



# MADISON SQUARE GARDEN | PENN STATION

## Compatibility Report to The New York City Planning Commission in Response to Madison Square Garden Special Permit Application

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## 0 INTRODUCTION

The National Railroad Passenger Corporation (Amtrak), Metropolitan Transportation Authority (MTA), and New Jersey Transit (NJT) (the Railroads) submit this report to the New York City Planning Commission (CPC) in connection with Madison Square Garden’s (MSG) application for an arena special permit pursuant to the proposed text amendment to the Zoning Resolution’s arena special permit (Zoning Resolution Section 74-41) and its relationship to New York Penn Station (NYP or the Station).

The proposed text amendment for the special permit includes among its required findings that “the arena shall be appropriately consistent and compatible with existing transit facilities and with proposed improvements to such transit facilities by the affected transit agencies.” This is wholly appropriate. Since its creation, Madison Square Garden’s configuration, use, and operation has been inextricably linked with Penn Station, as it was constructed directly atop the station as part of a 1960s-era plan to create an integrated office, entertainment, and transportation complex.

Penn Station is essential to MSG. Most MSG employees and the majority of MSG ticket holders use the Station to travel to and from the arena, which could not function at its current location without the Station. At the peaks before and after arena events, as many as 15,000 arena patrons stream into the Station. MSG’s dependence on Penn Station was planned for from the very beginning; MSG’s original special permit was granted in large part due to the mass transit access such co-location would provide.

Since then, the context and operating environment has changed dramatically, both for Penn Station and for MSG. The complex was built under 1960s building and safety codes and designed to accommodate approximately 200,000 daily pedestrian trips. By 2019, Penn Station saw about three times that passenger load, with 600,000 daily trips. Current estimates forecast daily pedestrian trips will reach as high as 678,000 by 2038. As a result, the Station experiences regular overcrowding and substandard conditions. For its part, MSG was designed primarily as a sports venue. Since then, an explosion in concerts and events have made it one of the highest-grossing arena-sized entertainment venues in the world. Its 1960s-era internal loading facility, however, is unable to accommodate modern tractor-trailers, and its integration with the Station has not been significantly updated.

MSG’s site plan and loading arrangements may have been compatible with Penn Station and the surrounding community in the early 1960s. Today, however, MSG’s existing configuration and property boundaries impose severe constraints on the Station that impede the safe and efficient movement of passengers and restrict efforts to implement improvements, particularly at the street and platform levels, as this report will demonstrate.

The Railroads have recently developed a Master Plan to address the deficiencies of the Station and provide a world-class customer experience. That Master Plan effort has informed the concept for the Penn Reconstruction project, which is in the design phase and will undergo a federal environmental review process. As a result of this Master Planning process, the Railroads’ vision and its implications for Madison Square Garden are sufficiently advanced to serve as a framework to inform a commitment by MSG to cooperate and support these improvements, even as design advances.

To become compatible with Penn Station, MSG will need to make changes to its site plan and loading arrangements to remove limitations on the ability of the Railroads to address urgent safety issues and improve the substandard experience of the Station's customers. This includes, among other actions detailed in this report, property swaps involving MSG's transfer of property interests at the former mid-block taxiway and along Eighth Avenue, MSG's contributions to the cost of improvements proportionate to their benefit to MSG, and MSG's approval of required construction work interfacing with MSG property.

The Railroads have begun discussions with MSG regarding the improvements envisioned by the Master Plan effort, but an agreement has not yet been reached. If MSG does not agree to take the necessary steps to ensure compatibility, the required finding of compatibility may not be able to be made by the City Planning Commission and the Railroads may recommend that the new special permit not be granted. The Railroads will continue their engagement with MSG in pursuit of an agreement that will enable the Railroads to achieve their goal of transforming Penn Station into a 21st-century, world-class facility that provides safe and accessible passage for MSG and Station users alike.

# 1 MADISON SQUARE GARDEN SPECIAL PERMIT AND ZONING TEXT AMENDMENT

The arena use MSG currently operates is not as-of-right under the City’s Zoning Resolution and a special permit must be issued by the City in order for it to take place. The current special permit under which MSG operates expires in July 2023.

MSG Arena, LLC (the Applicant) has applied for a new special permit pursuant to Zoning Resolution (ZR) Section 74-41 in order to continue operations of the Madison Square Garden arena, located in Community District 5, Manhattan. In conjunction with this application, the Department of City Planning is proposing a text amendment to Section 74-41 to update its findings.

Pursuant to the proposed text amendment, the City Planning Commission may permit arenas with seating in excess of 2,500 persons in the Pennsylvania Station Subarea B4 of the Special Hudson Yards District provided that, among other things:

- The proposed loading for the arena will not unduly interfere with the use of the public spaces, interfere with transit facilities, interrupt the flow of pedestrian traffic in the pedestrian circulation network, or interfere with the efficient functioning of adjacent streets.
- The arena shall be appropriately consistent and compatible with existing transit facilities and with proposed improvements to such transit facilities by the affected transit agencies.

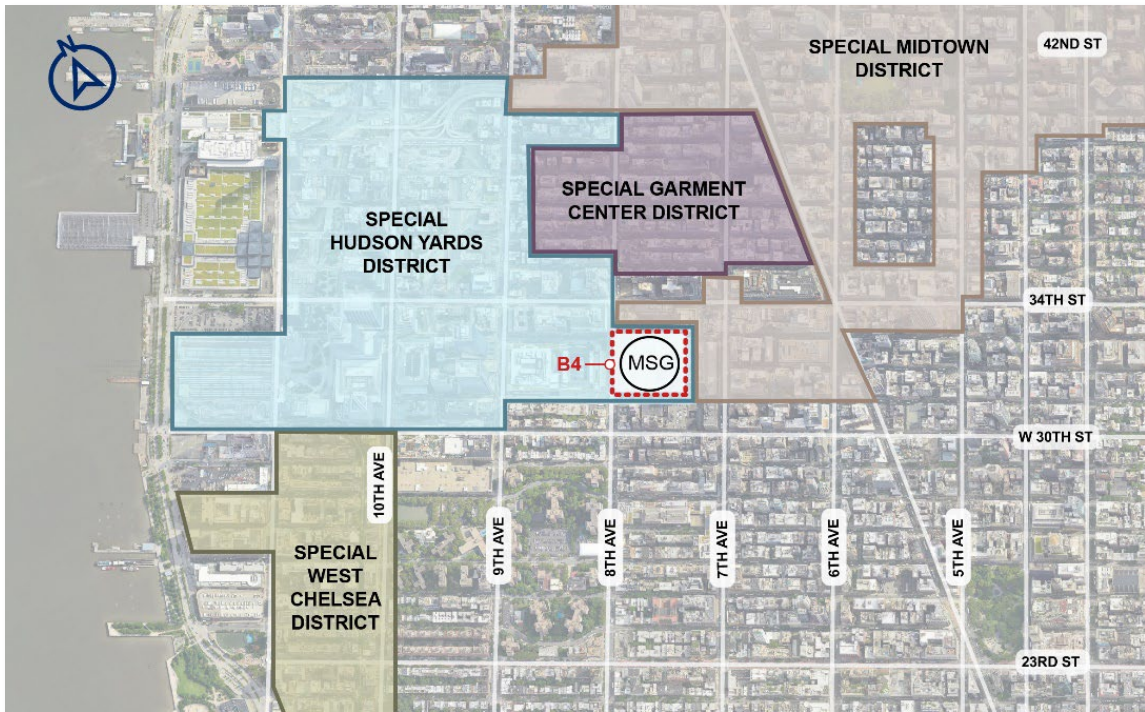


Figure 1.1 – Special Hudson Yards District

The Railroads submit this report on the Applicants’ proposed loading plan and the arena’s compatibility with the existing Station and planned improvements thereto, including those contemplated in the Penn Station Master Plan.

## 2 THE NEXUS BETWEEN PENN STATION AND MADISON SQUARE GARDEN

This section of the report lays out the historical context of that interrelationship and the extent to which MSG has depended on the transit services provided at Penn Station throughout its history.

### 2.1 History Of Penn Plaza

Since its creation, Madison Square Garden's configuration, use, and operation has been inextricably linked with Penn Station.

The creation of MSG came about at a time of declining ridership and financial viability for railroads. Once the largest railroad in the world by traffic and revenue, the Pennsylvania Railroad (PRR), the original owner of Penn Station, posted its first net loss in 1947 and its finances eroded steadily from there, as intercity passenger and freight rail services were steadily eclipsed by car and bus travel and truck freight. Trying to stave off bankruptcy, the railroad sought to monetize the valuable real estate occupied by Penn Station, comprising two square blocks of midtown Manhattan, while shedding the cost of maintaining the monumental 1910 Beaux Arts station building.

In a complicated development arrangement between PRR, the Madison Square Garden Corporation, and other partners, the original Penn Station building was demolished above street level starting in 1963. The Station became part of what was intended to be a physically and financially integrated office, entertainment, and transportation complex, branded as Penn Plaza, comprising the 2 Penn Plaza office building (now PENN 2), Madison Square Garden, and a reconstructed, entirely underground Penn Station. All were completed by 1968. The new Station was designed to accommodate 200,000 daily passenger trips, about one-third less than its previous high in 1945, with railroad ridership still trending downward.

The overall site plan for Penn Plaza was a commercially driven compromise, reflecting the expectation that the above-ground development would be the revenue driver for Penn Plaza. The integrated design was governed by a version of the NYC Building Code that was significantly less stringent than the current version. The National Fire Protection Association standard NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems (NFPA 130) had not yet been adopted.

The site plan imposed limitations on the functionality of the Station and the experience of its customers. These were considered by the PRR, and the City, to be a reasonable compromise at the time it was designed. Now, however, it is a major constraint on improving the Station.

Since the 1960s, the context under which Penn Plaza operates has changed considerably. Commuter ridership exploded. In 1965, New York State bought the Long Island Rail Road (LIRR), the PRR's greatest money-loser, to keep it from going under. It was folded into MTA in 1968, stabilizing it financially. Ridership grew steadily as it was brought to a state of good repair. The PRR, soon after merging with the New York Central and New York, New Haven and Hartford railroads to become the Penn Central Railroad, filed for bankruptcy in 1970. Congress created Amtrak to take over intercity passenger railroads in the US in 1971, absorbing the PRR's intercity network, including Penn Station. Congress created Conrail in 1976 to take over other failing regional passenger and freight lines in the Northeast and Midwest, absorbing the PRR's



commuter routes in New Jersey, which were taken over by NJ TRANSIT in 1983. NJT completed the Kearney Connection and began direct service to Penn Station on their Morris and Essex lines in 1996, causing a major jump in ridership at Penn Station. NJT built a new service area for its passengers on the upper level of the Station.

Viewed by PRR in the 1950s and 1960s as a declining asset, the Station has since re-established itself as the busiest train station in North America and is now bursting at the seams. By 2019, Penn Station saw about three times the passenger load anticipated in the 1960s, with 600,000 daily trips. Current estimates forecast daily trips to reach 678,000 by 2038. In addition to ridership increasing, standards have changed. The NYC building code has been significantly strengthened since the 1960s and NFPA 130 – adopted in 1983 and also strengthened since then – has been adopted by the Railroads, leaving the Station non-compliant with a number of modern operational and safety requirements.

Above ground, usage also has changed in profound ways. MSG was designed as a multi-use sports and entertainment facility. The 20,000-seat arena was complemented by the 4,500-seat Felt Forum hosting smaller events, a 48-lane bowling center, and public skating in the arena between sports events. Its biggest non-sporting attraction historically had been the circus, hence its helical loading ramp up five stories to the floor of the arena, still known as the elephant ramp.

Shortly after MSG was opened, the character and frequency of its non-sporting events changed dramatically with the birth of the arena tour for major rock-n-roll and pop performers. The first arena shows took place in late 1968, including one at MSG in its very first year of operation. This touring format grew rapidly throughout the 1970s, becoming a key revenue generator for MSG, which is now one of the highest-grossing arena-sized entertainment venues in the world. The arena shows grew steadily larger and more complex, with the largest now requiring up to 25 semi-trailers to transport.

Also in 1968, most states, including New York, raised the maximum height of trucks to 13'-6", too late to influence the height of the truck loading entrance to MSG, which has the standard clearance in effect when it was designed, 12'-6". As a result, the tractor-trailers in use today cannot enter the arena building or use MSG's internal truck loading bay, which in any case is too small to handle the large number of semi-trailers needed for major events. MSG must instead unload and load from trucks parked in the taxiway between MSG and PENN 2 or from 33<sup>rd</sup> or 31<sup>st</sup> Streets, using an armada of forklift trucks to drive equipment up the elephant ramp.

The bowling center closed in 1988 as interest in bowling declined. The next year the arena and the Felt Forum (now the Theater at Madison Square Garden) were renovated. The Theater's seating capacity was increased to 5,600 to better compete with other general-seating venues. The Theater is now second only to Radio City Music Hall in size and bookings in NYC.

The taxiway between MSG and PENN 2 was closed for taxi drop-off and pickup shortly after the attacks on the World Trade Center in September 2001 for security reasons and remains closed.

Overall, the context in which Penn Station and MSG operate today is vastly different from the mid-century commercial and operational environment for which they were jointly designed.

## 2.2 Madison Square Garden Dependence on Penn Station

MSG's dependence on Penn Station has been recognized over the course of the arena's history. MSG has depended on its adjacency to Penn Station to obtain (and thereafter maintain) its special permit. To issue MSG's original special permit to operate an arena in excess of 2,500 seats in 1963, the City Planning Commission was required to find that the arena was "so located as to draw a minimum of vehicular traffic to and through local streets in nearby residential areas" and that "due consideration has been given to the proximity of bus and rapid transit facilities to serve such use." ZR § 74-41(a). In making this finding, the Commission emphasized the interconnection between MSG and Penn Station:

"It is anticipated that 70 per cent of the patrons of the garden will utilize public transportation.... Few, if any, other areas in the City are as well served by public mass transportation facilities.... Because of improved rapid transit facilities at the proposed site, it is anticipated that the volume of travel to the Garden by auto and cab will be reduced below the existing volume at the present site.... [T]he facility is ideally located so as to encourage the use of mass transit."

- City Planning Commission Report No. CP-17682 at 47-50 (Jan. 16, 1963)

The benefits that flow to MSG from Penn Station are not merely zoning-related. While its earlier locations faltered and shuttered, the arena at its current location has thrived due to its perch atop the busiest transit hub in the Western Hemisphere for 55 years, longer than at any of its previous three locations. Most MSG employees and the majority of MSG ticket holders use the Station to travel to and from the arena, which could not function at its current location without the Station. At the peaks before and after arena events, as many as 15,000 arena patrons stream into the Station. Thus, in their advocacy for locating the arena at its current location, Madison Square Garden Corporation and its business allies have emphasized its "unparalleled transportation facilities" to argue that the arena would not "make economic sense on any other site" and "to dismiss suggestions that the MSG complex be constructed elsewhere in Manhattan."<sup>1</sup>

It is plain that Penn Station is critical infrastructure for MSG, as integral to its operations as the machinery that makes the floor ice for the New York Rangers or the HVAC equipment that heats and cools the arena for a Knicks game or a concert.

<sup>1</sup> Eric J. Plosky, "The Fall and Rise of Pennsylvania Station: Changing Attitudes toward Historic Preservation in New York City" at 27 (Feb. 2000).

### 3 PENN STATION PLANNING CONTEXT

Penn Station is a critical asset for the entire New York metropolitan region. This section of the report establishes the transportation planning and physical context in which Penn Station operates, an essential factor in determining the compatibility of MSG’s arena use atop it.

#### 3.1 Transportation Conditions

Penn Station is a critical transportation hub for the region. It has by far the highest ridership of any station in the Amtrak, LIRR, and NJT rail networks, helping the New York region boast the highest public transportation use in the country. In addition to contributing to the economic vitality of the region, high-quality public transportation is a matter of equity, with three million area residents living below the federal poverty level who rely disproportionately on trains, buses, and subways to get to and from their jobs, pick their children up from school, and conduct their daily lives.

Although COVID and hybrid work arrangements have reduced overall ridership from 2019 levels (the last full year before COVID), it is necessary to plan for ridership to return to its pre-COVID growth trend over time. The projected growth of NY/NJ metropolitan region communities is expected to increase the number of daily passenger trips in Penn Station by about 15 percent from its pre-pandemic levels over the next two decades, from 600,000 in 2019 to 678,000 in 2038. This projected growth excludes passenger trips in Moynihan Train Hall and in the proposed future expansion of the Station. It also accounts for the recent diversion of some LIRR trains from Penn Station to Grand Central Madison (reducing ridership) and the initiation of Metro North Railroad (MNR) service to Penn Station (increasing it). All told, this growth will exacerbate overcrowding and will worsen already substandard passenger conditions in the Station.

The mode and route that passengers use to access the Station is also key context in planning for its future. Passengers are about evenly split between those arriving at or departing from the Station by walking and by subway. There are also geographic patterns to the arrivals and departures. Approximately 70 percent of passengers arrive from or depart to the east of the Station, while 30 percent travel to or from the west. See **Figure 3.1**. This figure includes recent development on the West Side, including Hudson Yards, and takes into account projections for additional development that is planned but not yet fully built out. Historically, the geographic split was even more pronounced.



Figure 3.1 – Passenger Origin-Destination Pattern

This origin-destination split is roughly mirrored in where passengers wait for and board their trains, with about two-thirds doing so on the east side of the Station and about one-third on the west side of the Station. Patterns of use also emerge vertically within the Station, which has upper, lower, and intermediate levels. The lower level sees by far the highest usage by passengers waiting for, boarding, or alighting from their trains, as it has the most direct access to subways and train platforms. Only 12% of passengers currently choose to wait for, board, or alight from the upper level. These patterns are important factors in designing how the Station should be reconfigured.

Ridership is robust across all services at the Station. Amtrak estimates that 30 percent of all intercity rail trips in the nation and 60 percent of NEC intercity trips originate or terminate at NYP. The Station is LIRR and NJT’s highest ridership station by far, even with the addition of LIRR’s Grand Central Madison service. The two integrated subway stations are both among the 10 highest ridership stations in the entire subway system. The breakdown of the estimated 600,000 daily trips in the Station is shown in **Table 3.1**.

**Table 3.1 – Average Weekday Passenger Trips at NYP, Fall 2019**

Average Weekday Passenger Trips at NYP, Fall 2019	
Amtrak	34,000
LIRR	237,000
NJT	187,000
Subway and others	142,000
<b>TOTAL</b>	<b>600,000</b>

Note: “Others” include office workers and pedestrians patronizing in-station retail.

With the addition of Moynihan Train Hall to the Station Complex, there is now also a significant flow of travelers moving across Eighth Avenue between the Moynihan and Penn Station sides of the Complex to transfer between intercity, regional, and local transit services and access amenities located on specific sides of the Station Complex. This new pedestrian behavior increases the importance of enhancing connections, sightlines, and wayfinding systems across Eighth Avenue to help travelers orient themselves and navigate around the Station Complex.

### 3.2 Station Conditions

Penn Station is located at the heart of Manhattan’s Central Business District, bounded by Seventh and Eighth Avenues to the east and west and 31<sup>st</sup> and 33<sup>rd</sup> Streets to the north and south. The Station, as currently configured, is primarily located underground, below Madison Square Garden and the PENN 2 office tower. Interconnected with the Station is the new Moynihan Train Hall, located in the former Farley Post Office building across Eighth Avenue, between 31<sup>st</sup> and 33<sup>rd</sup> Streets (see **Figures 3.2 and 3.3**).





Figure 3.2 – New York Penn Station Location Plan (viewed from the west)

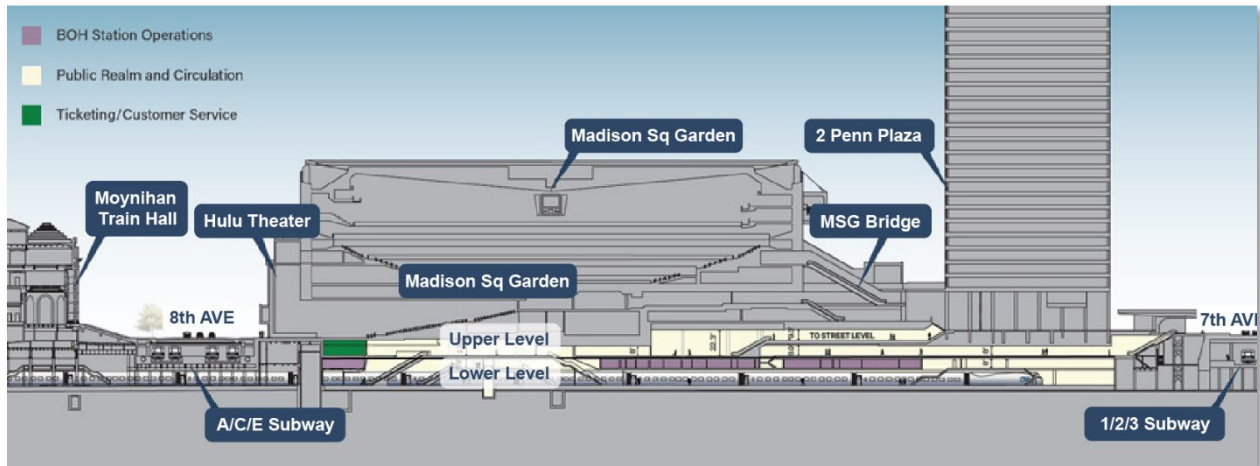


Figure 3.3 – Section View Through the Site

The Station is owned by Amtrak, with LIRR and NJT operating their services under lease agreements. Amtrak continues to maintain the Station and the train shed and rail infrastructure

below it. LIRR is responsible for maintenance within its own leasehold in the Station, and NJT's portion of the Station is maintained in cooperation with Amtrak under an operating agreement.

As the busiest rail station in the nation, NYP should be a flagship station, serving to attract and retain ridership across intercity rail, commuter rail, and local transit services, and supporting economic vitality across the region. The original Penn Station building constructed in 1910 was such a flagship. When it was demolished and the Station reconstructed in the 1960s, the Station retained only its two underground levels, with Madison Square Garden and the PENN 2 office tower constructed above it. This resulted in the Station losing the street presence and daylight that had been defining features, and, critically, left the Station cramped and ill-equipped to meet operational needs. As a result, the existing operating environment has deficiencies in terms of crowding, safety, accessibility, and user experience.

Since the 1960s reconstruction of the Station, the Railroads have undertaken various projects to improve its operations and customer experience. In past decades, this has included a new service area and intermediate-level boarding concourse for NJT, a new concourse for LIRR (the Central Concourse), improvements to LIRR's 33<sup>rd</sup> Street Concourse, and a new entrance at 34<sup>th</sup> Street near Seventh Avenue for LIRR. Most recently, Amtrak and the State of New York completed the Moynihan Train Hall in 2021. MTA completed another new entrance at 33<sup>rd</sup> Street near Seventh Avenue (the East End Gateway) at the same time and widened the LIRR 33<sup>rd</sup> Street Concourse and raised its ceiling to 18 feet, completed in March 2023. Amtrak and Vornado, the owner of 2 PENN, are currently expanding the Station's main entrance at 32<sup>nd</sup> Street and Seventh Avenue and adding an elevator to make it accessible.

Moynihan Train Hall across Eighth Avenue now serves as Amtrak's primary ticketing, waiting, and boarding facility at the Station complex, representing a significant improvement for a portion of the Station's users. Many Amtrak passengers, however, continue to use the historical Penn Station facility and Amtrak operations and maintenance functions continue to operate out of that facility. The reconstructed LIRR Concourse provides a significantly improved east-west passage within the Station, but it does not offer direct access to the vast majority of tracks.

While these improvements have been valuable, their impact in addressing the Station's safety and efficiency challenges has been limited to discrete areas of the Station within those projects' physical footprint. A comprehensive reconstruction is necessary to address the Station's substandard conditions and provide a superior passenger experience.

## 4 PENN STATION MASTER PLAN

Addressing the deficiencies in the existing Station requires a coordinated and comprehensive effort. This section of the report outlines the planning effort that has been undertaken by the Railroads to this end, providing key context for evaluating the compatibility of MSG’s arena use with planned improvements to address current challenges and constraints.

In 2020, Amtrak, the MTA, and NJT together commissioned a Master Plan study to develop a design concept for enhancing station safety, operations, and user experience, and transforming Penn Station into a modern, world-class transportation facility. The Master Plan provides the framework for Penn Reconstruction, a planned improvement project for Penn Station. The Penn Reconstruction project is in the design phase and will require a federal environmental review process, continued design work, and public engagement.

The Master Plan aims to simplify the Station’s layout to alleviate overcrowding and improve circulation and navigation by centralizing all public circulation, boarding, and most public-facing services on the lower level. Most non-public station operations and back-of-house functions would be relocated to the remaining upper-level spaces, out of the way of public circulation. This would enable the expansion of public concourses on the lower level to accommodate projected future ridership increases, particularly on the east side of the Station, where passenger concourses currently are the most crowded.

The Master Plan also focuses on improving vertical circulation to the Station’s platforms, proposing an overall one-third increase in the number of stairs, escalators, and elevators. The Master Plan envisions at least two elevators to each platform to improve accessibility, and at least two escalators and five stairs to allow them to clear faster. The NJT intermediate level, located in the southeast quadrant of the Station, would be removed, its functions integrated into the lower level, and the Central Concourse would be widened and fully extended to the south. See **Figure 4.1**.

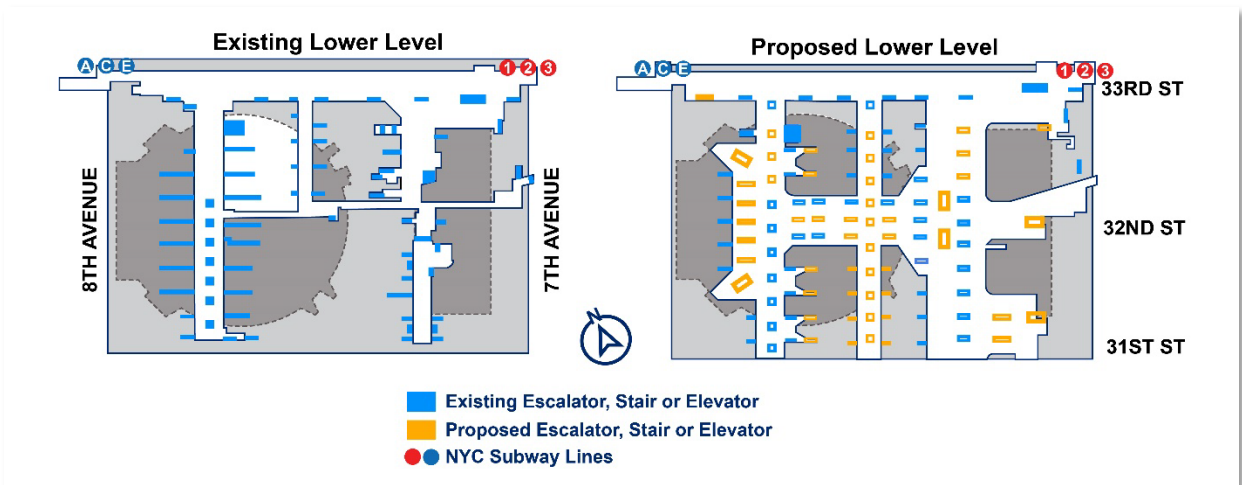
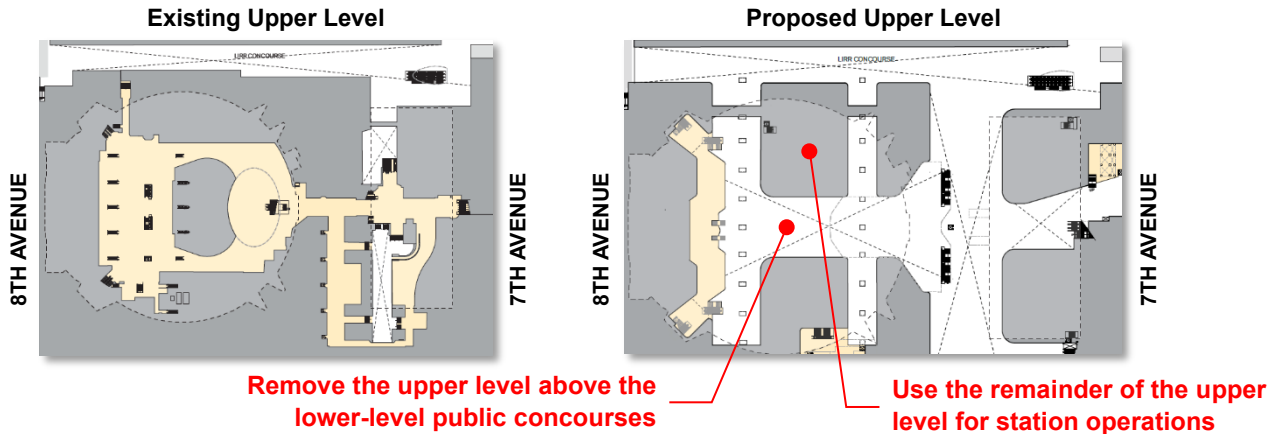


Figure 4.1 – A Single Public Level

In addition to widening the lower-level concourses, the portions of the upper level immediately above the public concourses would be removed, doubling the height of the concourses to relieve the cramped feeling, improve wayfinding and make the concourses safer by providing a reservoir

space well above head height for smoke to rise into in a fire event, keeping the concourses useable for longer in the event of a fire. See **Figure 4.2**.



**Figure 4.2 – Increasing Head Height in the Public Concourses**

The proposed Penn Reconstruction project would accomplish the following:

- Enhance safety:
  - Relieve overcrowding, improve pedestrian flow, and widen the public concourses on a single boarding level;
  - Provide improved or new fully accessible entrances/exits from the single boarding level directly to the street level, so that the Station can be evacuated faster in emergency events and operate more comfortably in normal conditions;
  - Provide for a one-third increase in the number of stairs, escalators, and elevators to and from the platforms so that they are more accessible and will clear faster;
  - Improve fire life safety by modernizing ventilation systems to control and purge smoke while utilizing increased ceiling heights in all public concourses that provide compartments for smoke to rise into, keeping the concourses useable for a longer time in a fire event, and;
  - Provide fire sprinkler protection throughout the Station.
- Improve station operations:
  - Centralize public services like boarding, ticketing, waiting and restrooms on a single public level;
  - Centralize most non-public Station operations on a partial upper level, out of the way of public circulation;
  - Rationalize the layout of public concourses to ease navigation and make it faster to get around the Station;



- Modernize and unify the Station's outdated building systems to meet the most current standards for safety, energy efficiency, air quality, and comfort; and
- Provide state-of-the art passenger information systems.
- Create an exceptional passenger experience:
  - Create clear street presence for the Station with new and improved entrances and unifying architectural treatments, making the Station easily recognizable to the public;
  - Bring daylight into the Station;
  - Establish a diverse public art program for the Station;
  - Provide retail amenities, station services, monitored waiting areas, charging stations, and ample restrooms.

The Master Plan process was undertaken with full consideration of the context of MSG above it. Where possible, the Master Plan proposes changes within the Station's existing envelope. But many critical elements require changes to that envelope and thus the cooperation of MSG. The Master Plan and the Railroads' vision inform the basis for MSG to cooperate and support future station improvements.

## 5 COMPATIBILITY ASSESSMENT

This section of the report outlines the ways in which the arena's current configuration impedes the safe and efficient operation of the Station and interferes with proposed improvements to address the Station's deficiencies and the steps that would need to be taken to ensure the compatibility of MSG with the Station.

### 5.1 Overarching Challenges

While not every challenge Penn Station faces is the result of its physical location underneath Madison Square Garden, the arena's configuration atop the Station is a key global constraint.

The Master Plan study identified inadequate vertical circulation to the platforms and into and out of the Station, crowding, and confusing navigation as three of the existing Station's key safety challenges. The platforms do not clear fast enough to meet NFPA 130 requirements. Areas throughout the building exceed the safe travel distance to exit requirements in the NYC and NYS Building Codes, some by more than 40 percent, due to insufficient exits in key areas of the Station. The LIRR lower level and NJT intermediate-level concourses are too narrow for the number of passengers using them, are incomplete, and create a cramped environment. The large cohorts of passengers disembarking from multiple arriving trains at close spacing during the morning peak period overwhelm the limited number of exits to the street, only half of which have elevators, with no elevators from the Station to Eighth Avenue at all.

The Station's lack of street presence is problematic. Many Station entrances and signs today are not clearly visible, as they compete with adjacent structures, advertisements, and retail signage, as well as the signage for Madison Square Garden. The challenge is exacerbated for customers needing ADA-accessible routes, since there are currently limited elevators down to the Station from the street and Station platforms are obstructed with support columns. Daylighting is almost non-existent because most of the Station is located below-grade underneath MSG and PENN 2. Existing ceiling heights are constrained by the minimal floor-to-floor heights and existing structural elements. Ceiling heights on the Lower Level are particularly low, ranging from 7 feet to 7.5 feet in height in the Exit and Central Concourses.

All of these deficiencies are the result of the integrated design compromises made in the 1960s when Penn Plaza was created under now-outdated codes, with mistaken projections of Station ridership, and within operational environments and usage of both Penn Station and MSG that bear little resemblance to current conditions.

Because MSG and Penn Station were originally an integrated design, the various Penn Station improvements needed to address the deficiencies in how the Station operates today require carefully coordinated changes to MSG's loading and site plans.

Beyond these overarching challenges, MSG's configuration and use imposes specific constraints on the Station. These specific constraints are detailed below.

### 5.2 The Mid-Block Taxiway and VIP Entrances

The former mid-block taxiway between MSG and PENN 2 is a key constraint on the proposed improvements to Penn Station. The area, which has not been used for taxi drop-off or pickup since September 11, 2001, is owned by MSG. See **Figure 5.1**.

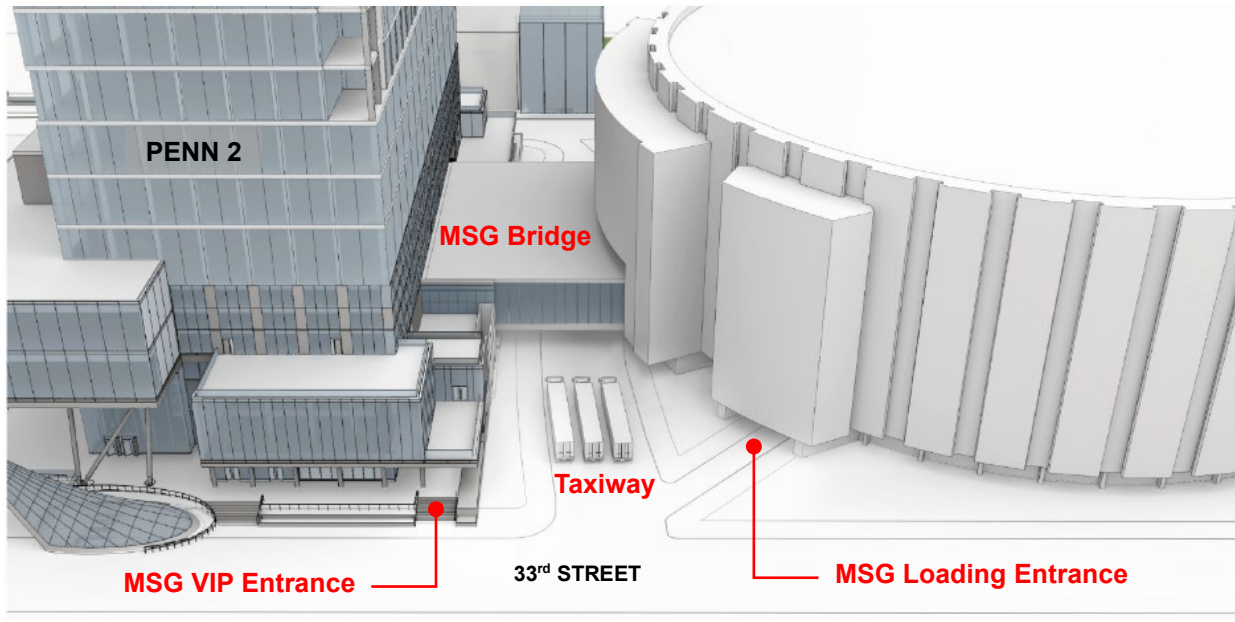


Figure 5.1 – Former Taxiway, MSG

MSG currently uses the north end of the former taxiway for loading, constrained by the presence of the MSG Bridge, which does not provide sufficient vertical clearance above the taxiway for trucks to pass under it. The special permit application does not propose any substantial change to this operation. See **Figure 5.2**.



Figure 5.2 – MSG Bridge and Typical Truck Loading in the Taxiway

The Railroads propose repurposing this space to create a new train hall that would address many of the Station’s most pressing deficiencies. (It would also significantly improve MSG’s loading operation, as discussed below in section 5.3). The new, expanded east concourse would be located below the former taxiway, with a new atrium rising 100 feet above it and new station entrances at 33rd and 31st Streets.

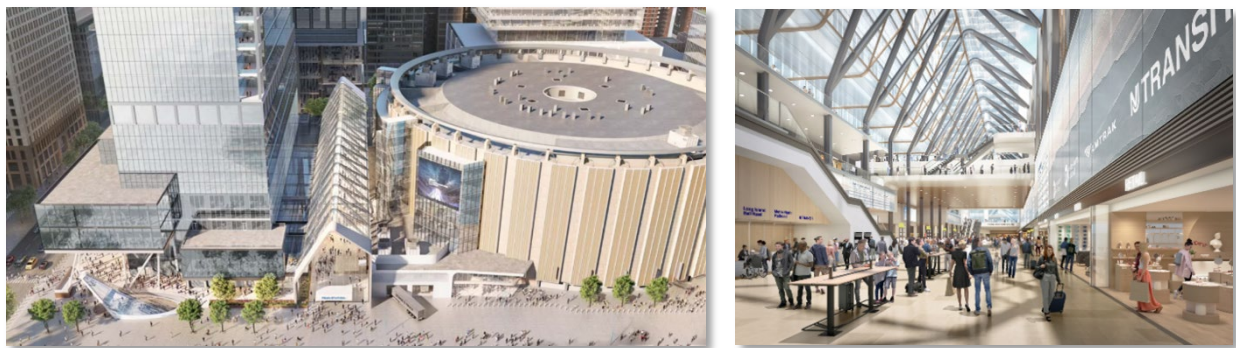
Doing so would advance key safety goals, including providing a reservoir for smoke in the event of a fire, allowing passengers more time to safely evacuate the Station. Today, major entrances to the Station are located only on Seventh and Eighth Avenues because MSG and PENN 2 cover

most of the block. The limitation on the placement of major entrances is why the distances from various areas of the Station exceed the maximum travel distance prescribed in the City and State building codes, a significant safety concern. The addition of the new atrium with two new entrances/exits would help reduce the travel distance from areas of the Station to the nearest exit and provide high-capacity, highly visible and fully accessible egress from the busiest area of the station. See **Figure 5.3**.



**Figure 5.3 – Proposed Concept for New Mid-Block 33rd Street Entrance**

The atrium would also bring daylight down into the spacious concourse. The east concourse and atrium (together, the Mid-Block Train Hall) would serve as the central architectural feature of the Station. It would increase the visibility of the Station to make it easier to find, would better integrate the Station with the public realm and create a sense of civic importance. See **Figure 5.4**.



**Figure 5.4 – Proposed Concept New Mid-Block Atrium**

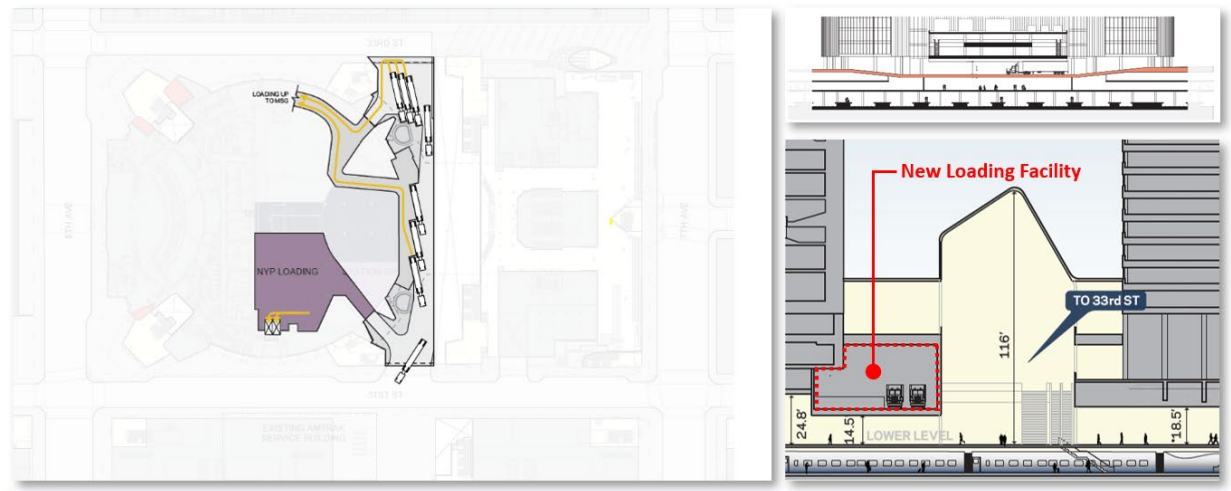
To complete the transformation of the east half of the Station, the Master Plan proposes to reconstruct the current bridge between 2 PENN and MSG, remove the enclosure, and relocate the MSG HVAC equipment currently on top of it. Further design work will determine the precise approach to integrating the bridge and relocating the MSG HVAC equipment, which is crucial to maintaining the proper humidity to support NHL-quality ice.

This proposed configuration would enhance safety and passenger flow and would bring daylight into the Station, helping to relieve overcrowding and greatly enhance the passenger experience.



### 5.3 Proposed MSG Loading and VIP Entrances

Removing the former taxiway to make room for the new mid-block Station entrances and atrium, a key safety priority for the Railroads, would require changes to MSG’s loading plan, providing an opportunity to create a more efficient loading facility. For this, the Railroads would require MSG’s collaboration. The Master Plan proposes a new, below-grade loading facility that would be created by lowering a sliver of the taxiway adjacent to MSG. It would use some MSG space and some space in the Station for the new loading facility as shown in **Figure 5.5**. Further design work will inform the precise approach to improving loading conditions.



**Figure 5.5 – Proposed Concept MSG Below-Grade Loading Facility**

This concept reduces the impact of MSG’s loading on the surrounding City streets, providing a significant benefit to the arena and the public realm by moving current loading positions out of public view and removing the clearance limitation that currently prevents large trailers from taking full advantage of the existing loading configuration, in addition to accommodating the Station’s needs.

The nearby MSG VIP entrances would be moved to the west side of the taxiway as well, creating more flexibility for construction of the new atrium and providing a more direct entrance route for MSG VIPs. New extensions of MSG would be constructed on both 33<sup>rd</sup> and 31<sup>st</sup> Streets adjacent to the new atrium to serve as entrances and exits for the new loading facility and VIPs, as seen in **Figure 5.5** above. The area of the VIP entrances would be integrated with the new atrium, making it wider, and integrating the Mid-Block Train Hall with PENN 2.

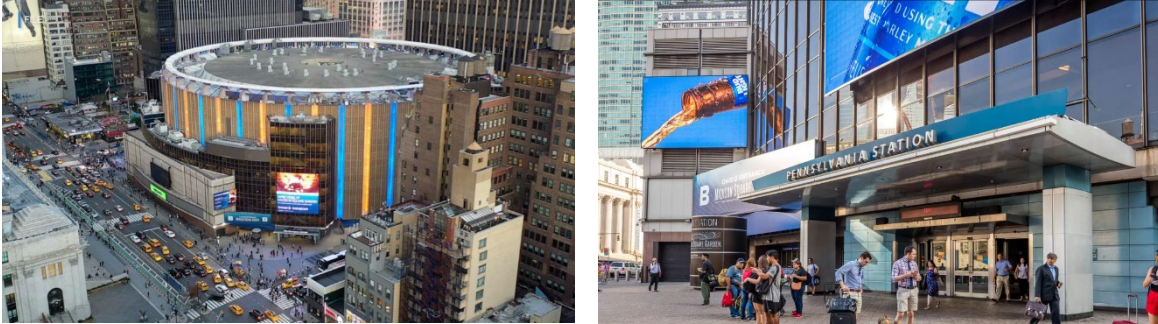
The former taxiway served customers across PENN 2, Penn Station, and MSG when it functioned as a taxiway. Since it was closed it has served as more of a barrier to customer access. Re-purposing it as an atrium and underground loading facility would remove that barrier and improve accessibility and pedestrian circulation through the area.

### 5.4 Eighth Avenue Entrances

The Eighth Avenue entrances represent another key constraint imposed by MSG and opportunity to improve the Station and the arena as proposed by the Master Plan.

The existing Eighth Avenue entrances to Penn Station at the corners of 33<sup>rd</sup> and 31<sup>st</sup> Streets open onto underutilized corner plazas, adjacent to entrances to MSG. These entrances and plazas are owned by MSG, with the entrances to the Station operating pursuant to an easement.

See **Figure 5.6**.



**Figure 5.6 – Existing Eighth Avenue Entrances to Both Penn Station and MSG**

The existing configuration imposes several key constraints on the Station. Fundamentally, there is the matter of space. There is no accessible entrance to the Station on Eighth Avenue, as the current entrance easements are not large enough to accommodate the installation of an elevator. The same constraints apply to HVAC and air-handling equipment. Additional HVAC equipment would be necessary to bring the Station into compliance with modern codes—requiring additional aboveground space.

The Station entrances also lack public visibility. To the public, the identifying signage for these entrances is vastly overshadowed by signage and large video screens for MSG, with visitors to the Station frequently asking passersby where the Station is, even as they stand just steps away from its entrance. The blank wall of the MSG Theater, located between these two corner entrances, further diminishes the public realm, and overshadows Station entrances.

MSG does not propose any changes to the overall size of the on-site public spaces but is proposing minor changes to public spaces along Eighth Avenue. These proposed changes include:

- Replacement of walking surface with high-quality decorative pavers and pigmented concrete.
- Five planter benches along the northeast corner of the block, near the Station entrance at West 33<sup>rd</sup> Street and Eighth Avenue, two planter benches near the Station entrance at West 31<sup>st</sup> Street and Eighth Avenue, and two planter benches mid-block on 31<sup>st</sup> Street.
- Multiple planters along the West 33<sup>rd</sup> Street building wall and associated lighting enhancements.

The Applicant also proposes the inclusion of 20 bike parking spaces in the covered area of the mid-block taxiway. None of these changes would address the Station’s existing constraints.

The Railroads intend to construct new, larger entrances away from the arena drum in the plazas at the corners of Eighth Avenue. This would increase their egress capacity and add accessible elevator access to the Station from Eighth Avenue for the first time. It would also greatly improve the Station’s visibility from the street, bring daylight into the Station, address the dead zone created by the MSG Theater, and improve connectivity to Moynihan Train Hall. See **Figure 5.7**.



Figure 5.7 – Proposed Concept for Eighth Avenue Entrances

## 5.5 Ventilation and Smoke Control

A priority for the Railroads is upgrading station ventilation and smoke control systems to meet or exceed all modern standards. However, the presence of MSG atop the station constrains the Railroads' ability to address this issue.

The Station needs a system in which the air handlers are arrayed outside the Station on available roof space to improve ventilation, heating and cooling capacity, smoke control and clearance, and equipment efficiency. New roof space needs to be created to accommodate this. The HVAC equipment would be located on top of the new structures already discussed – the new extensions of MSG adjacent to the taxiway that would serve as entrances for the new loading facility and the new, glass-enclosed entrances on Eighth Avenue. These new structures are therefore needed to address multiple deficiencies in the Station. See **Figure 5.8**.



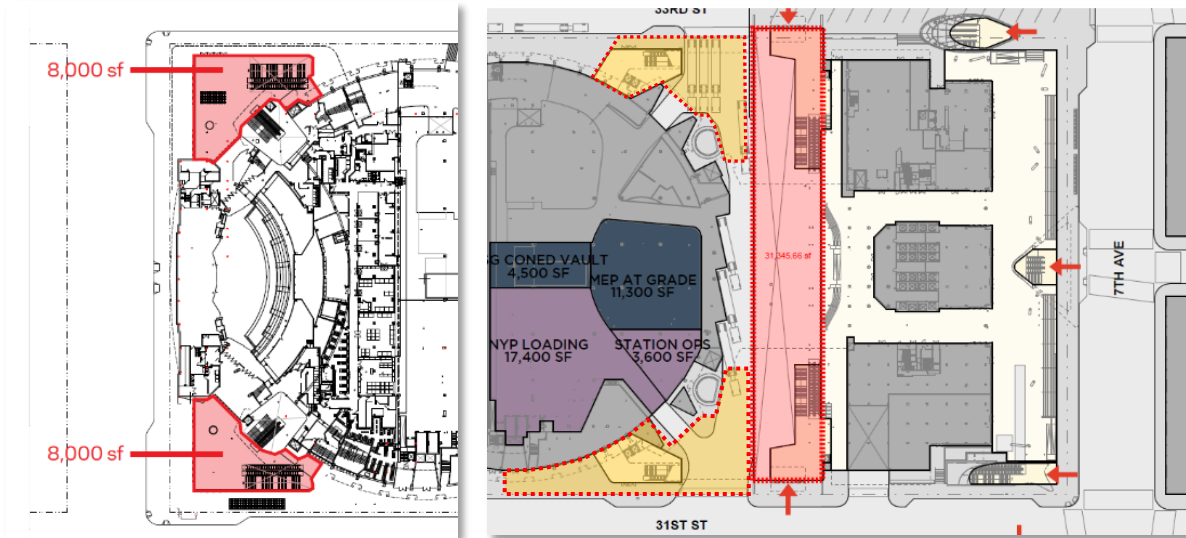


Figure 5.8 – Proposed New Extensions of MSG with Roof Space for HVAC Equipment

## 5.6 Compatibility of MSG’s Loading Operation

In addition to the general question of compatibility, the special permit text amendment also includes a more specific provision related to loading. The City Planning Commission must find that the proposed loading for the arena will not unduly interfere with the use of the public spaces, interfere with transit facilities, interrupt the flow of pedestrian traffic in the pedestrian circulation network, or interfere with the efficient functioning of adjacent streets. The Applicant submitted a Loading Plan, dated October 21, 2022, as part of its special permit application.

Although the Station and MSG have been co-located for 60 years, there are significant challenges that impede the Station’s ability to effectively serve its transportation purpose in the present day. The Loading Plan, as submitted, interferes with transit functions, including the flow of pedestrian traffic around the Station. It is not compatible with the existing Station or planned improvements.

Just as the Station faces operational constraints as a result of outdated, 1960s era MSG/NYP site plan elements, so too does MSG. As described above, MSG’s original loading facilities were made obsolete shortly after they opened by the increased allowable height of the tractor-trailers used for event loading. As a result, the former taxiway is currently used for monitored loading and staging operations and pedestrian access. It runs beneath an enclosed pedestrian bridge that does not provide sufficient vertical clearance for trucks to pass beneath it. Portions of the taxiway to the north and south are used by delivery and service vehicles for truck parking/staging and access to three loading areas on the block. The Theater at MSG has a separate loading entrance, located at the southern end of the MSG Complex’s Eighth Avenue frontage, which is accessible from West 31<sup>st</sup> Street via the open area at the southwest corner of the block.

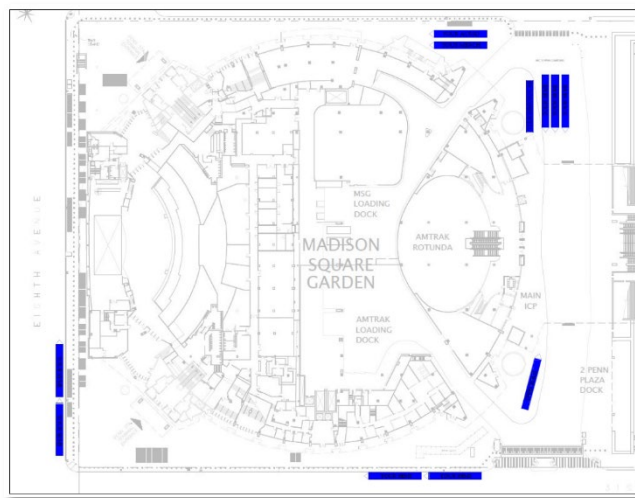
According to the Loading Plan submitted by the Applicant, 4-6 semi-trailers can be accommodated in an open area in and around the taxiway, and events that require more trucks need to rely on public right of way for staging and loading operations. Between 2017 and 2019, there were an average of 235 scheduled events per year at the arena: 38 percent were concerts (averaging 9-10 semi-trailers per event), 48 percent were sporting events (averaging 4-6 semi-trailers per event), and 14 percent were special events (averaging 9-10 semi-trailers per event). Over the course of



these same three years, there were approximately 370 days with concerts or special events where loading requirements exceeded those that could be handled by the outdoor taxiway area. Load-in operations typically start by 8:00AM and load-out operations typically start around 10:00PM.

The Applicant notes that addressing these physical constraints would be prohibitively complex. Accordingly, the Loading Plan does not propose to provide internal loading capacity sufficient to meet its operational needs. Instead, the Loading Plan would continue to utilize the City’s streets, with loading for large concerts relying on highly coordinated use of streets for truck staging and loading/unloading, under permits issued by the Mayor’s Office of Film, Theatre and Broadcasting.

MSG claims that this does not result in significant impacts to vehicular or pedestrian traffic. See **Figure 10**, from MSG’s Loading Plan as submitted to the City Planning Commission. Note that this figure illustrates the loading capacity provided for in the current configuration and includes the regular use of public space impacting pedestrian access at the taxiway, Eighth Avenue/West 31<sup>st</sup> Street, and Eighth Avenue/West 33<sup>rd</sup> Street entrances to the Station.



**Figure 5.9 – MSG Loading Plan**

The reality is that the existing loading plan, which regularly requires on-street staging or staging in open areas and movement of trucks around the Station block, interferes with pedestrian access to the transit facilities, interrupts the flow of pedestrian traffic in the pedestrian circulation network, and interferes with the efficient functioning of adjacent streets. Truck staging on and around Eighth Avenue and 31<sup>st</sup> Street blocks sightlines and pathways to Station entrances from neighboring streets and Moynihan, impeding wayfinding, navigation, and access to Station entrances and taxi stands located along Eighth Avenue and 31<sup>st</sup> Street. It can also create dangerous conditions for pedestrians, particularly those with luggage, who may find themselves needing to navigate around trucks as they cross the street and approach the Station. The Loading Plan is also incompatible with planned future improvements to Penn Station. In particular, it is incompatible with the Railroads’ plan to incorporate the area of the former taxiway into Penn Station, a central component of the Railroads’ plan to transform Penn Station.

The Applicant has included in its submitted Loading Plan discussion of Theater loading operations, which are conducted on the southeast Eighth Avenue plaza at 31<sup>st</sup> Street. The Applicant notes that forklifts from the Arena’s loading area cannot internally access the Theater without “significant building renovations,” requiring the Applicant to rely on public streets and

pedestrian circulation areas for its business operations. In order to complete loading activities, the Applicant describes that 1-2 trucks at a time back up on to the Eighth Avenue corner plaza from 31<sup>st</sup> Street to unload in front of both the Station entrance and Tower B Arena entrance. The Applicant notes that there were 30-40 events per year at the Theater between 2017 through 2019 that involved truck loading activities, with an average of 3-4 trucks utilized and approximately 10 instances per year where 5 or more trucks were utilized.

As with Arena loading activities, the Theater loading activities described interfere with pedestrian access to the transit facilities, interrupt the flow of pedestrian traffic in the pedestrian circulation network, and interfere with the efficient functioning of adjacent streets. Trucks maneuvering on to and stationed on the corner plaza block sightlines to the Station entrance and signage, interfere with pedestrian pathways and access to the Station entrance both from across Eighth Avenue and from 31<sup>st</sup> Street, and impede pedestrian pathways down 31<sup>st</sup> Street from Eighth Avenue towards the accessible Station entrances. The Applicant in its Loading Plan acknowledges that pedestrians along the sidewalks on Eighth Avenue, 31<sup>st</sup> Street, and at the Station entrance are stopped at times while loading activities are underway, but proposes no changes to their current operation.

## 5.7 Structural Compatibility

To implement the required changes within the Station, MSG columns and structural framing at various locations would need to be removed, replaced, or modified. This includes columns and framing that would interfere with new stairs, escalators, or elevators to the platforms, widening the concourses, and creation of the Mid-Block Train Hall. The Railroads also view as a priority working with MSG to address persistent water infiltration issues, whereby water has permeated street-level pavement outside of the Station's property envelope and entered the Station, causing damage to Station ceilings, floors, and other infrastructure, and at times even rendering operational areas unusable. Other infrastructure changes, like the relocation of MSG's Con Edison vault from its current location within the Station, are also required.

## 6 SUMMARY

There are numerous points of interface between Penn Station and MSG, both physical and functional. The conflict between MSG's arena use as currently configured and the existing transit use creates overcrowding and substandard conditions in and around the Station.

MSG's general site plan and loading process may have been compatible with that of Penn Station and the surrounding community in the 1960s. Today, however, MSG's existing configuration and property boundaries impose severe constraints on the Station that impede the safe and efficient movement of passengers and restrict efforts to implement improvements. In order to make the two site uses compatible, MSG must agree to collaborate on property swaps involving MSG's transfer of property interests at the former mid-block taxiway and along Eighth Avenue, MSG's contributions to the cost of improvements proportionate to their benefit to MSG, and MSG's approval of required construction work interfacing with MSG property. Such an agreement would ensure Madison Square Garden's compatibility with both the existing station and with proposed transit improvements that would be advanced through Penn Reconstruction.

The table below summarizes those points of intersection, the Railroads' proposed approach via the Penn Reconstruction Project, and the collaboration that is required for Madison Square Garden to be compatible with those proposed improvements.

**Table 6.1 – Compatibility Assessment Summary**

Railroad’s Proposed Improvement	Project Goals Served	Required Collaboration from MSG
<ul style="list-style-type: none"> <li>Construct a glass-enclosed atrium on the site of the former taxiway with new entrances on 33<sup>rd</sup> and 31<sup>st</sup> Streets</li> </ul>	<ul style="list-style-type: none"> <li>Improve safety and relieve overcrowding by providing more space for pedestrian circulation, more efficient evacuations during an emergency, and improved ventilation and exhaust during a smoke condition</li> <li>Accommodate current and future increases in passenger volumes</li> <li>Improve Station customer experience, including intuitive navigation and amenities</li> <li>Enhance the visibility of the Station to make it easier to find and better connect it to the broader public realm</li> </ul>	<ul style="list-style-type: none"> <li>Execute a property swap with relevant Amtrak/MSG interests</li> <li>Make a capital contribution for the cost of integration with MSG and its building systems</li> <li>Develop a cost-sharing arrangement for future operations, maintenance, and capital renewal proportional to the relative benefits received by each party</li> </ul>
<ul style="list-style-type: none"> <li>Construct a new below-grade MSG loading facility and VIP access routes, with new extensions of the MSG building to serve as entrances for both</li> </ul>	<ul style="list-style-type: none"> <li>Move MSG loading operations, removing existing impediments to pedestrian access</li> <li>Maintain compatibility between MSG loading and Penn Station improvements</li> </ul>	<ul style="list-style-type: none"> <li>Execute a property swap of relevant Amtrak/MSG interests</li> <li>Take responsibility for the cost of construction, operation, maintenance, and future capital renewal of the MSG loading facilities</li> </ul>
<ul style="list-style-type: none"> <li>Locate new Penn Station and MSG HVAC equipment on the roofs of the new extensions of the MSG building adjacent to the former taxiway and route new ductwork and electrical conduits through MSG to Penn Station</li> </ul>	<ul style="list-style-type: none"> <li>Address substandard HVAC equipment and ventilation</li> <li>Accommodate a code-compliant smoke control and venting system to address fire and life safety issues</li> <li>Improve environmental conditions in the Station and customer comfort</li> </ul>	<ul style="list-style-type: none"> <li>Grant easements for locating Penn Station equipment on the roofs and routing ductwork and electrical conduits through MSG</li> </ul>



Railroad’s Proposed Improvement	Project Goals Served	Required Collaboration from MSG
<ul style="list-style-type: none"> <li>Reconstruct the bridge between Madison Square Garden and PENN 2 to become part of the visual composition of the new east train hall</li> </ul>	<ul style="list-style-type: none"> <li>Improve the customer experience for both Penn Station and MSG by making the bridge part of the visual composition of the train hall</li> </ul>	<ul style="list-style-type: none"> <li>Take responsibility for the cost of construction, operation, maintenance, and future capital renewal of the bridge</li> </ul>
<ul style="list-style-type: none"> <li>Relocate the existing Con Edison vault serving Madison Square Garden, currently in Penn Station space that would be part of the new east atrium, to within MSG space</li> </ul>	<ul style="list-style-type: none"> <li>Maintain compatibility between the MSG site plan and Station improvements</li> </ul>	<ul style="list-style-type: none"> <li>Execute a property swap between relevant Amtrak/MSG interests</li> <li>Take responsibility for the cost of relocation, commissioning, operation, and future capital renewal of the relocated vault</li> </ul>
<ul style="list-style-type: none"> <li>Construct new entrances to both Penn Station and MSG with glass enclosures and skylights in the corner plazas on Eighth Avenue at West 31<sup>st</sup> and West 33<sup>rd</sup> Streets</li> </ul>	<ul style="list-style-type: none"> <li>Accommodate current and future increases in passenger volumes</li> <li>Provide accessible entrances on Eighth Avenue to the Station</li> <li>Provide direct connectivity from the street to both the lower level and the west mezzanine</li> <li>Bring daylight into the west end of the Station</li> <li>Improve Station and MSG customer experience</li> <li>Enhance the visibility of the Station to make it easier to find and better connect it to the broader public realm</li> </ul>	<ul style="list-style-type: none"> <li>Execute a property swap with relevant Amtrak/MSG interests</li> <li>Develop a cost-sharing arrangement construction and future operation, maintenance, and capital renewal proportional to the number of MSG patrons using these entrances</li> </ul>
<ul style="list-style-type: none"> <li>Construct a new architectural treatment for the back wall of the Theatre at Madison Square Garden on Eighth Avenue that integrates with the new Eighth Avenue entrances</li> </ul>	<ul style="list-style-type: none"> <li>Improve the public realm by relieving the long-dead zone on the east side of Eighth Avenue caused by the blank back wall of the Theater</li> <li>Enhance the visibility of the Station to make it easier to find</li> </ul>	<ul style="list-style-type: none"> <li>Take responsibility for 50 percent of the construction costs</li> <li>Take responsibility for the cost of operation, maintenance, and future capital renewal of the architectural treatment</li> </ul>

