companies have operations at BCT. The largest of these are MSC Cruises and Carnival Corporation (through their subsidiaries the Cunard Line and Princess Cruises). Most of the cruise companies operate private shuttle and transfer services to and from key origins and destinations of the city and surrounding areas including nearby airports, hotels, and train stations, providing a convenient alternative to personal vehicles to and from BCT.
- The New York City Department of Transportation (NYC DOT) oversees the operation of the roadways surrounding BCT, including determination of parking regulations and direction of traffic flow.
- The New York Police Department (NYPD) is responsible for traffic management on the public roadways outside BCT. Per an agreement with NYCEDC, the NYPD provides traffic enforcement agents (TEAs) who manage traffic operations at key locations during peak periods. These TEAs work in conjunction with private traffic and pedestrian managers that are contracted by NYCEDC.
- Logistics Companies that operate out of warehouses in Red Hook add traffic volume via delivery trucks. Coordinating with these companies to stagger delivery times with cruise embarking and disembarking helps reduce overlap of delivery vehicle dispatch and cruise traffic.

# Methodology

# Field Observations and Data Collection

With both an increase in vessel size, passengers, and more frequent landings in 2023, traffic congestion dramatically increased in the terminal and in Red Hook. In 2023 and 2024, NYCEDC gathered data and worked with stakeholders to understand traffic conditions and develop short-term solutions, along with long-term plans to reduce vehicle trips.

The following tasks were performed as part of the effort, further described in subsequent sections:

- Cruise Passenger Travel Survey
  - A brief, two-question survey of cruise passengers was conducted during June and July 2023 to determine the origin of passenger travel and mode of travel (personally owned vehicles and parked or dropped off, taxi/FHV, shuttles, or other options) of passengers that were sailing on the MSC *Meraviglia*. A more detailed survey was done over three weeks in July 2024 focusing on four key areas: origin on the day of embarkation, transportation mode used to arrive at BCT and their reasonings, size of travel party, and willingness to consider alternative transportation methods such as shuttle services.
- Field Observations
  - Field observations were initially conducted in June 2023 on three consecutive Sundays when the MSC *Meraviglia* was in port. Staff were positioned within BCT and around the Red Hook neighborhood to observe vehicular and pedestrian operations, documenting congestion and other areas of interest. These initial field observations noted high levels of congestion during a peak period that generally lasted for about 1.5 to two hours during the late morning.
- Traffic Data Collection
  - Data were collected to gauge the typical magnitude of traffic in the neighborhood around BCT on a peak ship call day. Initial traffic data collection occurred during June 2023 with turning movement counts (TMCs) and automatic traffic recorder (ATR) counts conducted at several locations around BCT for nine (9) consecutive days including two weekends. Additionally, a manual count was conducted at the entrance to BCT and video camera footage was collected to record BCT frontage operations.
  - Additional data was collected in November 2023 through TMCs for four days over a two-week period. These days included ship call days on a Sunday and a Monday as well as non-ship call days on the same days of the week for comparison.

# • Traffic analysis and simulation modeling

 Using the traffic data collected, a traffic simulation model was created to further understand current traffic patterns and conditions, and support development of potential traffic mitigation strategies.

# Data Analysis

# PASSENGER SURVEYS

Passenger surveys revealed key insights regarding passenger origin, modal split, travel party size, and opportunities for alternative transportation methods besides private automobiles. Below is a detailed summary response of our July 2024 survey:

The two most common origin points on the day of embarkation were Brooklyn and New Jersey, each encompassing approximately 20 percent of responses. The option "Other," which included locations north of New York City (e.g. Westchester County, Rockland County, and Connecticut) as well as Pennsylvania, accounted for approximately 29 percent of responses.

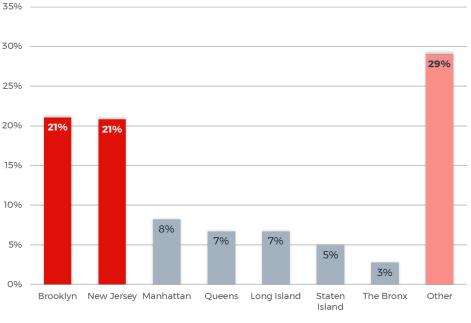
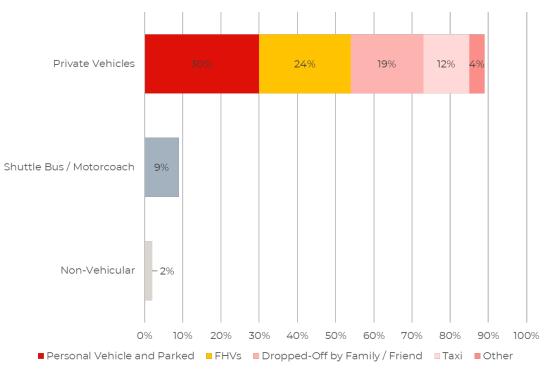


Figure 2: Passenger Origin (Day of Embarkation)

Approximately 89 percent of passengers arrived via private vehicles, including for-hire vehicles (FHVs), taxis, being dropped off by family or friends, and parking their own vehicles. Most of these passengers indicated that their choice to travel by private vehicle was due to the relative ease it provided when traveling with luggage.





Out of passengers arriving via private vehicles, about 41% indicated they arrived via Taxis or FHV (Rideshare) service, and 55% arrived via their personal vehicles and parked, or was dropped off by friend or a family member.

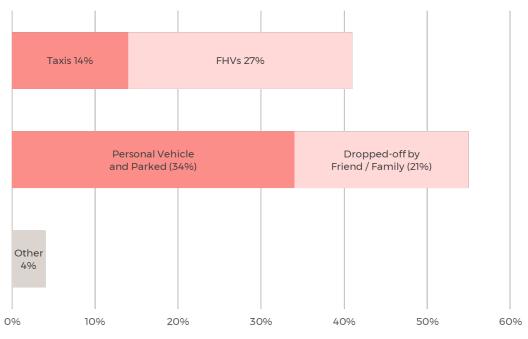
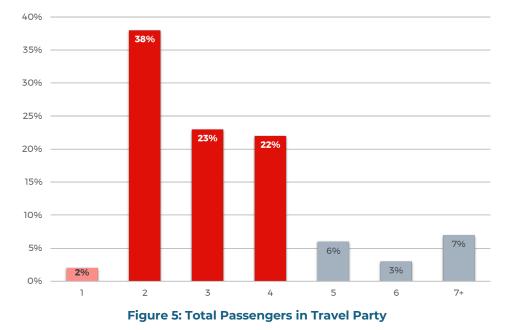


Figure 4: Private Vehicle Modal Split

Approximately 83 percent of passengers were traveling in a party of 2-4 passengers. Of those that arrived via private vehicle, their average vehicle occupancy was 2.8.



When offered transportation alternatives, the most common responses selected were park-and-ride alternatives. These included methods where passengers would ultimately arrive at BCT either via shuttle bus or ferry. The most common locations indicated for park-and-ride locations were New Jersey and north of New York City (Westchester County/Rockland County/Connecticut).

### **FIELD OBSERVATIONS**

During this time, congestion was observed along both directions of Van Brunt Street, impeding the flow of non-BCT traffic, including MTA buses. This congestion also extended onto westbound Hamilton Avenue. Congestion was also observed at the Pioneer Street pedestrian gate, due to a high amount of curbside activity and frequent pedestrian crossings, and throughout the various streets in the neighborhood south of BCT, in part due to drivers heading towards the wrong entrance gate. Subsequent field observations were conducted at regular intervals to monitor traffic conditions and verify the results of any changes that have been implemented.

From these field observations, several areas for improvement were noted:

Congestion was observed in both the northbound and southbound direction along Van Brunt Street, stemming largely from vehicles attempting to turn onto westbound Bowne Street to enter BCT.



Figure 6: Congestion on Van Brunt Street and Bowne Street

On ship call days, vehicles are directed to exit BCT utilizing an access gate along Wolcott Street. Errant vehicles were observed (reportedly following GPS directions) attempting to enter BCT via the Wolcott Street gate and then needed to be redirected back to the Bowne Street entrance.

Misdirected vehicles were also observed attempting to enter BCT via the Ferris Street gate (which is closed on days when there is a ship call). At times these vehicles would ignore posted signage and proceed in the wrong direction down King Street, creating a safety hazard.

Heavy congestion was observed at BCT frontage, resulting from a mixture of conflicting operations occurring within the same confined space, including passenger pick-up, passenger drop-off, vehicles destined for the parking lot, and facility ground operations (transport of luggage).



Figure 7: Congestion at BCT Pick-up / Drop-off Zones

# TRAFFIC SIMULATION ANALYSIS

Initial traffic data collection occurred during June 2023. Turning movement counts (TMCs) were conducted at twelve (12) intersections for six hours on one of those Sundays, while automatic traffic recorder (ATR) counts were conducted at four (4) locations around BCT for nine (9) consecutive days including two weekends. These data were used to ascertain the typical magnitude of traffic in the neighborhood around BCT on a peak ship call day. Additionally, a manual count was conducted at the entrance to BCT, and video camera footage was collected to record BCT frontage operations.

Additional data was collected in November 2023. TMCs were collected at 17 intersections for four hours each day across four days over a two-week period. These days included ship call days on a Sunday and a Monday as well as non-ship call days on the same days of the week for comparison. Additionally, ATRs were collected at seven locations throughout the area on the same four days for calibration purposes.

Traffic data collected in November 2023 were utilized to generate peak-hour flow maps for each of the four scenarios: Ship call days (weekend and weekday) and non-ship call days (weekend and weekday). These flow maps are representations of traffic flow throughout the study area during the peak hour, including traffic generated by BCT as well as background traffic. Traffic volumes were subsequently adjusted to generate flow maps for peak cruise season (July). BCT traffic was adjusted based on passenger volumes from the MSC *Meraviglia* while background traffic was adjusted by a seasonal factor.

Utilizing these flow maps, analysis of existing traffic conditions on ship call and non-ship call days was completed using Synchro traffic simulation software. Synchro is a simulation software used to analyze traffic conditions at individual intersections as well as those that are part of a roadway network. The software can report a number of parameters that are utilized to measure the impacts of congestion, including levels of service (LOS), which is a measurement of the average amount of delay experienced by each vehicle, volume to capacity (v/c) ratios, and average queue lengths. Analysis of each of the four scenarios as performed to compare ship call and non-ship call days on both a weekend and a weekday.

From these scenarios, multiple potential mitigation improvements were modeled to determine the significance of their potential improvement to overall traffic conditions on ship call days with the heaviest levels of congestion. As most of the ship calls for the MSC *Meraviglia* occur on a Sunday, the weekend ship call scenario was used in these evaluations. Mitigation measures that were considered included temporary traffic diversions and proposed parking restrictions. Scenarios were also modeled that examined the potential improvements in congestion based on a shift of more passengers from private vehicles to shuttle buses as well as shifting in the arrival time of vehicles by spacing out the time between disembarkation and embarkation.

Multiple temporary traffic diversions were evaluated that involved three different roadway segments. Traffic diversions were finalized in discussion with DOT to determine the feasibility:

- <u>Commerce Street Reroute</u>: Traffic along southbound Van Brunt Street that was destined for BCT was shifted from Bowne Street to Commerce Street. Traffic would proceed along Commerce Street to northbound Imlay Street to enter the facility. This scenario was also evaluated for diverting BCT traffic from both directions of Van Brunt Street.
- <u>Verona Street Reroute</u>: Traffic along southbound Van Brunt Street that was destined for BCT was shifted from Bowne Street to Verona Street. Traffic would proceed along Verona Street to northbound Imlay Street to enter the facility. Compared to the Commerce Street reroute, this would allow for additional queuing area on Imlay Street. However, it would require a temporary reversal of the direction of travel along Verona Street. This scenario was also evaluated for diverting BCT traffic from both directions of Van Brunt Street.
- <u>Imlay Street Reversal</u>: Traffic along southbound Van Brunt Street that was destined for BCT was shifted to Summit Street. Traffic would then proceed along Summit Street to southbound Imlay Street. This option would require a temporary reversal of the direction of travel along Summit Street and Imlay Street (north of Bowne Street). This scenario was also evaluated with the additional reroute of BCT traffic from northbound Van Brunt Street to westbound Commerce Street.

Temporary parking restrictions were evaluated along Van Brunt Street approaching Bowne Street from both directions.

- In the northbound direction, parking would be restricted along the eastern curb face between Bowne Street and Seabring Street. This would allow through-traffic to bypass vehicles that are waiting to turn left.
- In the southbound direction, parking would be restricted along the western curb face for one block north of Bowne Street. This would allow through-traffic to bypass vehicles waiting to turn right. This right-

turn bay would also increase capacity along this block, decreasing the potential for queuing to spillback beyond the Summit Street / Hamilton Avenue intersection.

Scenarios were evaluated in which either 10 or 15 percent of passengers were mode shifted from private vehicles to shuttle buses. These scenarios were also evaluated in combination with a shift in arrival times, temporary traffic diversions, or both.

# **Determination of Strategies**

NYCEDC and partner stakeholders are prepared to implement mitigation strategies as needed. NYCEDC is also identifying the adequate level of traffic mitigation strategies necessary for each ship call days based on various conditions as part our traffic management workstream. Several factors are considered to forecast the severity of traffic impacts on the neighborhood:

- Anticipated Number of Cruise Passengers: The number of passengers at BCT on a given day directly impacts the volume of vehicles arriving to BCT. While Cunard's Queen Mary may only carry up to 2,700 passengers on a one-way voyage, MSC *Meraviglia* can potentially have a turn with up to 5,500 passengers embarking and disembarking on the same day. Based on future estimates of passenger volumes, NYCEDC will coordinate with NYPD to implement traffic diversions including diverting vehicles to Commerce Street to increase the available queue storage distance for entering vehicles, as well as ensure adequate numbers of TEAs are deployed to manage traffic flow. NYCEDC is coordinating closely with MSC Cruises as the largest vessel operator at BCT, to incorporate various traffic reduction strategies such as promotion of shuttles, park-and-ride options, and ferry systems to encourage passengers to use mass transit modes instead of driving to BCT.
- **Special Events in and Around the Neighborhood**: Special events can potentially cause traffic impacts by diverting traffic flows throughout the neighborhood and surroundings, creating an unusual traffic pattern. With close coordination with NYPD and other sister agencies, NYCEDC is continuing to monitor overlaps between special events and ship call days to ensure minimal impact. Some examples of special events in the past include Tunnel To Towers Foundation 5K Run & Walk NYC, TCS New York City Marathon, and the TD Five Borough Bike Tour.
- Day of the Week: Although scheduled ship call days for larger vessels including MSC *Meraviglia* generally occur on weekends, there are multiple occasions that it may fall on weekdays when cruise traffic overlaps with neighborhood commuter traffic. During those occurrences, NYCEDC will coordinate with NYPD and other stakeholders to ensure cruise traffic causes minimal impact by implementing traffic diversions. NYCEDC also coordinates closely with NYC Ferry to ensure adequate ferry service is carried out with minimal disruption to commuters using the NYC Ferry system on a regular and ongoing basis by increasing vessel size and increasing service.

# **Traffic Mitigation Strategies**

# Completed

# **Expanded Internal Roadway**

NYCEDC transformed the internal roadway by widening it from a single bi-directional lane to three lanes—two inbound and one outbound. This upgrade dramatically increases inbound capacity and eliminates the need to place cones on ship call days (Figure 1), providing safer and smoother operations for all vehicles and mitigating traffic backup onto local streets.



Figure 8: Internal Roadway Before/After

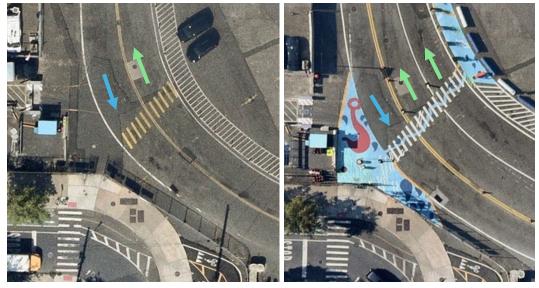


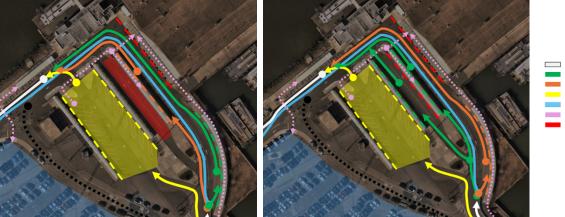
Figure 9: BCT Internal Pavement Markings Before (left)/After (right) | photo credit: Nearmap

# **Crosswalk Modification and Reinforcement**

NYCEDC repainted and extended the pedestrian crosswalk to span the new third lane, making it easier and safer for pedestrians to walk from the gate to the cruise terminal. This improvement not only enhances visibility but also provides a more direct and efficient walking route.

## Reorganization of BCT Pick-up/Drop-off Zone

Field observations revealed severe congestion at pick-up and drop-off points, causing backups that stretched toward Bowne Street and nearby roads. To fix this, taxi and FHV pick-ups were relocated closer to the terminal, creating a steady, more organized traffic flow. On weekend ship call days, vehicles now exit via Wolcott Street to improve circulation and reduce delays.



Multiple Modes
Passenger Vehicle Pick-up
Taxi / FHV Pick-up
Drop-off (All Modes)
Parking
Pedestrian Path
No Access

Figure 10: BCT Frontage Operations Before/After | photo credit: Nearmap

## **Shifting Departure Times**

NYCEDC and MSC Cruises adjusted boarding schedules to spread traffic demand over a longer period, typically by having a later boarding time. This reduces overlap between disembarking and embarking passengers, which reduces peak traffic on the area roadways. Lower peak volumes mean less need for measures like temporary traffic diversions and generally less noticeable traffic on area streets.

# **Dedicated Turning Lane Via Parking Restriction**

NYCEDC worked with NYCDOT to change parking regulations to be "NO STANDING SUNDAYS 6 am-3 pm" along Van Brunt Street approaching Bowne Street in both directions to set up a dedicated turning lane for traffic entering BCT. This is expected to make traffic more efficient along Van Brunt Street, including for the B61 bus.

# Continuous

# **Traffic Enforcement Agent (TEA) Deployment**

NYCEDC collaborates with NYPD to strategically deploy TEAs at key locations around BCT on ship call days. Through ongoing evaluation, the deployment plan is refined to maximize efficiency, with optimal locations shared between NYPD and private traffic managers. This strategy can be adjusted accordingly (e.g. with higher or lower TEA counts and a shift in location) to ensure smooth traffic movement in Red Hook. Based on initial assessment of the traffic conditions, a deployment plan for TEAs and traffic agents were developed to prioritize vehicle movement of key intersections and streets (Figure 9). With input from the community regarding additional interest areas such as Sullivan Street and its intersection with Van Brunt Street, as well as Imlay Street, NYCEDC will continue to refine deployment plans in partnership with NYPD to ensure safety and efficient use of the streets for all road users.

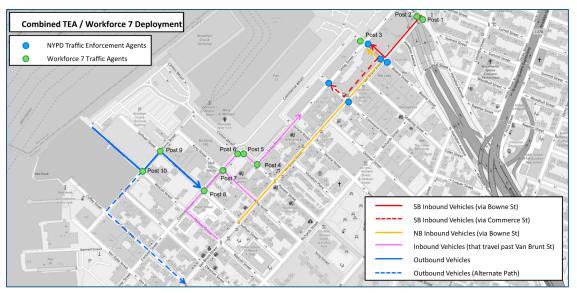


Figure 11: NYPD TEA and Private Traffic Manager Deployment Plan

## **Temporary Traffic Diversions**

To reduce bottlenecks during peak morning hours, NYPD redirects BCT-bound traffic via Commerce Street, preventing bottlenecks on Van Brunt Street. TEAs stationed at key intersections prohibit right turns onto Bowne Street, instead guiding traffic onto Imlay Street, a wider roadway that minimizes spillback onto Van Brunt Street. This simple adjustment significantly improves traffic flow.



Figure 12: Temporary Traffic Diversion via Commerce Street

## **Additional NYC Ferry Service**

The NYC Ferry's South Brooklyn route provides a direct connection to Red Hook, stopping at Atlantic Basin next to BCT. NYCEDC worked with NYC Ferry to introduce larger vessels and more frequent service on ship call days, encouraging cruise passengers to take the ferry instead of driving. This expanded service offers a faster, scenic, and stress-free alternative.

On days where cruise passengers may intersect with commuter ferry riders, added upland staff support in crowd and queuing control.

#### **Improving GPS Navigation**

NYCEDC worked with the major GPS vendors (e.g. Google, Waze, Apple) and FHV providers (Uber, Lyft) to direct drivers to the Bowne Street entrance of BCT, improving traffic flow. NYCEDC also worked with NYCDOT to convert Ferris Street between King and Sullivan Streets to a one-way southbound, reducing wrong-way traffic and the need for U-turns along King Street.

## **Strict Parking Enforcement**

Illegal parking on narrow Red Hook streets has long created congestion. NYCEDC strengthened coordination with NYPD to enforce "No Standing Anytime" regulations along Bowne Street, clearing the way for unimpeded traffic flow. These efforts have improved turning movements from Van Brunt Street and increased storage capacity on Bowne Street, ultimately easing congestion.

## **Brooklyn Waterfront Greenway Protection**

To keep the Greenway safe for cyclists and pedestrians, the cruise terminal management team deploys cones on ship call days to prevent vehicles from encroaching on the bikeway and curbside pick-up/drop-off areas along Conover and Pioneer Streets. We are actively exploring more permanent solutions to maintain safety and accessibility for all.



Figure 13: Traffic cone placement on Conover Street and Pioneer Street

#### Data tracking and impact analysis

NYCEDC and cruise terminal partners will continue tracking key metrics to measure the success of our traffic strategies and continuously optimize them for ship call days.

- <u>Regular Traffic Volume Counts</u>: NYCEDC, in coordination with the terminal operator, is conducting regular vehicle counts at BCT to assess the impact of our traffic management initiatives. This data directly informs decisions on shuttle and ferry optimization, and park-and-ride options.
- <u>Regular Cruise Passenger Survey</u>: In coordination with our cruise and terminal operator, NYCEDC will conduct periodic cruise passenger surveys with questions regarding general passenger origin, and their mode of transport to BCT. Information collected through passenger surveys can help identify effective shuttle routes and other alternative transportation modes to simultaneously reduce personal vehicle trips to the terminal, understand how cruise guests interact with Red Hook, and provide for safe and efficient vehicular movement in the Red Hook community.
- <u>Ridership and Travel Patterns</u>: To measure the change in cruise passenger arrival patterns, NYCEDC, in coordination with various stakeholders, will periodically measure ridership counts for the main modes of travel of cruise passengers to BCT. This allows NYCEDC to identify impacts and potential improvements to shuttles and other travel options. Metrics include ridership of shuttles and transfers, NYC Ferry ridership during cruise hours, taxi and FHV pick-up/drop-off information, BCT parking lot utilization rate, and independent group travels such as bus charters.

# **Stakeholder Coordination**

Proactive coordination between industry and public sector stakeholders is critical to successfully manage the vehicle traffic conditions at BCT and the surrounding streets impacted in the Red Hook neighborhood. Weekly coordination with stakeholders for the past three years has informed this plan.

# **Ongoing Refinement**

# Ferry Shuttle to Wall St./Pier 11

For peak cruise season, NYCEDC is providing free, direct, and more frequent ferry service between BCT and Wall Street/Pier 11, offering a more convenient travel option and reducing vehicle traffic to BCT by encouraging cruise passengers to use mass transit to Manhattan instead of personal vehicles, taxis, or ride share vehicles.

# **Airport Transfers and Shuttle Buses**

MSC Cruises has been running an airport transfer shuttle to take cruise passengers between area airports and BCT. These shuttles provide service from all three major airports (LaGuardia, JFK, and Newark Liberty). NYCEDC and Ports America worked with MSC to run shuttle buses to transport passengers from transit hubs (Moynihan Station, Grand Central Terminal), and popular destinations such as Times Square, which passenger surveys and other data identified as the most in-demand routes.

# **Park-and-Ride Shuttles**

NYCEDC completed a park-and-ride shuttle bus pilot program in March 2025 between BCT and Weehawken, New Jersey, in coordination with our terminal operator. This pilot captured the largest passenger demographic who responded to park-and-ride as a desired travel alternative to personal vehicles to and from BCT in a passenger survey conducted in summer of 2024 (16 percent of survey respondents mentioned park-and-ride from New Jersey as a desirable option). Based on the findings from this pilot, NYCEDC will continue to refine ideal locations and operational structures to provide ideal park-and-ride opportunities from regional parking facilities.

# **Public Input**

## **Public Comment Period**

To receive feedback from the community on the details of the plan, a draft of this report was posted on NYCEDC's website, and public comments were solicited between May 2 – June 1 of 2025 through an online feedback form. Public feedback specific to cruise-traffic was integrated into this plan where appropriate to better articulate issues and solutions, especially related to TEA placement; all additional feedback is summarized and addressed below.

## **Public Comments Received**

There were 12 comments for BCT that covered the following topics:

- Desire for increased use of ferries and shuttles to alleviate vehicle traffic
- Overcrowding of public transit services including NYC Ferry and MTA Bus (B61)
- Concerns regarding dangerous driving behaviors and overcrowding of public streets during cruise days, particularly on Sullivan Street and Imlay Street
- Cars and Trucks idling on public streets and inside terminals during cruise days
- Increase in unsafe pick-up drop-off activity on public streets during cruise days, particularly on Sullivan Street near P.S. 15
- Concerns regarding shore power adaptation of cruise vessels

All concerns and feedback within the objective of this plan are incorporated throughout; feedback that is not directly related to cruise traffic will be shared and coordinated with relevant stakeholders to address.

Although shore power is not within the immediate scope of this traffic mitigation plan, it is closely aligned with the goals of Local Law 54 of 2024, which in addition to the development of community traffic mitigation plans, mandates the use of shore power at cruise terminals. NYCEDC is actively advancing shore power implementation at the Brooklyn Cruise Terminal (BCT) to support more sustainable cruise operations. As part of this effort, a near-term solution is being deployed to enable MSC *Meraviglia* to connect to shore power by 2025. A broader, long-term expansion is also underway to support shore power connectivity for a wider range of vessels calling at BCT.

Provisioning trucks typically enter the cruise terminal during the early morning hours prior to the arrival of the cruise ship to reduce overlap with passenger vehicle trips. The truck staging area is provided within the Pier 11 Atlantic Basin footprint, and vehicles carrying refrigerated products may be required to keep their refrigeration unit running. NYCEDC will continue to coordinate with the terminal operator to reduce noise concerns regarding provisioning vehicles as much as possible. Although it is challenging to distinguish between cruise related and non-cruise related vehicle idling on neighborhood streets, NYCEDC has and will continue to coordinate with NYPD and private flaggers to limit unwanted vehicle behavior on neighborhood streets to a minimum by continuing TEA and flagger deployments.

As mentioned in our Continued Traffic Mitigation Strategies section, NYCEDC is actively monitoring travel patterns of cruise passengers including the use of public transit to and from the terminal. Within this effort, NYCEDC will continue to monitor the use of B61 bus route by cruise passengers. NYCEDC will coordinate with New York City Transit accordingly to address any overcrowding or service impacts to the route as needed.

# Next Steps

# **Ongoing Coordination & Community Engagement**

The completed, continuously implemented, and in-refinement strategies have dramatically improved congestion management and neighborhood conditions impacted by cruise-related traffic flow. The peak time for traffic reduced from a ~five-hour span of slow and at times stagnant congestion to what is now a 1.5-hour period of continued movement. We have also witnessed improvements in the reduction of individual vehicles, which will continue to be a primary focus of ongoing refinement and pilot development for park-and-ride, shuttle routing and policies, and ferry shuttle service.

# **Cruise Traffic Trends**

Cruise ship schedules and call frequencies are influenced by seasonal trends, market demand, and operational adjustments made by the cruise lines. Based on our current and future projections, the size and gross tonnage of vessels calling at our terminals are expected to remain stable over the next five years, ensuring consistent passenger capacity and manageable traffic flow. This stability helps minimize potential impacts on local communities while maintaining operational efficiency. We continue to collaborate with cruise line partners and stakeholders to monitor their deployment patterns and address any changes effectively.

# **Brooklyn Marine Terminal Development Efforts**

Since NYCEDC took over management of the Brooklyn Marine Terminal (Piers 7 - 12) from the Port Authority, NYCEDC has evaluated long term interventions to improve traffic flow, not only in and out of the Cruise Terminal, but through the entire site. Pending the outcome of the planning process, BCT's traffic infrastructure will be redesigned to keep cruise traffic off neighborhood streets.

# Glossary

- Automatic Traffic Recorder (ATR): Devices with sensors that count traffic passing through sections of streets.
- Community Traffic Mitigation Plan: As defined by Local Law 54 or 2024, "plan, developed in consultation with the department of transportation and the police department, that outlines proposed measures to reduce private or for-hire vehicle usage and encourage use of public transportation in a neighborhood where a cruise terminal is located in order to address traffic congestion and other disruptions resulting from the loading or unloading of cruise ships or similar vessels at a cruise terminal."
- Cruise Operators: Also referred to as "Cruise Lines" are companies offering cruise trips to the public.
- Cruise Terminal: Manhattan Cruise Terminal located at 711 12th Avenue, New York, NY. & Brooklyn Cruise Terminal located at 210 Clinton Wharf, Brooklyn, NY 11231.
- For-Hire Vehicles (FHVs): Vehicles providing pre-arranged transportation for a fee, including app-based services such as Lyft and Uber.
- Gridlock: Traffic congestion that blocks a city's network of intersections usually caused by overwhelming traffic volumes.
- Internal Roadway (within this plan's context): Private roadway within Brooklyn Marine Terminal that leads to Brooklyn Cruise Terminal.
- Levels of Service (LOS): Measurement of the average amount of delay experienced by each vehicle.
- Local Law (LL): Municipal regulation or statute passed by the City Council that affect the day-to-day lives of people living in, working in, or visiting New York City.
- Mode Shift: Change in the way people travel to their destinations such as using public transport instead of personal vehicles.
- MSC Cruises: Mediterranean Shipping Company.
- NYC Ferry: Ferry transit system operating with 25 landings across the five boroughs including a landing at Red Hook Atlantic Basin.
- Park-and-ride: Parking lot with mass transit connections allowing passengers to leave their vehicles closer to their origin and take mass transit to their destination.
- Pavement markings: Painted lines, arrows, and symbols to enhance safety by delineating lanes to guide drivers.
- Peak-Hour Traffic: Time of day when traffic volume reaches its maximum.
- Port of Call: Where a ship calls one of our cruise terminals without debarking or embarking passengers.
- Port Operator: Terminal Operator in our case for both MCT and BCT it is Ports America.
- Queue Lengths: Length of line in which vehicles stack up while waiting at intersections or entrances.
- Ship Call: The act of a cruise ship berthing at and departing from a cruise terminal.
- Shuttle Bus: A bus service designed to transport people between set destinations.
- Traffic Enforcement Agents (TEA): Agents within a division of NYPD who enforce traffic laws and can override traffic signal indications and other traffic control devices.
- Traffic Managers (TM): Also called "flaggers", a privately hired staff that ensure safe passage for pedestrians in busy intersections.

- Turning Movement Counts (TMC): Type of traffic data collection method recording the number of vehicles making left-turn, right-turn or through maneuvers at a specific intersection or a set of intersections.
- Upland: Referring to land as opposed to water.
- Volume to Capacity (v/c) Ratio: Indicator of how well a roadway or intersection accommodates traffic demand.
- Synchro: A simulation software used to analyze traffic conditions at individual intersections as well as those that are part of a roadway network.