20 CONSTRUCTION

20.1 Introduction

Per the 2021 *CEQR Technical Manual*, construction activities, although temporary, can result in significant adverse impacts. Construction duration – a critical measure to determine a project's potential for adverse impacts – is categorized as short-term (less than 24 months) and long-term (24 months or more). For construction activities not related to in-ground disturbance, short-term construction generally does not warrant a detailed construction analysis. However, consideration of several factors – including the location and setting of the project in relation to surrounding uses, and the intensity of construction activities – may indicate that a project's construction activities, even if short-term, warrant analysis in additional CEQR technical areas such as transportation, hazardous materials, historic and cultural resources, noise, and air quality.

As discussed in Chapter 1 of this Environmental Impact Statement (EIS), "Project Description," the Proposed Actions would allow the development of the Proposed Facility – a 3,093,880-gross-square-foot (gsf) facility containing gaming, hotel, event center, retail uses, and garage parking for approximately 4,660 vehicles. The Proposed Facility would rise to a maximum height of 245 feet (at elevation 280 in North American Vertical Datum 88 [NAVD88]). Bally's would also construct a replacement standalone clubhouse for the Golf Course.

In connection with the Proposed Facility, the uninterrupted circular roadway within Ferry Point Park (the "Park") that connects the southbound and northbound Hutchinson River Expressway service roads ("Ring Road") would be widened and improved in coordination with the New York City Department of Transportation (NYCDOT). The existing Park access roadway west of where the Proposed Facility would be located (the "Waterfront Access Roadway") would be improved so that it can also be used to access portions of the Proposed Facility. An easement or similar agreement between Bally's and NYC Parks would allow for joint use of this roadway, and it would continue to serve as access for park users to areas near the waterfront.

The Proposed Facility, replacement golf clubhouse, improved Waterfront Access Roadway and improvements to Ring Road comprise the "Proposed Development." Collectively, the Development Site and the improved Ring Road comprise the "Affected Area."

Constructing the Proposed Development would occur over a 30-month period. Thus, a construction assessment was warranted because the project-generated construction that lasts longer than the CEQR 24-month criteria for long-term construction.

This chapter describes: 1) the City, State, and federal regulations and policies that govern construction; 2) the conceptual construction schedule assumed for analysis; 3) the types of activities likely to occur during construction; 4) the types of construction equipment; and 5) the projected number of workers and truck deliveries. Based on these assumptions, the potential impacts from construction activities are identified and assessed for significant adverse impacts per CEQR criteria. In technical areas where significant adverse impacts are identified, potential measures to mitigate the impacts are discussed in Chapter 22 of this EIS, "Mitigation."

For each of the various technical areas presented below, appropriate construction analysis years were selected to represent reasonable worst-case conditions relevant to that technical area, which could occur at different times for different analyses. For example, the noisiest part of construction may not be at the same time as the heaviest construction traffic.

20.2 Principal Conclusions

With approval of the Proposed Actions, Bally's would demolish the existing golf clubhouse, accessory parking lot, a portion of the practice area, and other landscaped areas to construct the 3,093,880-gsf Proposed Facility and replacement golf clubhouse. In addition, Ring Road would be widened and improved to meet current roadway design standards. Altogether, construction activities would likely occur in one phase over a period of 30 months, with construction of the Proposed Facility and golf clubhouse and improvements to Ring Road running concurrently without gaps.

No significant adverse construction impacts would occur in relation to land use and public policy, socioeconomic conditions, community facilities and services, open space, historic and cultural resources, natural resources, hazardous materials, air quality and neighborhood character; however, construction of the Proposed Actions has the potential to result in significant adverse transportation (traffic) and noise impacts.

Transportation

The peak number of trips generated by construction of the Proposed Development is expected to occur in the seventh quarter of construction (Q7). During this peak quarter, project-generated construction would generate an average of approximately 1,800 workers and 580 truck deliveries per day. Therefore, Q7 was selected to assess the construction transportation conditions in order to identify any potentially significant adverse impacts to traffic, transit, pedestrians, and parking in the study area.

Traffic

Construction of the Proposed Development would generate a maximum of approximately 1,431 and 851 Passenger Car Equivalent (PCE) vehicle trips during the weekday AM (5:00

AM – 6:00 AM) and weekday PM (2:00 PM – 3:00 PM) construction peak hours, respectively. Traffic conditions were evaluated for the weekday AM and weekday PM construction peak hours at nine intersections where the net increase in PCE vehicle trips due to the construction of the Proposed Development would exceed the CEQR threshold for conducting detailed traffic analysis. The capacity analyses indicate that the following five intersection approaches/lane groups in the study area could experience a potentially significant adverse traffic impact in at least one peak hour as a result of construction activities associated with the Proposed Actions:

- The northbound Hutchinson River Parkway Service Road left-turn at Lafayette Avenue during the weekday AM construction peak hour.
- The westbound Lafayette Avenue left-turn at the southbound Hutchinson River Parkway Service Road during the weekday AM and PM construction peak hours.
- The eastbound Bruckner Boulevard right-turn at Brush Avenue during the weekday AM construction peak hour.
- The eastbound Lafayette Avenue approach to the southbound Cross Bronx Expressway Extension during the weekday PM construction peak hour.
- The eastbound Schley Avenue approach to the southbound Hutchinson River Parkway Service Road during the weekday AM construction peak hour.
- The highway network analysis during the construction peak hours, indicates that there is five study area highway segment (out of the 61 segments that were analyzed) that would experience a potentially significant adverse traffic impact, summarized as follows:
- SB Cross Bronx Expressway Approaching I-695 Merge during the weekday construction PM peak hour
- NB Hutchinson River Expressway near Bronx-Whitestone Bridge Metropolitan Transportation Authority (MTA) Building during the weekday construction PM peak hour
- SB Hutchinson River Expressway downstream of Exit 18 during the weekday construction PM peak hour
- SB I-678 Hutchinson River Expressway merge with Ramps from CBE & Bruckner Expressway during the weekday construction PM peak hour
- SB Hutchinson River Expressway between On-ramp and Exit 18 during the weekday construction PM peak hour

The feasibility of the proposed mitigation measures will be further explored by Bally's during construction of the Proposed Development with the implementation of a Construction Traffic Monitoring Plan (CTMP), as discussed in more detail in Chapter 22 of this EIS, "Mitigation."

Transit

Construction of the Proposed Development would generate a maximum of approximately 104 average subway trips and approximately 104 average Citywide Ferry Service (CWFS) trips during the weekday AM and PM construction peak hours. These levels of peak hour subway and CWFS trip generation are not expected to exceed the CEQR threshold for conducting detailed analyses of these respective transit modes. Therefore, the Proposed

Development would not result in potentially significant adverse transit impacts during construction.

Pedestrians

Construction of the Proposed Development would generate a maximum of approximately 104 average pedestrian trips (resulting from the approximately 104 average CWFS trips) during the weekday AM and PM construction peak hours. This level of peak hour pedestrian trip generation is not expected to exceed the CEQR threshold for conducting detailed analyses of pedestrian conditions. Therefore, the Proposed Development would not result in potentially significant adverse pedestrian impacts during construction.

Parking

Construction of the Proposed Development would generate a maximum parking demand of approximately 1,042 spaces during the weekday midday period. This construction-generated demand would be accommodated by a dedicated off-street parking supply provided on the Development Site or in a private lot in the vicinity of the site. Therefore, the Proposed Development would not result in a potential public parking shortfall in the study area during construction.

Construction worker parking is proposed to be located on the Development Site or in an off-site parking facility located within the transportation study area – as defined in Chapter 14 of this EIS, "Transportation." If off-site parking within the transportation study area is not available, between Draft and Final EIS, Bally's will evaluate off-site parking facilities outside the transportation study area may be used for construction workers, who would then be shuttled to the Development Site.

As part of the CTMP, Bally's will identify and analyze potential effects of the off-site parking facilities outside of the transportation study area. Between Draft and Final EIS, Bally's will submit the results of these analyses (transportation, noise, and air quality analyses) to the NYCDOT, NYCDEP, and the Lead Agency for review and approval.

Locations outside of the transportation study area will not be selected by Bally's if the selection of such facilities creates a new significant adverse transportation, noise, or air quality impact.

Air Quality

Detailed air quality modeling was completed to assess whether mobile source emissions during the construction stage would have the potential to result in significant adverse air quality impacts during construction. The dispersion modeling analysis of construction-related air emissions for mobile construction sources determined that the Proposed Actions would not result in significant adverse construction impacts relating to mobile air quality.

Further, measures would be taken to reduce pollutant emissions during construction in accordance with all applicable laws, regulations, and building codes. These include dust suppression measures, idling restriction, and the use of ultra-low-sulfur diesel fuel (ULSD). In addition to the required laws and regulations, an emissions reduction program would be used. With these emission reduction measures, significant adverse construction air quality impacts from stationary sources would not occur.

Noise

Construction-generated noise would have the potential to result in significant adverse construction impacts. Chapter 22 of this EIS, "Mitigation," discusses potential measures to mitigate these potentially significant adverse noise impacts.

Noise increases would not exceed the NYC Noise code limit of 85 dB(A) at any receptor. Construction is projected to increase noise levels highest at the Golf Course, where golfers could experience up to a 12- to 15-dB(A) increase in noise levels under worst-case conditions for up to 10 construction quarters (30 months). However, most work during construction quarters 6 and 8 – the noisiest construction quarters – is in the interior fit-out phase and noise would be significantly reduced by the Proposed Facility's façade since it will be in place before interior fit-out work begins. The façade would likely attenuate noise that is generated within the building by a minimum of 10 dB(A), resulting in significantly less noise (or potentially no increase in the L_{eq} at locations farther from the Development Site) in quarters 6 through 10 (construction months 16 – 30) than analyzed.

The nearest residences – more than 1,000 feet away from the Development Site along Emerson Avenue – are projected to experience an increase in the L_{eq} noise level of up to 5.4 dB(A) during quarters 6 and 8 during worst-case conditions. The L_{eq} noise level is projected to be 66.8 dB(A), a noise level that the *CEQR Technical Manual* classifies as "marginally acceptable" and where attenuation is not required. Interior fit-out is anticipated to begin in quarter 6 (around construction month 18), and the projected noise level does not consider the attenuation that would be provided by the installed façade in quarters 6 through 10. If the attenuation provided by the façade were to be considered, the L_{eq} noise level increase at nearby residences would likely be less than 5.4 dB(A) (and potentially no increase in the L_{eq} noise levels over ambient conditions) from quarter 6 onwards.

Construction during nighttime hours (10:00 PM to 7:00 AM) would be subject to the conditions imposed by the New York City Department of Buildings (DOB) as a condition of an After-Hours Variance. Such conditions would include the implementation of an approved noise mitigation plan. By adhering to the approved noise mitigation plan, nighttime construction-generated noise at nearby sensitive nighttime receptors would be minimized to the extent deemed appropriate by DOB.

The Development Site is near the Golf Course's driving range and holes 1, 9, 10, and 18. Golf Course users would only be exposed to the highest construction-noise levels in areas of the course that are nearest construction activities, notably the teeing area on holes 1 and 10, the green hole on 9, and the fairway on hole 18. The United States Golf Association recommends that a hole take between 13 and 17 minutes, depending on skill level and the par of the hole. Each hole is typically more than 100 yards, and noise levels therefore vary on each hole depending on the location of the golfer and the proximity of noise sources.

Assuming golfers are in each of the teeing area, fairway, and green for about 5 minutes, Golf Course users are projected to be closest to project-generated construction activities for about 25 minutes but could be more or less depending on the skill of the golfer. A duration of 25 minutes represents approximately 8 percent of an estimated 306-minute round of golf. In areas of the Golf Course that are farther away from the Development Site, construction-generated noise would be less.

The effects of construction-generated vehicles using Ring Road to access or egress the Development Site may also result in a potential significant adverse noise impact on portions of the Park. Additional analysis may be conducted between Draft and Final EIS to analyze the effects of construction-generated vehicular noise (including the additional potential increase in noise levels associated with construction on the Development Site) on the Park. Chapter 22 of this EIS, "Mitigation," discusses potential measures to mitigate this potentially significant adverse noise impact.

Other Technical Areas

Construction activities have the potential to affect other technical areas such as land use and public policy, socioeconomics, community facilities and services, open space, historic and cultural resources, natural resources, hazardous materials, neighborhood character, and infrastructure. For the Proposed Development, a preliminary analysis of construction effects was warranted for all technical areas with the exception of water and sewer infrastructure, because construction would not cause a disruption to existing water and sewer infrastructure.

Land Use and Public Policy

Construction of the Proposed Development would not affect existing land uses of the surrounding area. The Proposed Actions would allow a change in land use on public parkland, and portions of the Development Site would be alienated from public parkland and mapped within a C8-4 commercial district. New commercial uses – gaming, eating and drinking establishments, hotel, entertainment, and retail – would be introduced to the Development Site. A new clubhouse would also be developed to enhance service to the Golf Course patrons.

The nearby sensitive receptors include Ferry Point Park (including the Golf Course) and the East River. Residential uses are sited over 1,000 feet from the Development Site.

Construction of the Proposed Development, including staging of building materials, would not occur beyond the Affected Area and would not affect existing land uses of the surrounding area. Construction of the Proposed Development would not alter or change public policies. However, the Proposed Development would further the goals included in the 2015 *Hutchinson River Parkway Transportation Corridor Study* by making privately funded infrastructure and safety improvements to the Ring Road and surrounding roadways. Accordingly, the Proposed Actions do not have the potential to result in a significant adverse construction related impact to land use and public policy, and no further analysis is warranted.

Socioeconomic Conditions

Construction of the Proposed Development would support the local community by providing up to approximately 1,800 construction jobs for over two years. The construction would also indirectly generate jobs such as those related to the manufacturing of construction materials. Throughout construction, workers would be expected to use some of the neighborhood's existing retail and services, such as eating establishments, convenience stores, and retail shops. Thus, construction of the Proposed Development would promote the local economic development. Accordingly, the Proposed Actions do not have the potential to result in a significant adverse construction related impact to socioeconomic conditions, and no further analysis is warranted.

Community Facilities and Services

Construction of the Proposed Development would not affect a community facility or service. The Development Site is not adjacent to a community facility and project-generated construction would not affect nearby community facilities' ability to operate. Additionally, construction of the Proposed Development would not affect access to any community facilities or affect their service areas.

The Proposed Development would result in additional employees and construction workers on-site for a duration of more than two years, which could increase demand for police protection, fire protection, and emergency services. However, Bally's plans to include a construction fence around the construction site and employ a 24-hour guarded gate near the entrance during the 30-month construction period. Guards would provide additional security to the construction site and would contact police and emergency service providers during an emergency. The construction site plan also includes a fire access roadway around the perimeter of the Development Site, which will remain unobstructed throughout the construction period to ensure access and circulation for emergency vehicles.

Finally, the Proposed Development would be designed and constructed in accordance with New York City Fire Code with review and approval by the NYC Fire Department (FDNY). FDNY will also review all fire-related building safety plans for the Proposed Development.

The Proposed Development would also not affect any nearby community facilities ability to operate. Thus, the construction effects on community facilities and services would not result in a significant adverse impact.

Open Space

The Proposed Actions would result in a direct effect to Ferry Point Park (the "Park") through minor changes to the existing Golf Course. During the winter season prior to the start of full construction (December to March when the Golf Course is closed to the public), reconfiguration of small areas of holes 1, 9, 10, and 18 would be implemented to allow play to continue during construction. New practice areas would be developed on the Golf Course and artificial lighting and additional fans would be added to portions of select holes and the driving range, as needed, to promote vegetative growth. If required, changes to seed mixes and shade-tolerant plantings would be installed during the winter season.

During construction of the Proposed Facility and replacement golf clubhouse, the maintenance building parking lot north of the Development Site – in the northwest corner of the Golf Course – would provide parking for employees and potentially for visitors. One or more double wide trailers would be sited near the maintenance facility as a temporary clubhouse to serve visitors with concessions, a check-in area, and bathrooms. Visitors would have access to public parking spaces in the Park, and Bally's may arrange for additional off-site parking within the Bronx; Shuttle services would provide visitors with continued access to the Golf Course throughout the construction period.

During construction, visitors would have continued access to the Golf Course (except when closed during winter) and other publicly-accessible areas of Ferry Point Park. During construction, Ring Road would maintain at least one open lane at all times to ensure traffic circulation in the area.

Thus, visitors would have continued access to the Golf Course and would be provided similar amenities at alternate temporary locations without any effect on game play while the Proposed Development is under construction. Construction would not impede visitors from accessing the site or Ferry Point Park via Ring Road. Therefore, the construction effects on open space resources would not result in a significant adverse construction related impact.

Historic and Cultural Resources

As described in Chapter 7 of the EIS, "Historic and Cultural Resources," project-generated construction would not result in the physical alteration or disturbance of a historic architectural or archaeological resource because there are no historic resources on or adjacent to the Development Site. The New York State Office of Parks, Recreation & Historic Preservation (SHPO)'s Cultural Resource Information System (CRIS) shows no historic or cultural resources within 400 feet of the Affected Area. In a letter dated 24 September 2024, SHPO confirmed that there are no historic properties or historic resources on the Development Site (see Appendix B).

As indicated in correspondence from the New York City Landmarks Preservation Commission (LPC) dated 02 April 2024, the Affected Area has no architectural or archeological significance (see Appendix B).

Therefore, the Proposed Actions would not result in significant adverse construction related impacts to historic and cultural resources.

Natural Resources

As described in Chapter 9 of this EIS, "Natural Resources," the Affected Area is fully developed and largely impervious. Based on the findings of on-site field surveys, the Development Site is unlikely to serve large populations of terrestrial wildlife, and no threatened or endangered species are mapped across the Affected Area per the New York State Department of Environmental Conservation (NYSDEC). During the interior fit-out stage, newly planted native and non-invasive vegetation would be planted throughout the Development Site, offering new potential habitat for wildlife.

The existing freshwater wetland – located south of Ring Road and west of the Hutchinson River Expressway – would not be disturbed during construction, and all construction activities related to Ring Road would take place with appropriate soil erosion and sediment control measures in place to minimize the migration of sediments into the existing wetland. All project-generated stormwater would be conveyed through existing stormwater outfalls and would not require in-water work. Therefore, the construction effects on natural resources would not result in a significant adverse impact.

Hazardous Materials

The Development Site is within the footprint of a former municipal solid waste landfill that was closed in 1970. Engineering and institutional controls on the site provide regulatory oversight that preclude the potential for significant adverse hazardous materials impacts.

Ground-intrusive activities necessary to develop the Proposed Facility would be conducted pursuant to a Change of Use Work Plan approved by NYSDEC, and environmental oversight and monitoring would be conducted under the supervision of a licensed engineer. The licensed engineer would oversee the screening of excavated material, observe imported materials, and implement both a community air monitoring

plan and the Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would address temporary (construction-related) stormwater management measures (as required by the State Pollutant Discharge Elimination System (SPDES) General Construction Permit required for the Proposed Development). Additionally, if required, a Construction Health and Safety Plan (CHASP) would be implemented for construction of the Proposed Development and reviewed and approved by NYSDEC prior to construction.

With construction activities occurring pursuant to a NYSDEC-approved construction work plan, the Proposed Actions would not result in significant adverse impacts related to hazardous materials.

Neighborhood Character

Project-generated construction would not significantly affect neighborhood character. The Development Site is within a public park and would be developed within the footprint of an existing surface parking lot, golf clubhouse, a portion of the Golf Course practice area, and other landscaped areas – accessory uses to the Golf Course. The Development Site is over 1,000 feet from the residences in the Throggs Neck neighborhood and over 400 feet from the East River to create a separation between the Proposed Facility and these sensitive uses. Project-generated construction air emissions would not exceed CEQR impact criteria with the proposed construction measures outlined in the relevant subsections below. However, construction-generated noise would have the potential to result in a significant adverse construction noise impact. Public access would continue to be available to the East River parking lot and the Golf Course throughout the construction period from the Waterfront Access Roadway, which runs along the western boundary of the Development Site. Additionally, project-generated construction would continue to allow through traffic on Ring Road, and would not narrow or close travel lanes on the Hutchinson River Expressway or any key through streets north of the Development Site. Therefore, the construction effects on neighborhood character would not result in a significant adverse impact.

20.3 Methodology

This construction assessment follows the guidelines of the *CEQR Technical Manual* and the Final Scope of Work for this EIS. In the With-Action Condition, Bally's would construct the Proposed Facility and replacement golf clubhouse and make improvements to Ring Road. Construction is expected to commence in 2027 and would occur in one phase. Assuming some concurrent construction of the facility and roadway improvements, and a total of 30 months of construction, the Proposed Development would be complete and fully occupied in 2030 (the "Build Year").

Construction would involve the simultaneous construction of multiple buildings and improvements to a park roadway, lasting for over two years. Therefore, an assessment of construction was warranted to determine whether construction activities have the potential to result in significant adverse impacts, as defined in the *CEQR Technical Manual*. This chapter examines the potential construction-related effects in several subareas. A preliminary assessment is provided for the subareas of land use and public policy, socioeconomic conditions, community facilities and services, open space, historic and cultural resources, natural resources, hazardous materials, and neighborhood character. A detailed assessment was required for transportation, air quality, and noise because construction would last more than two years and would be sited near sensitive receptors.

20.4 General Construction Oversight and Practices

Regulatory Agencies and Oversight

Compliance with New York City construction regulations is required regardless of the length of the construction period. In addition to the regulatory requirements, applicants must coordinate with New York City, New York State, and occasionally federal agencies to ensure that effects of construction are reasonably minimized.

New York City Air Pollution Control Code

All projects, whether or not subject to the requirements of CEQR, are required to comply with the New York City Air Pollution Control Code, which regulates fugitive dust under Section 1402.2-9.11, "Preventing Particulate Matter from Becoming Air-Borne; Spraying of Asbestos Prohibited; Spraying of Insulating Material and Demolition Regulated" (Title 24 of the Administrative Code of the City of New York, Chapter 1, Subchapter 6, Section 24-146).

New York City Asbestos Control Program

The purpose of the New York City Asbestos Control Program is to protect public health and the environment by minimizing the emission of asbestos fibers into the air when buildings or structures with asbestos-containing material are renovated, altered, repaired, or demolished by ensuring that asbestos-containing material is handled appropriately and by individuals qualified to do so. The program includes specific procedures that must be followed to control the handling of asbestos during construction. In instances where demolition of an existing building could result in the release of asbestos, the applicable rules and regulations must be followed.

Required Permits from the New York City Department of Transportation's Office of Construction Mitigation and Coordination

Before permits can be issued by NYCDOT for general construction activity, sidewalk construction, canopy permits, traffic, bicycle detour, and pedestrian access plans must be approved by the NYCDOT Office of Construction Mitigation and Coordination (OCMC). Among other matters, the OCMC-approved pedestrian access plans must identify the extent that sidewalks or crosswalks would be closed or narrowed to allow for construction-related activity and describe how pedestrian access to adjacent land uses and intersections will be maintained.

New York City Noise Control Code

The New York City Noise Control Code, as amended by Local Law 113 of 2005, defines "unreasonable and prohibited noise standards and decibel levels" for the City of New York. Section 24-219 of the code contains rules that prescribe "noise mitigation strategies, methods, procedures, and technology that shall be used at construction sites" when certain construction devices or activities occur. Additionally, the New York City Noise Control Code requires construction activities to occur between 7:00 AM and 6:00 PM Monday through Friday. Construction activities occurring outside the permitted timeframe requires an After-Hours Variance from DOB.

New York City Procedure for the Avoidance of Damage to Historic Structures

Regulations for the protection of historic structures are found in "Technical Policy and Procedure Notice (TPPN) #10/88, Procedures for the Avoidance of Damage to Historic Structures Resulting from Adjacent Construction When Subject to Controlled Inspection by Section 27-724 and for Any Existing Structure Designated by the Commissioner," issued by DOB. No State or National Register-eligible resources are within 90 feet of Development Site or Ring Road. If a historic resource is identified within 90 feet of the project-generated construction, construction would be required to comply with the regulations set forth in TPPN #10/88.

General Construction Practices

Hours of Work

Construction activities will adhere to New York City laws and regulations, which generally permit construction work to begin at 7:00 AM and limit overall construction noise levels to 85 dB(A) (L_{max}) on weekdays. Workers generally arrive between 5:00 AM and 6:00 AM to conduct pre-construction activities.

The Development Site and Ring Road are adjacent to the Park, whose peak usage is during daylight hours on weekends during the summer. The Development Site is also over 1,000 feet from the nearest residence.

Construction is projected to occur Monday through Saturday in up to three shifts. Bally's intends to apply for an after-hours work authorization to allow multiple construction shifts, and to enable construction to occur outside of the peak usage times of the Park; however, for a conservative analysis only one shift of construction is analyzed in this EIS. With one shift of construction, this construction assessment analyzes a worst-case condition of all projected workers arriving at the Development Site during the one shift and all construction equipment, and vehicles producing the worst-case noise and air emissions at all times. In practice, the number of workers on – or traveling to or from – the Development Site would be less than analyzed.

The New York City Noise Control Code limits construction-related noise levels to 85 dB(A) (L_{max}) weekdays between the hours of 7:00 AM and 6:00 PM and sets noise limits for specific pieces of construction equipment. As noted above, Bally's intends to apply for an afterhours variance to perform construction after 6:00 PM on weekdays and potentially on Saturdays.

Occasionally, Sunday, or overtime hours may be required to complete time-sensitive tasks.[1] A permit from DOB and approval of a noise mitigation plan from the NYC Department of Environmental Protection (NYCDEP) is required for weekend or off-hours work. Construction activities occurring after hours may be permitted only to accommodate: (i) emergency conditions; (ii) public safety; (iii) construction projects by or on behalf of city agencies; (iv) construction activities with minimal noise impacts; and (v) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts, and/or financial considerations.

[1] While the Proposed Development would likely occur over three weekday construction shifts, one weekend construction shift was assumed for a worst-case analysis.

Deliveries and Access

The Development Site would be fenced off by an eight-foot-tall construction fence that would also serve as a noise barrier. Access would be limited to construction-related activities. Both workers and trucks that are not needed on the construction site would be denied entry. Additionally, aside from the required workers on site, both security guards and flaggers would be posted near the construction entrance to the Development Site from Ring Road. Access to the waterfront parking lot that is south of the Development Site would generally remain open to the public via the Waterfront Access Roadway, except for closures on an-as needed basis for certain construction activities and as approved by the New York City Department of Parks and Recreation (NYC Parks) and OCMC. Private security guards would secure the Development Site 24/7 to deter unauthorized access. Access points to construction areas would be locked and closed after hours. Dedicated flaggers would be assigned to specific work areas during deliveries and debris removal, as needed.

Material deliveries to the construction site would be controlled and scheduled, with both workers and trucks required to pass through security points. Flaggers would be posted at entry gates to assist delivery schedules and provide traffic aid when trucks enter and exit the on-street traffic streams.

Rodent Control

Construction contracts may include provisions for a rodent control program. Before the start of construction, the contractor would survey and bait the appropriate areas and provide for proper site sanitation as necessary. During construction, the contractor would carry out a maintenance program as necessary and in coordination with appropriate public agencies. Signage on the baiting areas would be posted to protect the community. Only Environmental Protection Agency (EPA) and NYSDEC registered rodenticides would be permitted. A rodent control program would be required to be implemented in a manner that is not hazardous to the general public, domestic animals, and non-target wildlife.

20.5 Construction Logistics

Development Site

Approval of the Proposed Actions would allow the Proposed Facility, an approximately 3,093,880-gsf mixed use facility containing a casino with up to 5,146 gaming positions, restaurants, a 500-key hotel and spa, retail space, a 2,000-seat event center, and parking for approximately 4,660 vehicles. Bally's would also construct a replacement standalone clubhouse for the Golf Course to the north of the Proposed Facility. Supplemental improvements would improve circulation near the Development Site. Ring Road would be designed and constructed in coordination with the NYCDOT, NYC Parks, NYCDEP, and MTA (including New York City Transit [NYCT] and Bridges and Tunnels [TBTA]).

Development Site History

The NYC Department of Sanitation (DSNY) operated a municipal solid waste landfill on a portion of the Park to the east of the Whitestone Bridge from 1952 to the mid-1960s. The Development Site is within the footprint of the former landfill.

In the late 1990s, NYC Parks entered into a license agreement with Ferry Point Partners, LLC (FPP) to develop, construct, and operate a new public golf course, community park, waterfront park, and related facilities. In 1999, an environmental assessment statement (EAS) (CEQR No. 99DPR006X) was prepared by Allee King Rosen & Fleming, Inc. to evaluate the former landfill for development as a public recreational facility. The EAS was completed pursuant to City Environmental Quality Review (CEQR), and in conformance with the State Environmental Quality Review Act (SEQRA) in support of an application by NYC Parks for major concession and to demap two unbuilt and undeveloped streets – Emerson Avenue between Miles and Schley avenues, and Schley Avenue between Buttrick and Emerson avenues. The major concession was also subject to the City's Uniform Land Use Review Procedure (ULURP).

In relation to hazardous materials, the 1999 EAS prepared by Allee King Rosen & Fleming, Inc. reported that:

- Soil borings and soil and gas sampling showed results consistent with a municipal landfill;
- Test programs indicated high methane concentrations at some locations at a depth of two- to three-feet below the surface of the landfill; however, negligible concentrations were found at the surface;
- Waste test materials indicated SVOCs, PCBs, arsenic, and lead above risk-based criteria.
- Soil cover test results indicated that SVOCs and arsenic exceeded risk-based criteria at a limited number of locations.

The development of the Golf Course incorporated measures to minimize exposure pathways for both methane and soil contaminants:

- A health and safety plan;
- A landfill gas interception and venting system was installed to reduce the potential for landfill gas accumulation. There are currently four confirmed passive vent wells within the bounds of the Development Site and two areas of assumed collection piping in the western and southern parts of the site;
- A 12- to 24-inch-thick final cover of topsoil comprising nonhazardous regulated soil materials was imported to the site to cover contaminants in the soil and waste materials; however, in the rough waste (out-of-bounds) areas of the Golf Course, a minimum of six inches of material was placed or retained;
- A monitoring well network to monitor groundwater quality across the former landfill, including one confirmed well within the southern part of the Development Site; and
- A commitment was made to dispose of waste materials excavated during construction in compliance with all applicable rules and regulations.

On July 17, 2000, NYSDEC issued the Part 360 Permit jointly to FPP and NYC Parks to allow the import and placement of a total of 1,000,000 cubic yards (CY) of nonhazardous regulated fill necessary to construct the Golf Course. NYCRR Part 360 required that a Post Construction Custodial Care Plan (PCCCP) be established to set post-construction and monitoring requirements associated with the former landfill use and the construction of the Golf Course. Several modifications to the Part 360 Permit were to allow additional

nonhazardous regulated fill and changes in design features. In total, approximately 2,370,000 CY of nonhazardous regulated fill was approved for import to cap the former landfill area with a soil cover of varying thickness. The cover system in the proposed area of development consists of a topmost layer (including vegetation, asphalt, and other ground cover), followed by 12 to 24 inches of barrier protection material, a demarcation barrier in select areas, and shaping material above the landfill material.

During construction of the Golf Course and clubhouse, solid waste was generated throughout the site development and excavation phases. Solid waste material was not used as fill material on-site after it was encountered, except for the solid waste excavated and reused on-site and in accordance with an Order on Consent issued by NYSDEC as of January 4, 2004 (Order on Consent No. R2-20030724-187). Per the Part 360 Permit, municipal solid waste at the Development Site was transported and secured into segregated stockpile locations prior to off-site disposal. Municipal solid waste material consisted of metal, glass, tires, plastics, rubber, paper, fabrics, and miscellaneous debris. Prior to stockpiling excavated solid waste, the existing ground surface was covered with an impermeable plastic membrane. The stockpile was then encircled with silt fence and covered with an impermeable plastic that was secured with sandbags prior to off-site disposal.

In 2007, NYC Parks terminated the license agreement with FPP and took over development responsibilities of the waterfront park and the Golf Course.

In 2015, the 18-hole Golf Course was completed over the former landfill. A Declaration of Covenants and Restrictions recorded in December 2015 requires, among other things, that written authorization be obtained from NYSDEC for a change of use other than for the current use. Beginning in 2015, Trump Ferry Point, LLC operated the Golf Course.

In September 2023, the concession to operate the Golf Course was transferred to Bally's. NYC Parks remains responsible for inspection monitoring, reporting, and oversight of operations and maintenance of the Park while operating infrastructure and monitoring within the Development Site will become the responsibility of Bally's.

Monitoring

A PCCCP was established in 2013 to comply with the requirements of 6 NYCRR Part 360 and to define the post construction criteria applicable to the operation, monitoring and maintenance of the environmental protection systems installed in the former landfill. As construction activities were still on-going at the time of initial 2013 submission, relevant changes and additions associated with final construction were incorporated into an amended operations plan. As part of this addendum, NYC Parks was required to submit post construction documentation such as a SWPPP, maintenance documentation per a SPDES general permit, and documentation of installation of the sub-slab depressurization system in the clubhouse building.

Based on the as-built drawings of the Golf Course and the 2023 Semi-Annual Post Closure Certification Report, the following environmental systems and/or monitoring are ongoing within the Development Site:

- Quarterly monitoring of the final cover system and biannual infrastructure inspections;
- Semi-annual inspections of the asphalt pavement of the Clubhouse parking lot;

- Monthly piezometer monitoring;
- The sub-slab depressurization system beneath the current Golf Course clubhouse is being monitored on a quarterly basis;
- Groundwater monitoring wells are currently being sampled on a biennial basis;
- Landfill gas (LFG) monitoring wells and passive vents are being monitored on a quarterly l basis;
- One settlement plate is present within the Development Site; however, as of June 15, 2023, NYSDEC approved the termination of future settlement plate monitoring, as long as the former landfill continues to be used and maintained as a golf course;
- Four unconfirmed LFG passive vent wells and two unconfirmed LFG collection pipes were identified in the Development Site; however, these do not appear to be part of the ongoing monitoring program and it is unknown if these have been closed.

As-built drawings that show existing infrastructure within the Development Site are included in Appendix G.

Per the *2023 Semi-Annual Post Closure Certification Report* – the latest available post closure report available – environmental systems and monitoring are ongoing at the Golf Course. In relation to the Development Site, the most recent reporting indicates that:

- the cover system remains in good condition with some areas that required reseeding and clearing of washout along cart paths;
- the asphalt surface of the parking lot continues to function as a suitable landfill cover system, providing an exposure barrier between the public and subsurface materials. Observed cracks are surficial and do not penetrate through the full asphalt cap; and
- groundwater within the bounds of the Development Site contains VOCs, metals, and cyanide above NYSDEC Ambient Water Quality Standards. Detections of VOCs and metals during groundwater sampling in 2023 are generally consistent in location and concentration with previous sampling events. The presence of cyanide in groundwater is generally consistent with other previous post-closure monitoring events, however, exceedances of the Ambient Water Quality Standards were only reported during the 2023 sampling event at two sampling locations.

Nearby Sensitive Receptors

The Proposed Development – the cumulative construction of the Proposed Facility, golf clubhouse, and improvements to Ring Road – would overlap in concurrent phases for a total of approximately 30 months which would result in a cumulative construction duration that would be classified as "long-term" per CEQR.

On the Development Site, the Proposed Facility and golf clubhouse would not open to the public until construction activities are complete, therefore there would be no potential for significant adverse construction impacts from project-generated construction on project-generated receptors. The nearest existing sensitive receptors to the Development Site are summarized in Table 20-1.

Table 20-1: Nearest Sensitive Receptors by Direction for the Development Site

Direction	Nearest Sensitive Receptor	Approx. Distance from Nearest Proposed Receptor	Description
North	Bally's Golf Links at Ferry Point Park (the "Golf Course")	< 25 feet	A 222-acre public golf course with an 18-hole golf course. Construction would occur near the southernmost tee area of hole 1 and the green of hole 9.
	Ferry Point Park	< 5 feet	A 413.8-acre park containing barbecuing areas, basketball courts, cricket fields, football fields, dog-friendly areas, handball courts, playgrounds, public restrooms, soccer fields, and Wi-Fi Hot Spots.
West	Freshwater Wetland	300 feet	A freshwater wetland dominated by common reed southwest of Ring Road (less than five feet) and across the Hutchinson River Expressway from the Development Site.
South	Ferry Point Park	< 5 feet	A 413.8-acre park containing barbecuing areas, basketball courts, cricket fields, football fields, dog-friendly areas, handball courts, playgrounds, public restrooms, soccer fields, and Wi-Fi Hot Spots.
	East River[2]	> 350 feet	A navigable tidal strait linking Upper New York Bay with the Long Island Sound.
East	Bally's Golf Links at Ferry Point Park (the "Golf Course")	< 5 feet	A 222-acre public golf course with an 18-hole golf course. Construction would occur near the rough "out-of-bounds" area of hole 18.

1. The Hutchinson River Expressway Service Road is a roadway and is not considered a sensitive receptor for CEQR analyses.
2. The East River is a natural resource and is not considered a sensitive receptor for CEQR air quality and noise analyses.

Figure 20-1: Nearest Sensitive Receptors Aerial Map



The construction area for the Proposed Facility and replacement golf clubhouse would be located adjacent to Bally's Golf Links (the "Golf Course") to the north, east, and south. Construction activities would be located at least 45 feet from users on hole 1 and at least 25 feet from users on hole 9. The Golf Course is generally open March through November.

Construction of the Proposed Facility and golf clubhouse would be at least 500 feet from active recreational uses within the Park west of the expressway, and would be separated by the Hutchinson River Expressway, the TBTA inaccessible areas, portions of a wetland and additional heavily vegetated areas west of the expressway. Additionally, all construction activity would take place over 1,000 feet from residential uses, the closest of which are east of the Development Site and along Emerson Avenue.

Construction would occur at least 350 feet from the edge of the East River. Project-generated construction would adhere to best construction practices and applicable laws and regulations, including any conditions required by the US Army Corps of Engineers (USACE), NYSDEC, or NYCDEP. A SPDES general permit would be required for construction and Bally's would develop a SWPPP to address temporary (construction-related) stormwater management measures. The SWPPP would define the required temporary (construction) and permanent erosion control measures to minimize erosion and stabilize surfaces (i.e., vegetative covers, pavement, gravel, etc.). The goal of a SWPPP is to protect the quality of the City's waterways by preventing erosion and sedimentation during construction. The SWPPP would also require a monitoring program during construction to document the construction's consistency with the NYSDEC-approved SWPPP.

Primary Construction Stages

General Construction Practices

Staging Areas

Staging, receiving, and other secondary construction activities would occur on the northwest corner of the Development Site. Staging would be within the area currently used as the Golf Course's surface parking lot and golfers would be provided parking in other locations or would be provided a shuttle from an alternative location to the Golf Course. This staging area would be available throughout the duration of the construction period.

Access for construction vehicles would be from Ring Road, and flaggers and a 24-hour gate guard would allow access from the street. Vehicles would access the Development Site from Ring Road. Access to all sides of the proposed buildings would be maintained throughout construction and around the site perimeter (once operational, this area would be developed as an emergency roadway for the FDNY).

The Waterfront Access Roadway along the western boundary of the site connects to a public parking lot (the "East River parking lot") within Ferry Point Park. Access to the East River parking lot for Park visitors would remain unobstructed throughout construction. The construction fence – which would act as a noise barrier – would be sited at least 50 feet from the East River parking lot, which provides park visitors with access to the walking paths near the East River waterfront.

Within the site, the staging area would provide space to maneuver equipment and materials for efficient construction operations. An eight-foot construction fence made of

wood or other suitable material that would surround the Development Site in accordance with DOB requirements.

Sidewalk Lanes and Traffic Closures

There are no public sidewalks or bike paths near the Development Site or along Ring Road, and no closures to sidewalks or bike paths will be required for the Proposed Development. Certain portions of Ring Road will be closed at times to improve Ring Road, such as to install below-grade drainage systems or utilities, or to widen the roadbed; however, at least one lane is anticipated to remain open throughout the construction period to maintain traffic circulation in the area. If construction requires that a portion of Ring Road be closed to vehicular traffic, the closure will be coordinated with OCMC, NYC Parks, and TBTA to develop temporary adjustments to traffic patterns.

Other traffic or bicycle lanes would not be narrowed or closed during the construction period. NYCDOT's OCMC will review and approve all Maintenance and Protection of Traffic (MPT) plans, which will identify any planned sidewalk or parking lane closures, as well as staging areas for all construction activities. The MPT plans will be prepared and submitted for OCMC review and approval at a later stage of development once detailed logistics plans are developed for each construction site. Additionally, coordination with NYCDOT would be necessary to determine the appropriate measures to ensure pedestrian safety surrounding the construction site, including any potential deployment of Traffic Enforcement Agents (TEAs), if needed.

Bally's would coordinate with the MTA and TBTA to ensure access is available to their facilities near the construction site throughout all construction periods.

Demolition, Excavation, and Foundation

Demolition would occur during months one and two of construction (quarter one). The golf clubhouse building would be inspected for hazardous, toxic or flammable material and if identified, would be removed and disposed of prior to general demolition. Existing utility connections to the golf clubhouse would be cut and capped, and the golf clubhouse would then be demolished in accordance with applicable regulations.

Following demolition, the excavation and foundation phase of construction would begin during month 3 and last until month 6 (the second quarter of construction). The equipment used during this stage would remain on the Development Site to be redeployed in support of the stage's activities throughout the construction duration. Following excavation and foundation of the Proposed Facility, the excavation and foundation phase would begin for the replacement golf clubhouse and last until month 10.

During this phase of construction, activities would be limited to on-the-ground or below-grade, and the Hutchinson River Expressway, change in topography, and existing vegetation to the east would minimize the available direct sightlines between the construction area and surrounding sensitive receptors to the east and west, thereby limiting the typical construction noise effects.

Installing piles would breach the landfill cap and require excavating material below the cap. Per the Change of Use Work Plan, a licensed engineer would oversee the screening of excavated material, observe imported materials, and implement both a community air monitoring plan and SWPPP. Excavated material would be characterized prior to

excavation and would be disposed in accordance with applicable local, state, and federal regulations at an approved permitted disposal facility.

Both buildings would be supported by deep foundations, bypassing the loose historic fill (landfill) and very soft clay, and bearing in suitable material (dense sand and/or bedrock) about 80 to 120 feet below ground surface. Plausible deep foundation options potentially include:

- drilled displacement piles in which soils are displaced laterally as the drill rig tooling is advanced to suitable bearing material;
- drilled piles, in which steel casing is advanced to bedrock and the pile is then socketed into the bedrock; or
- steel or precast concrete piles driven to the suitable bearing material.

Piling would breach the landfill cover system, including possible pre-drilling through the historic fill stratum underlying the barrier protection material (BPM). Pre-drilling methods would be conducted using water to mitigate dust creation, and with methods to mitigate the amount of material removed at each pile location. These options were selected to minimize the amount of spoil (excavated material) because the Development Site is part of a closed landfill. The anticipated pile options would laterally displace material, to the extent possible, so that it remains below-grade and minimizes the disposal of hazardous materials.

Once the piles or caissons are installed, the pile caps and other foundation element would be constructed.

Equipment used during demolition, excavation, and foundation would include auger drills, backhoes, pile drivers, bar benders, compactors, compressors, concrete saws, cranes, dozers, excavators, front end loaders, generators, gradalls, graders, jackhammers, a mounted impact hammer, scrapers, vacuum excavator, vacuum street sweepers, ventilation fans, warning horns, and pneumatic tools.

During this construction stage, construction vehicles would include dump trucks, flatbed trucks, drill rig trucks, water trucks, and concrete mix and pump trucks. These trucks would assist the excavation and foundation process through the removal of excavated materials and demolition materials. If landfill materials are excavated, they would be handled and transported in accordance with applicable regulations.

If required, dewatering would be performed in accordance with the SPDES general permit. Water collected in the excavation area during construction would be removed as necessary using a dewatering pump. If excavations require dewatering, dewatered fluids would not be recharged back to the land surface or subsurface. Dewatering fluids would be managed off-site. Disposal of dewatering effluent would be performed in accordance with all applicable local and federal regulations.

Figure 20-2, below, shows the proposed construction site plan for both the excavation and foundation phases of construction.

Figure 20-2: Excavation and Foundation Construction Phase Illustrative Site Plan

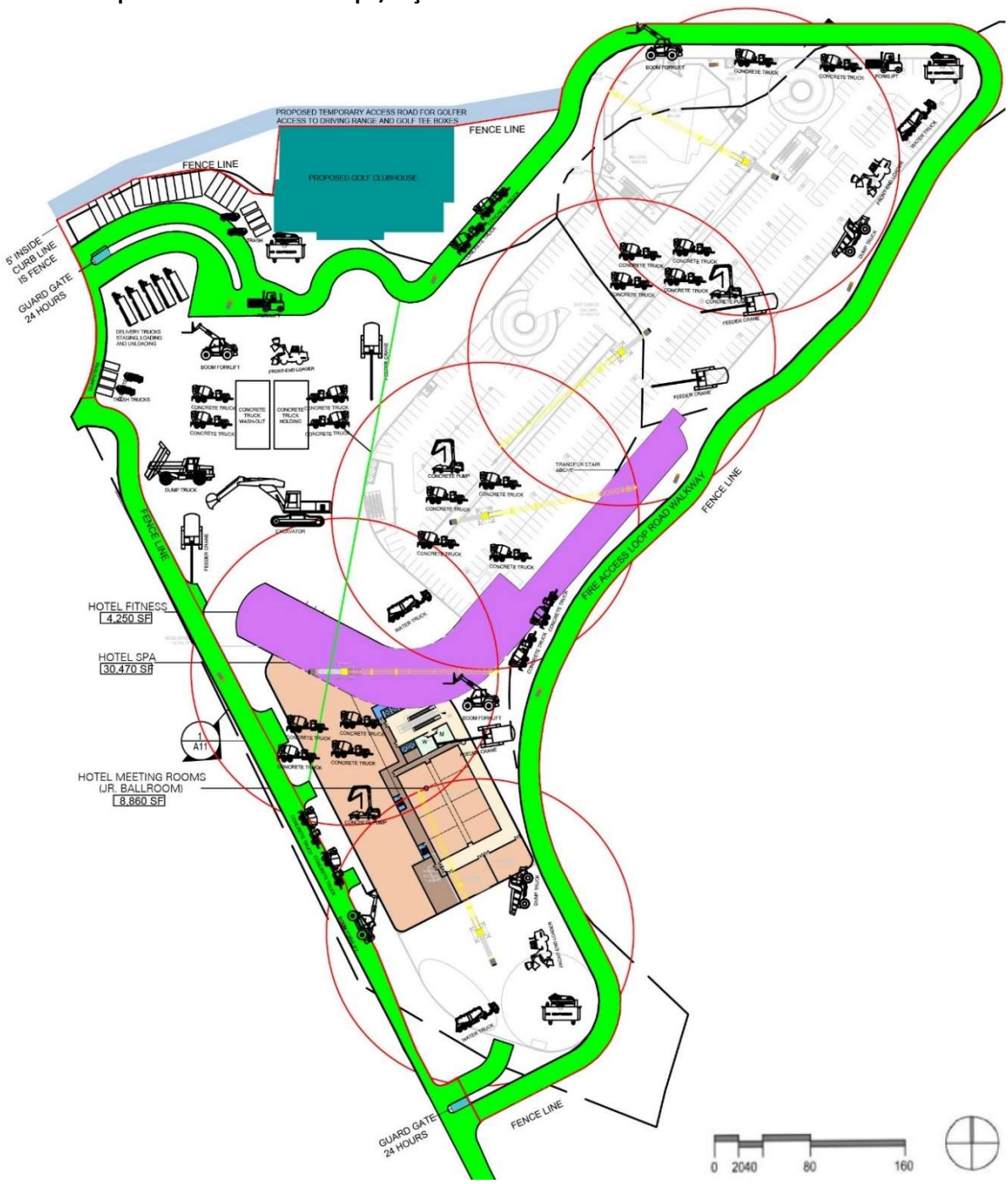


Source: Caspers Henderson Services LLC

Superstructure

The superstructure phase of construction would begin during month 7 of construction and last until month 11 for the Proposed Facility. Following the superstructure phase of the Proposed Facility, the envelope and façade phase of construction would begin during month 12 and last until month 16. Figure 20-3, below, shows the proposed construction site plan for both the superstructure and envelope/façade phases of construction.

Figure 20-3: Superstructure and Envelope/Façade Construction Phase Illustrative Site Plan



Source: Caspers Henderson Services LLC

The superstructure of a building includes the building's framework such as beams, slabs, and columns. Construction of the building's interior structure, or core, would include elevator shafts, vertical risers for mechanical, electrical and plumbing systems, electrical and mechanical rooms, core stairs, and restroom areas. Up to five tower cranes (and one feeder crane) would be used during the superstructure stage to lift structural components, façade elements, and other large materials.

Superstructure construction activities would typically also require the use of backhoes, bar benders, compacter equipment, compressors, concrete saws, excavators, front end loaders, generators, gradalls, graders, jackhammers, man lifts, a mounted impact hammer, pumps, refrigerator unit, rivet buster, vacuum street sweepers, ventilation fans, warning horns, and pneumatic tools.

During this construction stage, construction vehicles would include a tractor, dump trucks, flatbed trucks, water trucks, and concrete mix and pump trucks. These trucks would assist the superstructure phase by moving materials and pouring concrete.

Depending on the stage of construction, truck movements would generally begin around 6:00 AM. No rerouting of traffic is anticipated during construction activities and all moving lanes on streets, except for when construction will occur on Ring Road, are expected to be available to traffic at all times. Traffic and bicycle lanes would not be narrowed or closed during any point of construction.

Envelope and Façade

The superstructure stage is projected to end during month 11 of construction and the building envelope and façade phase is projected to begin during month 12 and continue through month 16. Following the envelope and façade phase for the Proposed Facility, the envelope and façade phase of construction for the replacement golf clubhouse would begin during month 17 and last until month 21.

During this stage, the exterior façade would be installed. Prefabricated façade elements would arrive on trucks. These elements would be lifted into place by a tower crane or similar piece of equipment so that the element can be attached to the superstructure. Envelope and façade construction activities would typically require backhoes, bar benders, compacter equipment, compressors, concrete saws, tower cranes, feeder crane, excavators, front end loaders, generators, jackhammers, man lifts, pumps, refrigerator units, vacuum street sweepers, ventilation fans, warning horns, welder torches and pneumatic tools.

During this construction stage, construction vehicles would include dump trucks, flatbed trucks, water trucks, and concrete mix and pump trucks. These trucks would assist the envelope and façade phase through the movement of materials and the pouring of concrete.

During the envelope and façade phase of construction for the replacement golf clubhouse, improvements to Ring Road would also begin; however, no rerouting of traffic is expected and one lane along Ring Road would remain available at all times.

Interior Fit-Out

The interior fit-out phase is projected to begin during month 16 of construction and last until month 25. Following the interior fit-out phase for the Proposed Facility, interior fit-

out for the replacement golf clubhouse would begin during month 25 and last until month 29.

This final stage of construction would include the construction of interior partitions, installation of lighting fixtures, interior finishes (such as flooring, painting, cabinetry, etc.), and mechanical and electrical work, such as the installation of elevators and lobby finishes. Final cleanup, building system (e.g., electrical system, fire alarm, plumbing, etc.) testing, and inspections would also be part of this stage of construction.

Landscaping activities would be completed in the final phase of construction as part of the interior fit-out stage. Fit-out for the Proposed Facility and replacement golf clubhouse would largely be performed with handheld tools, smaller machinery, and manual labor. However, the majority of earthwork and site grading for the landscaping improvements would occur during demolition, excavation, and foundation.

Equipment used during interiors and finishing would generally include man lifts and dumpsters, as well as a variety of small hand-held tools. Interior fit-out activities would mostly be limited to the interior of the building. The Proposed Facility's façade would provide noise attenuation, significantly limiting the amount of noise generated on the surrounding receptors. Interior fit-out activities generally would not require the use of diesel machinery and would generate significantly less heavy-duty diesel vehicle trips to the construction site than the excavation and superstructure phases. The use of heavy machinery would also be minimal during this construction stage, thereby limiting the noise and air effects on the surroundings.

Commissioning Close-Out

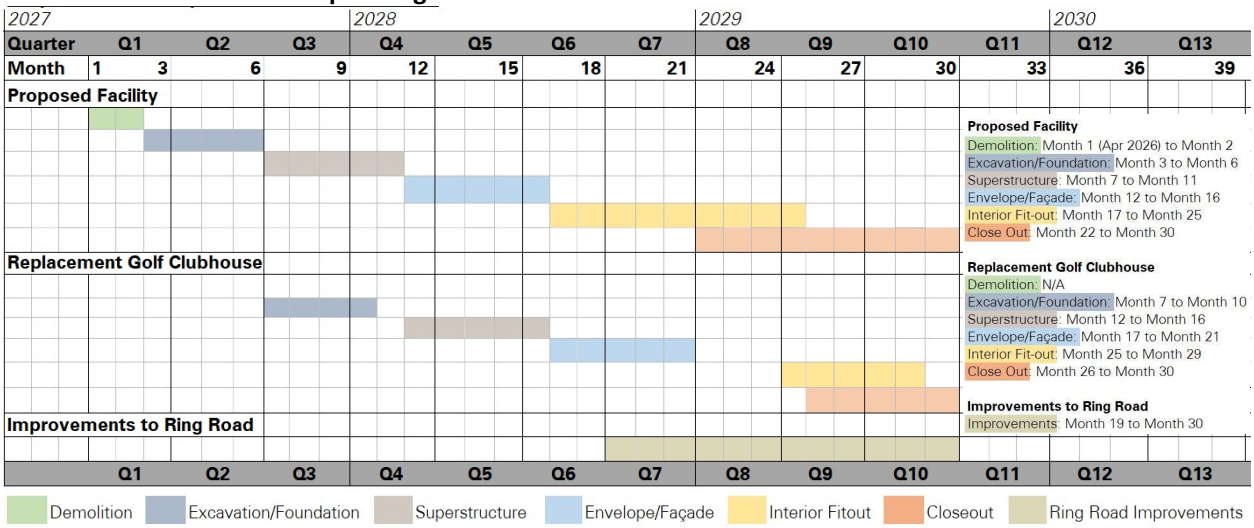
Commissioning and close-out activities for the Proposed Facility would being during month 22 of construction until the final month of construction (month 30). For the replacement golf clubhouse, commissioning and close-out activities would begin during month 26 and last until the final month of construction.

Commissioning and close-out activities would typically include minor improvements to the interior of the buildings and installing landscaping to the site as well as starting and testing of mechanical systems. Any partial reconfiguration of the Golf Course, changes to plantings, or addition of fans and artificial light as shadow mitigation may be included at this time.

Construction Sequencing and Staging

Bally's has engaged Caspers Henderson Services LLC to provide input on the construction logistics and anticipated schedule. The construction schedule is presented below in Table 20-2 and reflects Bally's schedule of construction activities at the site. Construction activities for the Proposed Facility and replacement golf clubhouse would occur in one phase. Altogether, construction activities are projected to occur over a period of 30 months, with construction of the Proposed Facility running concurrently without gaps and all project activities completed in month 30. Construction on the Development Site would be classified as long-term per CEQR because the construction duration would exceed 24 months.

Table 20-2: Construction Sequencing Schedule



Source: Caspers Henderson Services LLC

Construction Workers and Shifts

The number of daily workers is projected to vary throughout construction. During the first quarter of construction, an average of approximately 200 daily workers are anticipated to be on-site. Throughout the anticipated 30-month construction schedule, the average number of workers on-site is anticipated to be about 900 workers. During the peak construction quarter – estimated to be quarter 7 – construction is projected to generate up to 1,800 daily workers.

Bally's anticipates employing at least two construction shifts per day, with up to three shifts during peak construction. For the morning shift – Shift 1 – workers would be expected to arrive at the construction site by 6:00 AM to prepare for construction work. The preparations would include site safety talks, discussion of the work to be completed in the upcoming shift, the assignment of roles, and readying construction tools. Construction is not anticipated to begin until 7:00 AM.[2] In Shift 1, construction activities would typically occur until around 2:30 PM, and workers would typically depart the construction area between 2:00 and 3:00 PM. Approximately 63 percent of daily workers are anticipated to work during Shift 1 in construction quarter 7, the peak construction quarter.

Workers in Shift 2 would be expected to arrive between 3:00 and 4:00 PM for preconstruction activities, and construction would typically begin around 4:00 PM. Construction activities are expected to typically occur until up to 12:30 AM.[3] Approximately 21 percent of daily workers are anticipated to work in Shift 2 during the peak construction quarter.

[2] While construction is not anticipated to begin until 7:00 AM on a typical construction day, certain circumstances – such as to ameliorate immediate safety concerns or work that cannot occur during normal construction hours – may require work before 7 AM; if required, construction work before 7:00 AM would require a variance from the New York City Department of Buildings, who may impose conditions as part of an approved variance.

[3] Bally's anticipates requesting an "After-Hours Variance" from the New York City Department of Buildings to allow construction activities after 6 PM.

Shift 3 is not anticipated throughout the entire 30-month duration of construction and only activities that support construction – such as site cleanup and accepting deliveries – are anticipated in this shift. Workers in Shift 3 would be expected to arrive before the shift starts at 2:00 AM. The shift would end as needed, but the shift may extend to around 10:30 AM to accommodate morning deliveries. Approximately 16 percent of daily workers are anticipated to work in Shift 3 during the peak construction quarter.

Improvements to Ring Road

Ring Road is currently parkland and operates as a park roadway. Ring Road would be alienated by the State Legislature so that it can be mapped as a City Street on the City Map. Ownership of Ring Road would be transferred from NYC Parks to NYCDOT.

Ring Road would be widened to allow the capacity to accommodate vehicles, bicycles, and pedestrians accessing the Park and Proposed Facility. These improvements are projected to begin during month 19 of construction, during the interior fit-out phase of the Proposed Facility and the envelope/façade phase of the replacement golf clubhouse. Improvements to Ring Road would conclude during month 30.

Machinery used to construction Ring Road would move along the approximately 0.8 miles that comprise the proposed City Street and would not operate in one location for the entire approximately 12-month duration.

Replacement Parkland and Park Improvements

Park improvements and replacement parkland would also be provided consistent with the requirements of the State alienation legislation. Bally's would contribute funds to the City of New York to be devoted to NYC Parks for such public improvements (or perform the improvements at NYC Parks' direction) and would deed the designated new parkland to NYC Parks.

20.6 Preliminary Assessment

Land Use and Public Policy

The Proposed Actions would allow the development of the Proposed Facility, an approximately 3,093,880-gsf gaming facility containing up to 5,146 gaming positions, restaurants, a 500-key hotel with a spa and meeting space, retail space, a 2,000-person event center, and parking for approximately 4,660 vehicles. Bally's would also construct a replacement standalone golf clubhouse for the Golf Course. Ring Road would be widened and constructed in coordination with NYCDOT, NYC Parks, NYCDEP and MTA.

The Proposed Actions would allow the existing uses on the Development Site to be temporarily displaced by construction activities for a duration of approximately 30 months. After construction is finished, new commercial uses – gaming, eating and drinking establishments, hotel, entertainment, and retail – would be introduced to the Development Site, and a replacement golf clubhouse would enhance service to the Golf Course patrons. These new commercial uses are expected to generate significant economic activity and tax revenue for both the City and State and have been designed to complement the Golf Course and the Park. To support the Proposed Facility,

improvements would also be made to Ring Road to manage stormwater and to support safety for pedestrians, cyclists, and vehicles.

The nearby sensitive receptors, as shown previously in Figure 20-1, include Ferry Point Park, including the Golf Course, the East River, and a freshwater wetland west of the expressway. Construction would occur over 1,000 feet from residential uses to the east and 350 feet from the East River.

Construction of the Proposed Development, including staging of building materials, would not occur beyond the Affected Area and would not affect existing land uses of the surrounding area; thus, the Proposed Actions would not result in significant adverse construction impacts to land use.

Construction of the Proposed Development would not alter or change public policies. The Proposed Development would not conflict with citywide public policies and would further the recommendations of the 2015 *Hutchinson River Parkway Transportation Corridor Study* by making privately funded infrastructure and safety improvements to Ring Road.

Accordingly, the Proposed Actions do not have the potential to result in a significant adverse construction related impact in the area of land use and public policy, and no further analysis is warranted.

Socioeconomic Conditions

Construction of the Proposed Development would support the local community by providing construction jobs. The Bureau of Labor Statistics indicates that construction workers in New York earn an average of approximately $63,830 annually[4] - higher than the median household income of the Study Area ($51,734)[5]. Construction of the Proposed Development would provide up to approximately 1,800 well-paying construction jobs to the community. The construction would also indirectly generate jobs such as those related to the manufacturing of construction materials. Throughout construction, construction workers would be expected to use the neighborhood's existing retail shops and services, such as eating establishments and convenience retail. Thus, construction of the Proposed Development would promote the local economic development.

Accordingly, the Proposed Actions do not have the potential to result in a significant adverse construction related impact in the area of socioeconomic conditions, and no further analysis is warranted.

Community Facilities and Services

The Proposed Actions would not directly eliminate, displace, or alter public or publicly funded community facilities, and as a result do not warrant an analysis of direct effects on community facilities. Further, there are no community facilities adjacent to or in the vicinity of the Development Site and there is no potential for the construction activities to affect operations or access to a community facility.

The Proposed Development would result in additional employees and construction workers on-site for a duration of more than two years, which could increase demand for police protection, fire protection, and emergency services. However, Bally's would employ

[4] https://www.bls.gov/oes/current/oes472061.htm
[5] U.S. Census Bureau, 2018-2022 ACS 5-Year Estimates (NYC Planning Population FactFinder)

a 24-hour on-site private security presence during construction. Additionally, Ring Road would be improved and would provide enhanced access to the Development Site. During construction, one lane of Ring Road would be maintained at all times to not impede access or egress from the Park or the Development Site.

The Proposed Development would be designed and constructed in accordance with New York City Fire Code with review and approval by the FDNY. FDNY will also review all fire-related building safety plans for the Proposed Development and Ring Road.

Accordingly, the Proposed Actions do not have the potential to result in a significant adverse construction related impact in the area of community facilities and services, and no further analysis is warranted.

Open Space

The Proposed Actions would result in a direct effect to the Park through minor changes to the existing Golf Course. During the winter season prior to the start of full construction (December to March when the Golf Course is closed to the public), reconfiguration of small areas of holes 1, 9, 10, and 18 would be implemented to allow play to continue during full construction. New practice areas would be developed on the Golf Course, and mitigation measures such as artificial lighting and additional fans may also be added near the tee area of the driving range to mitigate potential shadow from the Proposed Development. If required, changes to seed mixes and shade-tolerant plantings would be installed. Partial reconfiguration of select holes would be reviewed and approved by Nicklaus Design and NYC Parks prior to any changes to the Golf Course.

Construction would displace the existing Golf Course parking lot. During construction, replacement parking would temporarily be provided in the northwest of the Golf Couse. One or more double wide trailers would be sited near the maintenance facility as a temporary clubhouse to serve visitors with concessions, a check-in area, and bathrooms. Golfers would continue to have access to the concessions and restrooms between holes 5 and 14, near the easternmost portion of the Golf Course. Visitors would have access to public parking spaces in the Park, and Bally's may arrange for additional off-site parking within the Bronx; shuttle services would provide visitors and employees with continued access to the Golf Course throughout the construction period.

Throughout construction, users would have continued access to the Golf Course and other publicly-accessible areas of the Park beyond the Affected Area. During construction, at least one travel lane in Ring Road is projected to remain open at all times, allowing park users to egress the Park. Thus, users would have continued access to the Golf Course and golfers would be provided similar amenities at alternate locations while the Proposed Development is under construction. Additionally, measures would be used to control air emissions, dust, noise, and vibration on the construction site to avoid significant adverse effects to golfers or Park users. Golfers nearest the construction site may experience an increase in air and noise emissions due to construction; however, these would not rise to the level of a significant adverse air quality impact. As discussed below, the construction of the Proposed Development could result in significant adverse construction noise impacts; however, measures to mitigate these impacts are discussed in Chapter 22 of the EIS, "Mitigation."

Thus, the direct effects to the Golf Course would not result in significant adverse construction related impacts in the area of open space resources, and no further analysis is warranted.

Historic and Cultural Resources

The Proposed Actions would not result in a significant adverse impact to historic and cultural resources. As indicated in correspondence from LPC dated 02 April 2024, the Affected Area has no architectural significance. SHPO's CRIS shows no historic or cultural resources within 400 feet of the Affected Area. In a letter dated 24 September 2024, SHPO confirmed that there are no historic properties or historic resources on the Development Site.

Accordingly, the Proposed Actions do not have the potential to result in a significant adverse construction related impact in the area of historic and cultural resources, and no further analysis is warranted.

Natural Resources

As described in Chapter 9 of this EIS, "Natural Resources," the Development Site is fully developed and largely impervious. While the Proposed Development would have a direct effect on small areas of the manicured vegetation and landscaping within the Golf Course, the vast majority of the Golf Course and existing vegetated parkland within the Park would remain undisturbed by the Proposed Development. With the widening of Ring Road, existing vegetation – largely grasses – along the exterior of the roadway within Ferry Point Park would be removed to accommodate the wider street and pedestrian and cycling infrastructure. The improved roadway would include two travel lanes and a parking lane that could accommodate a future MTA bus stop. Part of the Ring Road improvements would include a five-foot vegetative buffer between a new pedestrian sidewalk and two-way bike lane. Measures to protect vegetation, such as sediment control and soil erosion methods, would be required during construction. Thus, the Proposed Actions would not result in a significant adverse impact to vegetative species.

Based on the findings of on-site field surveys, the Affected Area is unlikely to serve large populations of terrestrial wildlife. No state- or federal-listed threatened or endangered bird species, or U.S. Fish and Wildlife Service-listed Birds of Conservation Concern were observed onsite during field surveys. Additionally, the Affected Area is unlikely to be an active roosting habitat for bats. Further, new native and non-invasive vegetation would be planted on the Development Site, offering new potential habitat for wildlife in the surrounding area. Thus, the Proposed Actions are unlikely to result in a significant adverse impact to wildlife, including rare or protected species.

A SPDES general permit would be required for construction. As required by this permit, Bally's would develop a SWPPP to address temporary (construction-related) stormwater management measures. The SWPPP would define the required temporary and permanent erosion control measures to minimize erosion and stabilize surfaces (i.e., vegetative covers, pavement, gravel, etc.). The SWPPP would also require a monitoring program during construction to document the construction's consistency with the NYSDEC-approved SWPPP. Additionally, common measures to protect the freshwater wetland south of the Ring Road would include the placement of a silt fence around the limit of disturbance, and inlet protection for both soil erosion and sediment control measures.

Thus, the Proposed Actions are unlikely to result in a significant adverse impact to wetlands and surface waters.

Therefore, the Proposed Actions are unlikely to result in a significant adverse construction related impact in the area of natural resources, and no further analysis is warranted.

Hazardous Materials

As described in Chapter 10 of this EIS, "Hazardous Materials," the Development Site is within the footprint of a former municipal solid waste landfill. In 2000, NYSDEC issued Part 360 Permit No. 2-6006-00014 (the "Part 360 Permit") to allow the import and placement of nonhazardous, regulated fill to construct the Golf Course. In 2013, NYC Parks prepared a Post Construction Custodial Care Plan (PCCCP) to comply with the requirements of the Part 360 Permit and to define the post-construction criteria applicable to operate, monitor, and maintain the environmental protection systems installed at the former landfill. Environmental systems are in place and monitoring are ongoing at the Golf Course. In addition, a Declaration of Covenants and Restrictions was recorded against the former landfill property that requires written authorization from NYSDEC for a change of use other than for the project described in the Part 360 Permit (i.e. a park and golf course).

Ground-intrusive activities necessary to build the Proposed Facility and replacement golf clubhouse would be conducted pursuant to a Change of Use Work Plan approved by NYSDEC, and environmental oversight and monitoring would be conducted under the supervision of a New York licensed engineer. Per the Change of Use Work Plan, the NY licensed engineer would oversee the screening of excavated material, observe imported materials, and implement a community air monitoring plan (CAMP). CAMP would be conducted in compliance with the New York State Department of Health (NYSDOH) and NYSDEC guidelines. Exceedances observed in the CAMP would be reported to NYSDEC and NYSDOH Project Managers and included in a daily report. The CAMP will include real-time monitoring for volatile organic compounds (VOCs) and particulates at the downwind perimeter of each designated work area when ground-intrusive work is in progress. If VOCs exceed applicable State levels, work would be halted, the source of vapors identified, corrective actions would be taken to abate emissions, construction would then resume and monitoring would continue.

As previously mentioned, a SWPPP would be required during construction and would be monitored by a New York licensed engineer. The SWPPP would define the required temporary and permanent erosion control measures to minimize erosion and stabilize surfaces and include a monitoring program to document the construction's consistency with the NYSDEC-approved SWPPP. Additionally, if required, a CHASP would be implemented for construction of the Proposed Development and reviewed and approved by NYSDEC prior to construction.

Excavation would require a breach of the landfill cover system, including possible pre-drilling through the historic fill stratum underlying the BPM. Pre-drilling methods would be conducted using water to mitigate dust creation, and methods to mitigate the amount of material removed at each pile location would be used.

With construction activities occurring pursuant to a NYSDEC-approved Change of Use Work Plan including oversight by a NYSDOH and NYSDEC, the Proposed Actions would not result in significant adverse construction related impacts related to hazardous materials and no further analysis is warranted.

Neighborhood Character

Construction of the Proposed Development would not significantly affect neighborhood character. The Development Site is within a public park and would be developed within the footprint of the existing accessory surface parking lot, existing golf clubhouse, landscaping, and a portion of the practice area. Construction would take place over 1,000 feet from the residences in the Throggs Neck neighborhood and over 350 feet from the East River. The Golf Course and existing street network provide a sizeable buffer between the Affected Area and the surrounding neighborhoods. Construction-generated noise and air emissions would temporarily increase during construction and would be typical of new development in New York City. Project-generated construction air emissions would not exceed CEQR impact criteria with the proposed construction measures outlined in the detailed assessment below. Construction-generated noise would have the potential to result in significant adverse construction noise impacts to the Golf Course and portions of the Park, and measures to mitigate these impacts are described in Chapter 22 of this EIS, "Mitigation."

Public access to the East River parking lot and the Golf Course would continue to be available throughout construction via Ring Road. Construction vehicle access to and from the Development Site would be from Ring Road. Project-generated construction is not expected to close Ring Road, the Hutchinson River Expressway, or any key through streets near the Development Site.

Accordingly, the Proposed Actions do not have the potential to result in significant adverse construction related impacts in the area of neighborhood character, and no further analysis is warranted.

20.7 Detailed Assessment

Per *CEQR Technical Manual* guidelines, a construction assessment evaluates the temporary effects of construction activities on land use and public policy, socioeconomic conditions, community facilities and services, open space, historic and cultural resources, natural resources, hazardous materials, transportation, air quality, noise, and neighborhood character. The cumulative construction period would be approximately 30 months and is therefore considered "long-term" per CEQR. During these 30 months, the Proposed Facility and replacement golf clubhouse would be constructed concurrently, and Ring Road would be improved to meet City street standards.

The preliminary assessment indicated significant adverse construction impacts would not occur in the areas of land use and public policy, socioeconomic conditions, community facilities and services, open space, historic and cultural resources, natural resources, hazardous materials, or neighborhood character. The preliminary screening indicated detailed assessments of construction effects in the areas of: 1) transportation, 2) air quality, and 3) noise are warranted and the results of the detailed assessments are discussed herein.

Transportation

The analysis of construction transportation conditions assesses the potential for significant adverse impacts to traffic, transit, pedestrians, and parking in the study area during construction, as a result of the Proposed Actions. The analysis is based on a study

of peak worker and truck trips on a quarter-by-quarter basis, taking into account worker modal splits, vehicle occupancy and trip distribution, truck PCEs and arrival/departure patterns. An assessment of the worker and truck trips on a quarter-by-quarter basis was conducted based on the projected construction schedule, and the quarter with the highest estimated construction trip generation was selected for analysis.

Construction Trip Generation

The estimated average number of daily workers and truck deliveries for each quarter of construction are shown in Table 20-3. The average number of workers on-site per day would be approximately 905, with the peak reaching an average of approximately 1,800 workers per day in the seventh quarter of construction (Q7). The average number of truck deliveries per day would be approximately 399, with the peak reaching an average of approximately 580 deliveries per day in the seventh quarter of construction (Q7). It should be noted that the number of daily workers and trucks presented in Table 20-3 are inclusive of those associated with the work proposed along Ring Road as part of the Proposed Development, which would be expected to take place primarily in the seventh, eighth, and ninth quarters of construction (Q7, Q8, and Q9).

Table 20-3: Average Number of Daily Workers and Truck Deliveries by Quarter

Quarter	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Peak	Average
Workers	200	400	600	700	800	1000	1800	1400	1100	1050	1800	905
Trucks	200	200	333	533	533	455	580	500	455	200	580	399

Source: Caspers Henderson Services LLC

Peak Daily Worker Trips and Truck Deliveries

The daily worker and truck trip projections in the peak quarter were used as the basis to estimate peak hour construction trips. As shown in Table 20-3, construction of the Proposed Development would generate the highest number of daily trips in Q7, with an average of approximately 1,800 workers and 580 truck deliveries per day.

Construction Worker Modal Split and Vehicle Occupancy

The construction worker modal split was obtained from the *2000 U.S. Census Bureau Reverse Journey-to-Work (RJTW)* data for the construction and excavation industry for Bronx County Census Tract 110, in which the Development Site is located. Modal splits of 85.6 percent by auto, 0.0 percent by taxi, 0.0 percent by bus, 7.2 percent by subway, 7.2 percent by ferry, and 0.0 percent by walk; and an average vehicle occupancy of 1.48 persons per vehicle are expected for construction workers commuting to/from the Development Site. In addition, shuttle service to/from one or more nearby subway stations in the Bronx would be provided for workers who utilize subway service to travel to and from the Development Site; a shuttle occupancy of 20.0 workers per shuttle is expected.

Traffic

Peak Hour Construction Vehicle Trips

Construction activities at the Development Site are anticipated to take place in up to three daily shifts: 6:00 AM to 2:30 PM (Shift 1); 4:00 PM to 12:30 AM (Shift 2); and 2:00 AM to 10:30 AM (Shift 3). The majority of construction activities at the Development Site would occur during Shift 1, with approximately 63 percent of daily workers during Shift 1; 21

percent during Shift 2; and 16 percent during Shift 3. It was conservatively assumed that all daily workers would be on-site during Shift 1.

While construction truck trips would occur throughout the shift and throughout the day (with more trips during the early morning period and at the start of the shift), and most trucks would remain in the area for short durations, construction workers would commute during the hours before and after the work shift. For analysis purposes, each truck delivery was assumed to result in two trips during the same hour (one "in" and one "out"), whereas each worker vehicle was assumed to arrive near the work shift start hour and depart near the work shift end hour. Furthermore, in accordance with the *CEQR Technical Manual*, the traffic analysis assumed that each truck delivery has a PCE of 2.0 and each subway shuttle has a PCE of 1.5.

The estimated daily vehicle trips for Q7 were distributed throughout the workday based on projected work shift allocations and conventional arrival/departure patterns for construction workers and trucks. For construction workers, the majority (approximately 80 percent) of the arrival and departure trips would take place during the hour before and after each work shift, respectively. Construction truck deliveries typically peak during the hour before each shift (25 percent), overlapping with construction worker arrival traffic. The hourly trip projections for the peak construction quarter (Q7) for the Proposed Project are shown in Table 20-4.

Table 20-4: Average Hourly Vehicle Trip Projections during Peak Quarter of Construction (Q7)

	Auto Trips		Truck Trips		Subway Shuttle Trips		Vehicle Trips			PCE Trips		
	In	Out	In	Out	In	Out	In	Out	Total	In	Out	Total
12 AM - 1 AM	-	-	-	-	-	-	-	-	-	-	-	-
1 AM - 2 AM	-	-	-	-	-	-	-	-	-	-	-	-
2 AM - 3 AM	-	-	-	-	-	-	-	-	-	-	-	-
3 AM - 4 AM	-	-	-	-	-	-	-	-	-	-	-	-
4 AM - 5 AM	-	-	-	-	-	-	-	-	-	-	-	-
5 AM - 6 AM	833	-	145	145	6	6	984	151	1,135	1,132	299	1,431
6 AM - 7 AM	208	-	62	62	2	2	272	64	336	335	127	462
7 AM - 8 AM	-	-	62	62	-	-	62	62	124	124	124	248
8 AM - 9 AM	-	-	62	62	-	-	62	62	124	124	124	248
9 AM - 10 AM	-	-	62	62	-	-	62	62	124	124	124	248
10 AM - 11 AM	-	-	62	62	-	-	62	62	124	124	124	248
11 AM - 12 PM	-	-	62	62	-	-	62	62	124	124	124	248
12 PM - 1 PM	-	-	32	32	-	-	32	32	64	64	64	128
1 PM - 2 PM	-	-	31	31	-	-	31	31	62	62	62	124
2 PM - 3 PM	-	833	-	-	6	6	6	839	845	9	842	851
3 PM - 4 PM	-	208	-	-	2	2	2	210	212	3	211	214
4 PM - 5 PM	-	-	-	-	-	-	-	-	-	-	-	-
5 PM - 6 PM	-	-	-	-	-	-	-	-	-	-	-	-
6 PM - 7 PM	-	-	-	-	-	-	-	-	-	-	-	-
7 PM - 8 PM	-	-	-	-	-	-	-	-	-	-	-	-
8 PM - 9 PM	-	-	-	-	-	-	-	-	-	-	-	-
9 PM - 10 PM	-	-	-	-	-	-	-	-	-	-	-	-
10 PM - 11 PM	-	-	-	-	-	-	-	-	-	-	-	-
11 PM - 12 AM	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	1,041	1,041	580	580	16	16	1,637	1,637	3,274	2,225	2,225	4,450

1. Hourly construction worker and truck trips were derived from an estimates quarterly average number of construction workers and truck deliveries per day, with construction workers and truck deliveries each resulting in two daily trips (one "in" and one "out").
2. In and Out volumes may not sum to total due to rounding.

As shown, the construction-generated peak hour vehicle trips would total approximately 1,431 and 851 PCEs in the weekday AM (5:00 AM – 6:00 AM) and weekday PM (2:00 PM – 3:00 PM) construction peak hours, respectively, which would exceed the *CEQR Technical Manual* screening threshold of 50 peak hour vehicle trips during both the weekday AM and PM construction peak hours.

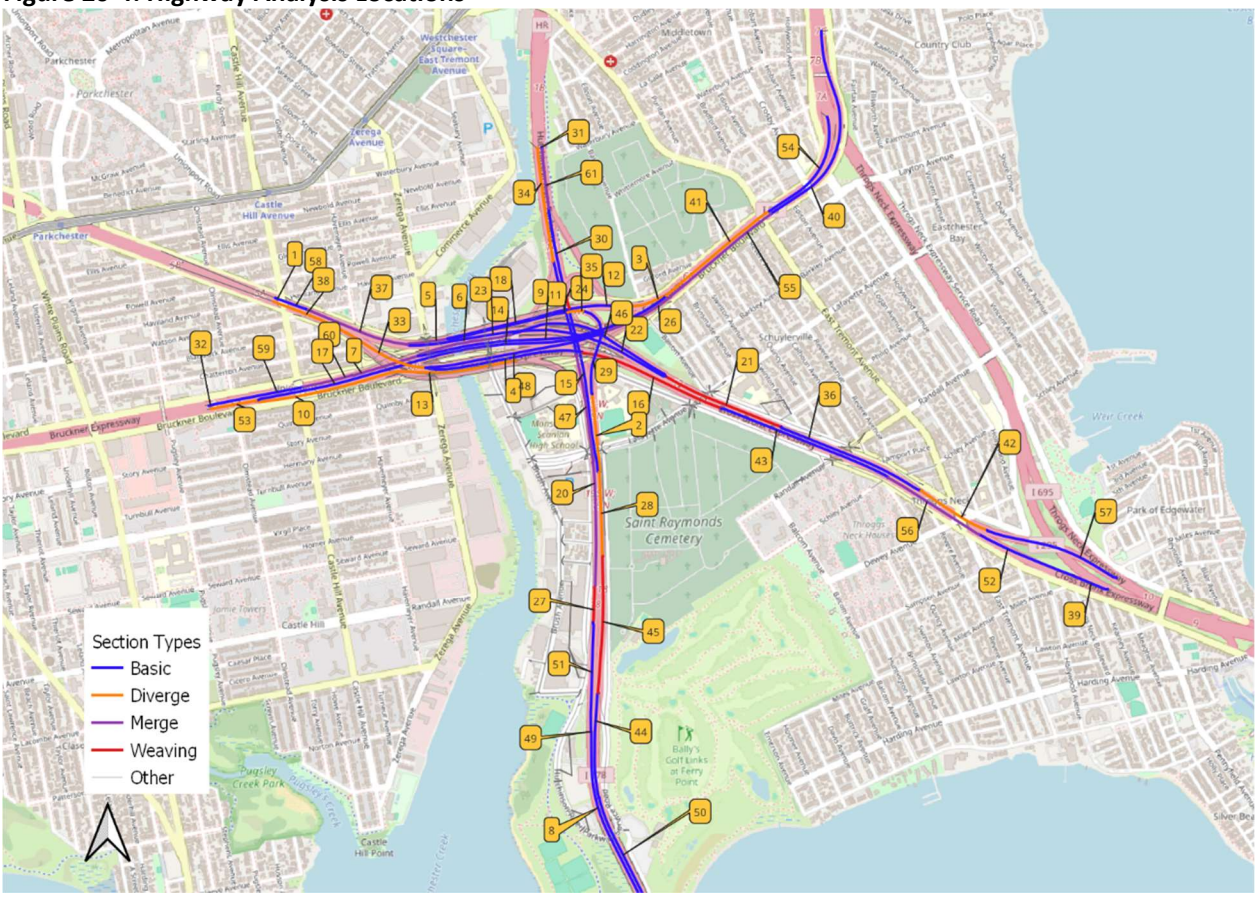
The construction-generated vehicle trips (in PCEs) were assigned to the study area intersections to determine which locations would experience trips exceeding the *CEQR Technical Manual* threshold for conducting detailed traffic analysis. Construction worker auto trips were conservatively assigned to the Bally's Golf Links driveway based on *2012-2016 U.S. Census Bureau RJTW Origin/Destination (O/D)* data. Note that the Applicant is evaluating the possibility of acquiring an off-site parking lot for workers to park their personal vehicles and would provide a shuttle service between the Development Site and off-site parking lot to reduce the potential impact on study area roadways. Conservatively, all construction worker vehicles were assumed to park on the Development Site and were assigned accordingly.

Construction worker subway shuttle trips were assigned to the study area roadways connecting the Development Site driveway with the Westchester Square – Tremont Avenue Station accessible via the MTA/NYCT No. 6 subway line. The construction truck delivery trips were also assigned to the Development Site driveway via NYCDOT-designated truck routes in the area. Using these distribution patterns, the total construction-generated vehicle trips were assigned to the study area intersections for the weekday AM and PM construction peak hours (see Appendix J – Figures J2-13 through J2-16). Based on these assignments, the following nine study area intersections could experience 50 or more peak hour vehicle trips, and were selected for detailed traffic analysis:

1. Ring Road and the Bally's Golf Links Driveway;
2. Northbound (NB) Hutchinson River Parkway Service Road and Lafayette Avenue;
3. Southbound (SB) Hutchinson River Parkway Service Road and Lafayette Avenue;
4. SB Hutchinson River Parkway Service Road and Schley Avenue;
5. NB Cross Bronx Expressway Extension and Randall Avenue;
6. SB Cross Bronx Expressway Extension and Randall Avenue;
7. NB Cross Bronx Expressway Extension and Lafayette Avenue;
8. SB Cross Bronx Expressway Extension and Lafayette Avenue, and;
9. Eastbound (EB) Bruckner Boulevard and Brush Avenue.

The operations of the highway network during construction were analyzed using microscopic traffic simulation models developed through Aimsun. These models analyze the effect of a proposed project on the adjacent ramps, highways segments and complex interchanges. The models provide outputs such as average speed, average density by lane, travel times along select routes, queues and delays. This data can be used to quantify impacts. The model extents are shown in Figure 20-4.

Figure 20-4: Highway Analysis Locations



Existing Condition

The 6:00 AM – 7:00 AM and 3:00 PM – 4:00 PM hours are traditionally the peak hours for construction workers commuting to/from a job site. Based on anticipated shift schedules and construction worker and truck arrival/departure patterns, and as shown in Table 20-4, the 5:00 AM – 6:00 AM hour was identified as the weekday AM peak hour for construction worker and truck trip generation, and the 2:00 PM – 3:00 PM hour was identified as the weekday PM peak hour for construction trip generation. As described above, construction is anticipated to occur in up to three shifts; however, the daily volume of construction workers was assumed to be in one construction shift, thereby representing worst-case conditions. In practice, the construction-generated worker trips would be spread out across the day, resulting in fewer peak-hour trips than analyzed in this assessment.

Since background traffic volumes on study area roadways are typically higher during the 6:00 AM – 7:00 AM hour than the 5:00 AM – 6:00 AM hour, background traffic volumes during 6:00 AM – 7:00 AM were conservatively utilized for the weekday AM construction peak hour analyses. Similarly, since background traffic volumes on study area roadways are typically higher during the 3:00 PM – 4:00 PM hour than the 2:00 PM – 3:00 PM hour, background traffic volumes during the 3:00 PM – 4:00 PM hour were conservatively utilized for the weekday PM construction peak hour analyses. As discussed in further detail in the With-Action Condition section, the 5:00 AM – 6:00 AM and the 2:00 PM – 3:00 PM peak hour construction trip generation volumes were conservatively utilized with

the 6:00 AM – 7:00 AM and 3:00 PM – 4:00 PM background traffic volumes for the weekday AM and PM construction peak hour analyses, respectively.

Existing traffic volumes for the construction study area intersections were established based on Turning Movement Counts (TMC) and Automatic Traffic Recorder (ATR) data collected at the study area intersections as part of the operational traffic analysis (see Chapter 14, "Transportation"). Based on a comparison of the operational weekday AM and PM peak hour traffic volumes (7:30 – 8:30 AM and 4:00 – 5:00 PM, respectively) to the early morning and afternoon traffic levels based on the ATR counts, the 6:00 AM – 7:00 AM weekday morning and 3:00 – 4:00 PM weekday PM construction peak hour volumes were determined for the nine analysis intersections.

1. Study Area Street Network

The Existing Conditions traffic volumes for the weekday AM and PM construction peak hours are shown in Appendix J – Figures J2-1 and J2-2, respectively. The Existing Conditions intersection capacity results – including v/c ratios, delays and LOS for the construction study intersections – are shown in Appendix J – Table J-1.

Of the 38 total intersection approaches/lane groups in the construction study area, three operate worse than LOS D in at least one construction analysis peak hour, namely:

- The westbound Lafayette Avenue left-turn at the southbound Hutchinson River Parkway Service Road (LOS E with an average delay of 56.2 seconds during the weekday PM construction peak hour).
- The westbound Bruckner Boulevard left-turn at Brush Avenue (LOS E with an average delay of 55.3 seconds during the weekday AM construction peak hour and LOS F with an average delay of 91.6 seconds during the weekday PM construction peak hour).
- The southeast-bound Bruckner Boulevard left-turn at Brush Avenue (LOS E with an average delay of 60.9 seconds during the weekday AM construction peak hour and LOS E with an average delay of 58.7 seconds during the weekday PM construction peak hour).

2. Highway Analysis

Traffic simulation models were developed individually for the two construction peak periods (AM and PM). The models were calibrated to ensure the outputs matched the field observations including counts (volumes on segments, intersection turn movements), travel speeds and queue observations. Appendix J presents the model development memorandum detailing the calibration. Tables J-2 and J-4 in Appendix J presents the existing speeds, densities, and LOS for the highway segments analyzed. Table 20-5 presents a summary of the LOS by highway segment type.

The LOS summary of existing conditions indicates that:

- In the Construction AM peak hour, there are 4 out of 61 highway segments analyzed are at LOS E or F.
- In the Construction PM peak hour, there are 7 out of 61 highway segments analyzed are at LOS E or F.

The highway segments with LOS E or F are listed below:

- WB Cross Bronx Expressway, Before Exit 5A (Construction AM)

- SB Hutchinson River Expressway near Bronx-Whitestone Bridge MTA Building (Construction AM and PM)
- NB Cross Bronx Expressway, at Castle Hill Ave (Construction AM)
- WB Bruckner Expressway, at Castle Hill Ave (Construction PM)
- WB Cross Bronx Expressway Merge with I-95 (Construction AM)
- WB Bruckner Expressway Approaching Exit 53 (Construction PM)
- SB Cross Bronx Expressway Approaching I-695 Merge (Construction PM)
- NB Bruckner Exp Approaching I-695 Merge (Construction PM)
- SB Hutchinson River Expressway SB downstream of Exit 18 (Construction PM)
- SB Hutchinson River Expressway, Between On-ramp and Exit 18 (Construction PM)

Table 20-5: Highway LOS Summary

Highway Segment Type	No. of Segments	Level of Service	Construction Peak	
			AM	PM
Basic	33	LOS A-C	26	20
		LOS D	4	7
		LOS E	3	2
		LOS F	0	4
Merge	11	LOS A-C	10	11
		LOS D	0	0
		LOS E	1	0
		LOS F	0	0
Diverge	12	LOS A-C	12	12
		LOS D	0	0
		LOS E	0	0
		LOS F	0	0
Weave	5	LOS A-C	5	4
		LOS D	0	0
		LOS E	0	0
		LOS F	0	1
# Segments	61	LOS E or F	4	7

No-Action Condition

As discussed in Chapter 14 of this EIS, "Transportation," changes to the intersection geometry and traffic signal timings at the intersection of Bruckner Boulevard and Brush Avenue are being implemented by NYCDOT as part of the *Unionport Bridge Replacement Project*. At the direction of NYCDOT, in the No-Action Condition, these geometric and operational changes were incorporated into the capacity analyses at the intersection of Bruckner Boulevard and Brush Avenue.

Additionally, and also independent of the Proposed Development, changes to the travel lane, bicycle lane, and curbside parking configurations on Lafayette Avenue are being implemented by the NYCDOT as part of a bicycle infrastructure improvement project. At the direction of NYCDOT, in the No-Action Condition, changes to the travel lane and curbside parking geometries were incorporated into the capacity analyses at Lafayette Avenue's intersections with Brush Avenue, the southbound Hutchinson River Parkway Service Road, and the southbound Cross Bronx Expressway Service Road. Changes to traffic signal timings at these intersections are not proposed as part of the specified bicycle infrastructure improvement project.

It is assumed that the peak construction quarter resulting from the Proposed Actions (Q7) would occur in 2028. A compounded annual background growth rate of 0.25% for the Bronx was applied to the Existing Conditions traffic volumes for four (4) years (2024 through 2028). In addition to background growth, a review was conducted in consultation with the Lead Agency, the NYC Department of City Planning (DCP), and NYCDOT to identify future No-Build Development Projects planned near the Development Site that could potentially generate vehicle and pedestrian traffic through the study area in the No-Action Condition. Projects of modest size (less than 25,000 total gsf) are not expected to generate significant traffic, and therefore, increases in vehicle and pedestrian volumes in the study area because of these projects would be encompassed by background growth. Based on this review, the following No-Build Development Project meets the above criteria and has been incorporated into the No-Action Condition:

DSNY BX 9/10/11 Garage

DSNY proposes to raze the existing Bronx Community District (CD) 9, CD 10, and CD 11 Garage ("BX 9/10/11 Garage") located at 850 Zerega Avenue. DSNY proposes to construct a new replacement garage to accommodate the existing site operations in the future. During construction of the replacement garage, DSNY will temporarily divert the existing site operations to three temporary swing space locations located in relatively close proximity to the existing garage site. The temporarily diverted DSNY vehicle trips during construction of the replacement garage were incorporated into the No-Action Condition in accordance with the construction-generated diverted vehicle trip assignments published in the latest available Travel Demand Factors (TDF) Memorandum for the proposed BX 9/10/11 Garage project (CEQR No. 22DOS002X; dated April 4, 2024). DSNY proposes to replace the BX 9/10/11 Garage in-kind with no expected substantive change in future operations. Additionally, construction of the proposed BX 9/10/11 Garage replacement is expected to conclude in 2029. As such, the temporary construction-generated diverted vehicle trip assignments for the proposed DSNY project were incorporated into the future 2028 Construction No-Action Condition. However, the BX 9/10/11 Garage project was not incorporated into the future 2030 Operational No-Action Condition as construction of the DSNY replacement garage would be concluded and existing site operations restored before the Proposed Development becomes open and operational in 2030.

The total vehicle trip assignments for the DSNY BX 9/10/11 Garage No-Build Development Project are shown for the weekday AM and PM construction peak hours in Appendix J – Figure J2-7 and J2-8, respectively.

The No-Action Condition traffic volumes were projected by layering the background growth and trip generated by the No-Build Development Project on top of the Existing Conditions traffic volumes. The No-Action Condition traffic volumes for the weekday AM

and PM construction peak hours are shown in Appendix J – Figure J2-9 and J2-10, respectively.

1. Study Area Street Network

The No-Action Condition intersection capacity results – including v/c ratios, delays and LOS for the construction study intersections – are shown in Appendix J – Table J-1.

In summary, of the 36 total intersection approaches/lane groups in the study area, five are projected to operate worse than LOS D in at least one peak hour, namely:

- The westbound Lafayette Avenue left-turn at the southbound Hutchinson River Parkway Service Road (LOS E with an average delay of 60.3 seconds during the weekday PM construction peak hour).
- The eastbound Bruckner Boulevard left-turn at Brush Avenue (LOS E with an average delay of 65.9 seconds during the weekday AM construction peak hour).
- The eastbound Bruckner Boulevard right-turn at Brush Avenue (LOS F with an average delay of 366.3 seconds during the weekday PM construction peak hour).
- The northbound Brush Avenue left-turn at Bruckner Boulevard (LOS F with an average delay of 94.8 seconds during the weekday PM construction peak hour).
- The southbound Brush Avenue shared left-turn/through lane at Bruckner Boulevard (LOS E with an average delay of 55.6 seconds during the weekday AM construction peak hour and LOS E with an average delay of 60.8 seconds during the weekday PM construction peak hour).

2. Highway Analysis

Tables J-2 and J-4 in Appendix J presents the forecasted speeds, densities, and LOS for the highway segments analyzed. Table 20-6 presents a summary of the LOS by highway segment type for the No-Action Condition.

Table 20-6: No Action: Highway LOS Summary

Highway Segment Type	No. of Segments	Level of Service	Construction Peak	
			AM	PM
Basic	33	LOS A-C	26	20
		LOS D	4	6
		LOS E	3	3
		LOS F	0	4
Merge	11	LOS A-C	9	10
		LOS D	1	0
		LOS E	1	0
		LOS F	0	1
Diverge	12	LOS A-C	12	12
		LOS D	0	0
		LOS E	0	0
		LOS F	0	0
Weave	5	LOS A-C	5	4
		LOS D	0	0
		LOS E	0	0
		LOS F	0	1
# Segments	61	LOS E or F	4	9

The LOS summary of No-Action conditions indicates that:

- In the Construction AM peak hour, there are 4 out of 61 highway segments analyzed are at LOS E or F.
- In the Construction PM peak hour, there are 9 out of 61 highway segments analyzed that are at LOS E or F.

The highway segments with LOS E or F are listed below:

- WB Cross Bronx Expressway, Before Exit 5A (Construction AM)
- SB Hutchinson River Expressway near Bronx-Whitestone Bridge MTA Building (Construction AM and PM)
- NB Cross Bronx Expressway, at Castle Hill Ave (Construction AM)
- WB Bruckner Expressway, at Castle Hill Ave (Construction PM)
- WB Cross Bronx Expressway Merge with I-95 (Construction AM)
- WB Bruckner Expressway Approaching Exit 53 (Construction PM)
- SB Cross Bronx Expressway Approaching I-695 Merge (Construction PM)
- NB Bruckner Exp Approaching I-695 Merge (Construction PM)
- SB Hutchinson River Expressway SB downstream of Exit 18 (Construction PM)
- NB Hutchinson River Expressway downstream of Whitestone Bridge (Construction PM)

- SB I-678 Hutchinson River Expressway Merge with Ramps from CBE & Bruckner Expressway (Construction PM)
- SB Hutchinson River Expressway, Between On-ramp and Exit 18 (Construction PM)

With-Action Condition

As discussed in Chapter 14 of this EIS, "Transportation," in connection with development of the Proposed Facility, and in coordination with the NYCDOT, Ring Road would be widened and improved between Schley Avenue and the Development Site access driveway providing two travel lanes, a curbside parking lane, an MTA/NYCT bus stop to account for the anticipated expansion of MTA/NYCT bus service to the Development Site, a full-width contiguous sidewalk, landscape buffering, and a two-way bike lane. Near the I-678 overpass, the improved roadway would be narrowed, and the proposed curbside parking lane and landscape buffering would be eliminated to avoid conflict with a wetland and to provide adequate security spacing from an I-678 overpass structural support pier. Per the adopted alienation legislation, ownership of the improved Ring Road would be transferred from NYC Parks to NYCDOT, inclusive of the roadway cross-section elements discussed herein.

In the With-Action Condition, the construction-generated peak hour vehicle trips (see Table 20-4) were assigned to the study area intersections as described previously (see section *Peak Hour Construction Vehicle Trips*). The construction-generated vehicle trip assignments for the weekday AM and PM construction peak hours are shown in Appendix J – Figures J2-13 through J2-16. The With-Action Condition traffic volumes were projected by layering the construction-generated vehicle trip assignments on to the No-Action Condition traffic volumes.

The With-Action Condition traffic volumes for the weekday AM and PM construction peak hours are shown in Appendix J – Figures J2-17 and J2-18, respectively. The intersection capacity analysis results for the No-Action and With-Action Conditions, – including v/c ratios, delays, and LOS for the construction study intersections – are shown in Appendix J – Table J-1.

1. Study Area Street Network

In the With-Action Condition, five of the 38 total intersection approaches/lane groups in the study area could experience potentially significant adverse traffic impacts during at least one peak hour as a result of construction activities associated with the Proposed Development, namely:

- The northbound Hutchinson River Parkway Service Road left-turn at Lafayette Avenue, which would drop from LOS C to LOS F with an average delay of 226.0 seconds during the weekday AM construction peak hour, an increase of 203.9 seconds relative to the No-Action Condition.
- The westbound Lafayette Avenue left-turn at the southbound Hutchinson River Parkway Service Road, which would:
  - Drop from LOS B to LOS F with an average delay of 164.1 seconds during the weekday AM construction peak hour, an increase of 152.3 seconds relative to the No-Action Condition.

- Drop from LOS E to LOS F with an average delay of 261.5 seconds during the weekday PM construction peak hour, an increase of 201.2 seconds relative to the No-Action Condition.

- The eastbound Bruckner Boulevard right-turn at Brush Avenue, which would drop from LOS D to LOS E with an average delay of 56.9 seconds during the weekday AM construction peak hour, an increase of 6.1 seconds relative to the No-Action Condition.
- The eastbound Lafayette Avenue approach to the southbound Cross Bronx Expressway Extension, which would drop from LOS D to LOS E with an average delay of 63.4 seconds during the weekday PM construction peak hour, an increase of 18.2 seconds relative to the No-Action Condition.
- The eastbound Schley Avenue approach to the southbound Hutchinson River Parkway Service Road, which would drop from LOS B to LOS F with an average delay of 62.6 seconds during the weekday AM construction peak hour, an increase of 52.4 seconds relative to the No-Action Condition.

Chapter 22 of this EIS, "Mitigation," discusses potential measures to mitigate these potentially significant adverse traffic impacts.

2. Highway Analysis

Appendix J – Tables J-3 and J-5 presents the forecasted speeds, densities, and LOS for the highway segments analyzed. Table 20-7 presents a summary of the LOS by highway segment type for the Future With-Action conditions.

Table 20-7: With Action: Highway LOS Summary

Highway Segment Type	No. of Segments	Level of Service	Construction Peak	
			AM	PM
Basic	32	LOS A-C	25	19
		LOS D	5	6
		LOS E	3	3
		LOS F	0	5
Merge	11	LOS A-C	8	8
		LOS D	2	1
		LOS E	1	0
		LOS F	0	2
Diverge	12	LOS A-C	12	11
		LOS D	0	1
		LOS E	0	0
		LOS F	0	0
Weave	5	LOS A-C	5	3
		LOS D	0	0
		LOS E	0	0
		LOS F	0	2
# Segments	61	LOS E or F	4	12

The LOS summary of With-Action conditions indicates that:

- In the Construction AM peak hour, there are 4 out of 61 highway segments analyzed are at LOS E or F.
- In the Construction PM peak hour, there are 12 out of 61 highway segments analyzed that are at LOS E or F.

Comparing the density on the highway segments between the With Action and No Action conditions during the construction peak hours, there are five study area highway segments that would experience a potentially significant adverse traffic impact (the increase in highway density is greater than the CEQR thresholds):

- SB Cross Bronx Expressway Approaching I-695 Merge. During the weekday Construction PM peak hour, the basic freeway segment will continue to be LOS F with a change in highway density of 5 (pc/mi/ln)
- NB Hutchinson River Expressway near Bronx-Whitestone Bridge MTA Building. LOS D to E, during the weekday construction PM peak hour with a change in the highway density of 12 (pc/mi/ln)
- SB Hutchinson River Expressway downstream of Exit 18. During the weekday construction PM peak hour, the basic freeway segment will continue to be LOS F with a change in highway density of 6 (pc/mi/ln)
- SB Hutchinson River Expressway merge with Ramps from CBE & Bruckner Expressway. During the weekday construction PM peak hour, the merge segment will continue to be LOS F with a change in density of 26 (pc/mi/ln).
- SB Hutchinson River Expressway between On-ramp and Exit 18. During the weekday construction PM peak hour, the weaving segment will continue to operate at LOS F with a change in highway density of 19 (pc/mi/ln).

The feasibility of the proposed mitigation measures will be further explored by Bally's during construction of the Proposed Development with the implementation of a CTMP, as discussed in more detail in Chapter 22 of this EIS, "Mitigation."

Transit

The peak number of average daily workers on-site during the construction of the Proposed Development would occur in Q7, when there would be approximately 1,800 construction workers per day (see Table 20-3). Approximately 80 percent of the construction worker arrival and departure trips would take place during the weekday AM and PM construction peak hours. Furthermore, approximately 7.2 percent of the daily construction workers are expected to commute via the subway and approximately 7.2 percent are expected to commute via the CWFS. Therefore, the Proposed Development's construction activity is expected to generate a maximum of approximately 104 average subway trips and approximately 104 average CWFS trips during the weekday AM and PM construction peak hours.

This level of peak hour subway and CWFS trip generation is not expected to exceed the *CEQR Technical Manual* screening thresholds of 200 total peak hour trips for each of the subway and CWFS transit modes. Therefore, no further analysis is warranted, and the Proposed Development would not result in a potentially significant adverse transit impact during construction.

Pedestrians

The peak number of average daily workers on-site during project-generated construction would occur in Q7, when there would be approximately 1,800 construction workers per day (see Table 20-3). Approximately 80 percent of the construction worker arrival and departure trips would take place during the weekday AM and PM construction peak hours, respectively. Therefore, project-generated construction would generate a maximum of approximately 104 average pedestrian trips (resulting from the approximately 104 average CWFS trips) during the weekday AM and PM construction peak hours.

This level of peak hour pedestrian trip generation is not expected to exceed the *CEQR Technical Manual* screening threshold of 200 peak hour pedestrian trips. Therefore, no further analysis is warranted, and the Proposed Development would not result in a potentially significant adverse pedestrian impact during construction.

Parking

The peak number of average daily workers on-site during project-generated construction would occur in Q7, when there would be approximately 1,800 construction workers per day (see Table 20-3). Approximately 85.6 percent of construction workers are expected to commute to/from the Development Site via private autos, with an average vehicle occupancy of approximately 1.48 persons per vehicle. It is anticipated that construction activities at the Development Site are anticipated to take place in three daily shifts. However, it was conservatively assumed for purposes of this parking analysis that all peak daily workers would be on-site during the 6:00 AM to 2:30 PM shift. Therefore, the Proposed Development's construction activity is conservatively expected to generate a maximum parking demand of approximately 1,042 spaces during the weekday midday period.

This construction-generated demand would be accommodated by a dedicated off-street parking supply provided on the Development Site or in a private lot in the vicinity of the site. As such, the Proposed Development would not result in a potential public parking shortfall in the study area during construction.

Air Quality

Emissions from on-site construction equipment and on-road construction-related vehicles, as well as dust generated from construction activities, have the potential to affect air quality. The analysis of construction-related air quality emissions includes a qualitative and quantitative analysis of the above-mentioned emissions, where applicable. Stationary sources are qualitatively discussed, as the Proposed Development would use Best Available Technology (BAT), as prescribed in Local Law 77, and further quantitative analysis is not required as a result. However, a detailed quantitative air quality assessment for mobile sources was warranted to determine if construction would cause significant adverse air quality impacts.

Methodology

Stationary Sources

Fugitive dust generated by construction activities is a common source of particulate matter (PM) from excavation, demolition, transfer of debris into trucks, emissions from

on-site diesel equipment, and emissions from increased truck traffic to and from the construction site on local roadways. The highest construction emissions are typically generated during demolition, excavation, and foundation phases, since it is during these phases that the largest number of large, non-road diesel engines are employed, which combined with the fugitive dust from debris moving operations result in the highest levels of air emissions. The later phases of construction, including superstructure, exterior façades, interior fit-out and site work, typically result in lower air emissions since they require fewer pieces of heavy-duty diesel equipment and less intensive construction techniques. The later phases of construction generally involve use of smaller engines and electric tools dispersed vertically throughout the building, resulting in very low concentration increments in adjacent areas. Additionally, the later phases of construction do not involve soil disturbance activities and therefore result in significantly lower fugitive dust emissions. Construction activities associated with interior finishes are shielded from nearby sensitive receptors by the proposed structures themselves.

Mobile Sources

Construction activities result in an increase in mobile sources including worker/employee trips and various truck trips such as trash, concrete, and delivery trucks. These mobile sources generate emissions as the increased traffic travels to and from the construction site on local roadways. The air pollutants analyzed for construction mobile activities include nitrogen dioxide (NO_2), particulate matter with an aerodynamic diameter of less than or equal to 10 micrometers (PM_{10}), particulate matter with an aerodynamic diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$), and carbon monoxide (CO). Concentrations of these pollutants were predicted at nearby receptors along identified intersections and surrounding the construction site footprint. The mobile sources were modeled using traffic counts and schedules to project estimated concentrations during the weekday AM and PM construction peak hours. The results were compared to the CEQR de minimis criteria and NAAQS.

Stationary Sources

As discussed above, construction activities could affect air quality because of non-road engine emissions from on-site construction equipment and dust-generating activities. In general, much of the heavy equipment used in construction have diesel-powered engines. The principal pollutants associated with diesel-powered engines are nitrogen oxides and PM, while carbon monoxide is the principal pollutant of concern for gasoline engines. Construction activities also generate fugitive dust emissions. The project will utilize various emission control measures. The emission control measures discussed below would be expected to significantly reduce construction-generated emissions from stationary sources; therefore, an air quality analysis for on-site stationary construction equipment was not warranted.

Since ULSD will be used for all diesel engines related to construction activities because of federal and state mandates, sulfur dioxides (SO_2) emitted from those construction activities would be negligible, and an analysis of SO_2 emissions is not warranted. As stated above, construction activity in general, and large-scale construction in particular, has the potential to adversely affect air quality because of diesel emissions. The main component of diesel exhaust that has been identified as having an adverse effect on human health is fine particulate matter. To ensure that the construction of the Proposed Development results in the lowest feasible diesel particulate matter (DPM) emissions, a series of

emissions reduction strategies required by NYCDEP and State mandates would be followed.

Emission Control Measures

Emission evaluations assume reduction measures that are mandated by law and that would be put into practice for this construction project. Construction of the Proposed Development would be in accordance with all applicable laws, regulations, and building codes as described below, including the requirements of BAT, as prescribed in Local Law 77 and the NYC Air Pollution Control Code. These include the following:

- Fugitive Dust Control Plans. In compliance with the NYC Air Pollution Control Code's provisions regarding control of fugitive dust, contractors would be required to ensure that trucks carrying loose material use water as a dust suppression measure. Additionally, trucks hauling loose material would be equipped with tight-fitting tailgates and their loads would be securely covered prior to leaving the site. Streets adjacent to the site would be cleaned as frequently as needed by the construction contractor and water sprays would be used during lading/unloading to avoid generating dust. These measures would be expected to reduce dust generation by more than 50 percent.
- Clean Fuel. Only ultra-low sulfur diesel (ULSD) would be used to comply with the Rules of the City of New York Title 15, Chapter 14, Section 14-06. This has been a federal requirement since 2010 that enables the use of tailpipe reduction technologies that reduce diesel particulate matter and SO_2 emissions.
- Best Available Technologies. Non-road diesel engines with a power rating of 50 horsepower (hp) or greater will utilize BAT, as prescribed in Local Law 77, such as diesel particulate filters, to comply with the Rules of the City of New York Title 15, Chapter 14, Section 14-02. All diesel-powered non-road construction equipment greater than 50 hp would meet the EPA Tier 4 emissions standards. In addition, controlled truck fleets – including but not limited to concrete mixing and pumping trucks – would utilize BAT technology, as prescribed in Local Law 77, to reduce DPM emissions. Diesel particulate filters (DPFs) have been identified as being the tailpipe technology currently proven to have the highest reduction capability. DPFs would be installed either by the original equipment manufacturer or retrofitted. Retrofitted DPFs must be verified by EPA or the California Air Resources Board. Active DPFs or other technologies proven to achieve an equivalent reduction may also be used.
- Diesel Equipment Reduction. To the extent practicable, hoists and small equipment – such as welders, stud machines, and other equipment – would use electric motors that operate on grid power instead of diesel power engines. This is a common practice that has been achieving wider use as technology improves.
- Restrictions on Vehicle Idling. The NYC Administrative Code Title 24, Section 24-163 restricts unnecessary idling. In accordance with this code, on-site vehicle idle time would be restricted to three minutes for all equipment and vehicles that are not using their engines to operate a loading, unloading, or processing device (e.g., concrete mixing trucks) or otherwise required for the proper operation equipment.
- Source Location and Shielding. To reduce concentration increments at sensitive receptors, large emissions sources and activities such as concrete trucks,

generators, and large compressors will be located away from the sensitive receptors to the extent practical. On-site construction activities would occur behind a minimum 8-foot-tall wooden (or similar) construction fence.

Overall, these emission control measures would be expected to significantly reduce DPM emissions. In addition, all necessary measures would be implemented to ensure that the NYC Air Pollution Control Code provisions regulating construction-related dust emissions are followed.

Golfer Exposure

During construction of the Proposed Development, the Golf Course would continue to remain open (late March to early December) for golfers. Golfers would be closest to project-generated construction at the tee areas of holes 1 and 10, the green of hole 9, and the fairway of hole 18. Golfers would be temporarily exposed to air emissions when they are near the construction site, which cumulatively would be up to 30 minutes under worst-case conditions (assuming an approximately 4-5 hours for a round of golf). Golfers would be near the construction site for a continuous duration of up to 15 minutes at one time during worst-case conditions as they move from the green of hole 9 to the tee area of hole 10 (approximately 25 feet from the construction fence line).

With emission control measures in place, shielding of sensitive resources, and the commitment to use construction equipment meeting BAT, as prescribed in Local Law 77, construction of the Proposed Development is not expected to result in significant adverse construction air quality impacts to golfers.

Mobile Sources

Engine Emissions

Emission rates for NO_X, CO, PM_{10} and $PM_{2.5}$ for worker vehicle, truck engines, and subway shuttle buses were developed using the MOVES4 emission model. Shuttle buses were conservatively evaluated using the three large bus categories in MOVES, representative of school buses, intercity buses (identified as "Other"), and transit buses. These bus categories generate more emissions than a minibus, which would be utilized for the shuttle service.

A refined analysis was then completed for the identified pollutants. The refined analysis applied peak hour project-generated emission factors from the peak periods (i.e., morning (AM), evening (PM), morning off-peak hours (AM OP), and evening off-peak hours (PM OP)) to construction shift traffic volumes for weekdays, as construction is primarily anticipated to occur during weekdays.[6] For example, the emission factor calculated for the AM peak hour was applied to the corresponding hourly traffic count in the corresponding period (i.e., the AM peak hour emission factor was applied to model hour 06:00 (5:00-6:00 AM), the PM peak hour emission factor was applied to model hour 15:00 (2:00-3:00 PM), etc.).

Construction traffic volumes differ during the AM OP and PM OP hours. Emission rates for these time periods were calculated using emission factor sets in AERMOD. The AM peak hour emission rate was used as the "baseline" emission rate. For example, if the AM peak hour emission rate is 2.0 grams per second per square meter (g/s-m^2) and the AM OP

[6] Occasionally, Saturday, Sunday, or overtime hours may be required to complete time-sensitive tasks.

emission rate is 0.5 g/s-m^2, the emission factor for the AM peak hour would be 1.0 as the "baseline" and the AM OP time period would be 0.25. The variable emission factors were used to represent varying emissions rates and traffic volumes throughout each applicable time period, day of the week, and season throughout the year. Table 20-8 below provides a visual representation of the 24-hour emission factor used for each analysis.

Table 20-8: Analyses Peak Hour Emission Factors by 24-Hour Time Period

Construction	Peak Hour Emissions Rates Applied by Hour																								
Condition	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
No-Action	ON							AM					MD					PM							ON
With-Action						AM		AM OP								P M	PM OP								

In addition to the project-generated traffic emissions for the construction shift hours, No-Action traffic volumes and corresponding emission rates were applied to 24-hour time periods. These emission rates were combined in an hourly emissions file while the site-generated construction emission rates were modeled as sources with variable emission factors within AERMOD. Two sets of LINE and AREA source types were used to accommodate both sets of emission rates. A combined model was run to layer the site-generated construction emissions on the No-Action emissions to generate a With-Action result representing varying emissions rates and traffic volumes throughout the year.

Analysis Periods

The resulting emission factors were used for the dispersion analyses. In accordance with Chapter 14 of the EIS, "Transportation" typical construction peak hours in NYC occur between 6:00 – 7:00 AM and 3:00 – 4:00 PM. The construction trip schedule provided in the Transportation section of this chapter shows construction trips would peak one hour earlier in the weekday AM and PM (5:00 – 6:00 AM and 2:00 – 3:00 PM); therefore, mobile construction emissions were assumed to occur on weekdays between 5:00 – 6:00 AM and 2:00 – 3:00 PM.[7] Construction trip counts for mobile sources were assumed to occur for the construction period with the highest projected trip counts (i.e., Q7).

Dispersion Modeling

The dispersion of pollutants during the worst-case construction trip schedule period was modeled to predict resulting maximum concentration increments from construction-generated mobile sources (traffic), and the total concentrations (including background concentrations) that can be expected at sensitive receptors in the surrounding area.

Dispersion of pollutants were modeled using AERMOD version 23132 to predict maximum concentrations from construction-generated mobile sources. The pollutant concentration results were compared to the applicable NAAQS and CEQR *de minimis* criteria.

Source Simulation

Mobile construction sources were modeled as line sources at the identified intersections using traffic counts for the associated turning movements and time period (i.e., weekday AM and PM). The proposed construction site footprint was modeled as an area source

[7] As noted in the "Transportation" heading of this section, since background traffic volumes on study area roadways are typically higher during the 6:00 AM – 7:00 AM hour than the 5:00 AM – 6:00 AM hour, background traffic volumes during 6:00 AM – 7:00 AM were conservatively utilized for the weekday AM construction peak hour analyses.

based on the assumption that the mobile sources would move around the site throughout the year.

Receptor Locations

Receptors (locations in the model where concentrations are predicted) were placed at any sensitive nearby ground-level uses (e.g., Ferry Point Park) for the assessment. In addition, five rows of receptors at 25-meter intervals around the project following the boundaries of the roadways and construction site footprint were placed out to 105 meters. Receptors were placed at a flagpole height of 1.8 meters. The Proposed Facility and replacement golf clubhouse would not be completed and occupied during the worst-case construction periods; therefore, no on-site receptors were considered.

Meteorological Data

For the dispersion analysis, the most recent five years of meteorological data available (2015-2019) from LaGuardia Airport and concurrent upper air data from Brookhaven, New York, were used for the simulation program.

Background Concentrations

Background concentrations were added to modeling results from construction mobile sources to obtain cumulative pollutant concentrations at the receptor locations. The background concentrations used in the analysis were in the statistical format of the NAAQS, which was adopted by New York State as the State standard.

The most recent available background values were obtained from the New York State ambient air quality reports for the Queens NR (CO), IS 52 (NO_2 and PM_{10}), and IS 74 ($PM_{2.5}$) monitoring stations.[8]

Construction Air Quality Analysis Results for Mobile Sources

Maximum predicted concentration increments from the worst-case construction mobile source period and maximum cumulative concentrations are presented in Table 20-9. The maximum predicted concentration increments include construction mobile sources for the no-action and with-action conditions.

[8] Department of Environmental Conservation: NYS Ambient Air Quality Reports for 2021.

Table 20-9: Maximum Predicted Pollutant Concentrations – Peak Construction Analysis Period for Mobile Sources (µg/m³)

			Condition		Concentrations			
Pollutant	Averaging Period	Background	No-Action	With-Action	Max. Modeled Increment	*De Minimis*	Projected	NAAQS
$PM_{2.5}$	24-hour	19.5	1.97	2.10	0.12	7.8	21.6	35
	Annual	8.2	0.25	0.29	0.04	0.10	8.49	9
PM_{10}	24-Hour	37	8.69	9.22	-	-	46.2	150
NO_2	1-hour	101.8	11.6	56.3	-		158	188
	Annual	29.2	2.29	3.51	-	-	32.7	100
CO	1-hour	2,999.9	663	1,313	-	-	4,312	40,000
	8-hour	1,946.5	188	207	649	5,088	2,154	10,000

Off-Site Parking Facilities

Construction worker parking is proposed to be located on the Development Site or in an off-site parking facility located within the transportation study area – as defined in Chapter 14 of this EIS, "Transportation." If off-site parking within the transportation study area is not available, off-site parking facilities outside the transportation study area will be evaluated between Draft and Final EIS and may be used for construction workers who would then be shuttled to the Development Site.

If necessary, as part of the CTMP Bally's will identify and analyze potential off-site parking facilities outside of the transportation study area and will submit the results of these analyses (transportation, noise, and air quality analyses) to the NYCDOT, NYCDEP, and the Lead Agency review and approval.

Locations outside of the transportation study area will not be selected by Bally's if the selection of such facilities creates a new significant adverse transportation, noise, or air quality impact.

Air Quality Conclusion

Measures would be taken to reduce pollutant emissions during construction in accordance with all applicable laws, regulations, and building codes. These include dust suppression measures, idling restriction, and the use of ULSD. Project commitments, including use of BAT as prescribed in Local Law 77, would also be included. In addition to the required laws and regulations, an emissions reduction program and utilization of Tier 4 equipment would be implemented for stationary construction sources greater than 50 hp. In future years, emissions from construction equipment are expected to decrease as newer and cleaner engines are developed, irrespective of any project specific commitments.

The dispersion modeling analysis of construction-related air emissions for mobile construction sources show that all pollutant emissions would be below the NAAQS and CEQR *de minimis* thresholds. Accordingly, the Proposed Actions would not result in significant adverse air quality impacts from mobile sources, and further analysis is not warranted.

Noise

Increased noise levels during construction would result from construction equipment and from vehicles traveling to and from the construction site. Construction-generated noise levels at sensitive receptors vary widely and depend on the stage of construction and the location of the construction activities relative to noise-sensitive receptor locations.

The most significant construction noise sources are expected to result from impact equipment – such as pile drivers and hoe rams – as well as truck movements. Noise from construction activities and some construction equipment is regulated by the NYC Noise Control Code and by EPA. The NYC Noise Control Code requires the adoption and implementation of a noise mitigation plan for the construction site, limits construction (absent special approvals) to weekdays between the hours of 7:00 AM and 6:00 PM and sets noise limits for certain specific pieces of construction equipment as well as an overall construction noise level limit of 85 dB(A) (L_{max}).

Because of the scope, duration, and location of project-generated construction activities, a quantified construction noise analysis was warranted. The purpose of this analysis was to determine if significant adverse noise impacts would occur during construction, and if so, to examine the feasibility of implementing measures to reduce or eliminate such impacts. Noise levels monitored in support of this EIS were used as the baseline for estimating construction-generated noise level increases.

Methodology

Project-generated construction activities would result in increased noise levels from construction equipment and construction-related vehicles movements (i.e., worker trips, and material and equipment trips) on the surrounding roadways. The effects of each of these noise sources were evaluated. The results show the projected noise levels from construction activities (i.e., noise due to both on-site construction equipment and construction-related vehicle operation).

Noise generated by construction equipment at a specific receptor location near a construction site is calculated by computing the sum of the noise produced by all pieces of operating equipment. For each piece of equipment, the noise level at a receptor site is a function of:

- The noise emission level and quantities of equipment;
- A usage factor, which accounts for the percentage of time equipment is operating at full power;
- The distance between the piece of equipment and the receptor;
- Topography and ground effects; and
- Shielding (such as by buildings or other noise barriers).

Similarly, noise levels due to construction-related traffic are a function of:

- The noise emission levels of the type and volume of vehicles (e.g., auto, light-duty truck, heavy-duty truck, bus, etc.);
- Vehicular speed;
- The distance between the roadway and the receptor;

- Topography and ground effects; and
- Shielding.

Construction noise is regulated by the NYC Noise Control Code (Chapter 24 of the Administrative Code of the City of New York, or Local Law 113), the DEP Notice of Adoption Rules for Citywide Construction Noise Mitigation (also known as Chapter 28), and EPA noise emission standards. These local and federal requirements mandate that:

- Construction equipment and motor vehicles meet specified noise emission standards;
- Construction activities are limited to 85 dB(A) L_{max} weekdays between the hours of 7:00 AM and 6:00 PM; and
- Construction materials be handled and transported in such a manner as not to create unnecessary noise.

For weekend and after-hours construction work, DOB permits would be required, as specified in the NYC Noise Control Code. In addition, EPA requirements mandate that certain classifications of construction equipment meet specified noise emission standards.

The *CEQR Technical Manual* states that significant adverse construction impacts in the area of noise would occur "only at sensitive receptors that would be subjected to high construction noise levels for an extensive period of time." To determine the potential for significant adverse impacts caused by project-generated construction activity, the construction noise was initially compared to the impact criteria outlined in Chapter 19, "Noise." If the construction noise levels exceed the significant adverse impact criteria, then the affected area and the magnitude and the duration of impacts would be also considered to account for the temporary or transient nature of construction noise impact. Therefore, the noise impact criteria described in Chapter 19, Section 410 of the *CEQR Technical Manual* serve as a screening-level threshold for potential construction noise impacts.

If construction of a proposed project would not exceed these criteria at a given receptor, then that receptor would not have the potential to experience a construction noise impact. However, if construction noise would exceed the CEQR noise impact criteria, then further consideration of the intensity and duration of construction noise is warranted at that receptor.

Screening Criteria

The screening level noise impact thresholds for on-site construction activities and on-road construction mobile sources are as follows. Impacts that meet the below the threshold would require further analysis.

- If the No-Action noise level is less than 60 dBA $L_{eq(1)}$, the significant impact incremental noise level is 5 dBA $L_{eq(1)}$ or greater;
- If the No-Action noise level is between 60 dBA $L_{eq(1)}$ and 62 dBA $L_{eq(1)}$, the resultant significant impact $L_{eq(1)}$ is 65 dBA or greater;
- If the No-Action noise level is equal to or greater than 62 dBA $L_{eq(1)}$, or if the analysis period is a nighttime period (defined in the CEQR criteria as being

between 10:00 PM and 7:00 AM), the significant impact incremental noise level is 3 dBA $L_{eq(1)}$ or greater.

Noise Impact Determination

A significant adverse construction impact could also occur if project-generated construction would result in prolonged exposure to levels above 85 dB(A), a noise level that will eventually harm hearing. NYC Noise Code also prohibits construction noise levels over 85 dB(A) at sensitive receptors.

While the above criteria is used as a guideline, whether or not significant adverse impacts are identified is on a case-by-case basis depending on the duration and magnitude of noise level and noise level increment.

As discussed below, the presence of window/wall attenuation measures at noise receptor sites, such as double-glazed windows and alternate means of ventilation, were considered when evaluating locations projected to experience significant noise level increases from construction.

Construction Noise Modeling

Noise from project-generated construction activities were evaluated using the commercial CadnaA model, a computerized model developed for noise prediction and assessment. The model can be used to analyze a variety of noise sources, including stationary sources (e.g., construction equipment, industrial equipment, and power generation equipment) and mobile sources (e.g., roads, highways, railroad lines, busways, airports). The model considers the reference sound pressure levels of the noise sources at 50 feet, attenuation with distance, ground contours, reflections from barriers and structures, attenuation due to shielding, and other conditions. The CadnaA model is based on the acoustic propagation standards promulgated in International Standard ISO 9613-2. This standard is currently under review for adoption by the American National Standards Institute (ANSI) as an American Standard. The CadnaA model is a state-of-the-art tool for noise analysis and is approved for construction noise level prediction by the *CEQR Technical Manual*.

Geographic data input into the CadnaA model included site work areas, adjacent building envelopes, the locations of streets, and the locations of sensitive receptors. For each analysis period, the geographic location and operational characteristics—including equipment usage rates (percentage of time operating at full power) for each piece of construction equipment, as well as noise control measures—were input into the model. Noise-reflective and noise-shielding barriers that would be erected on the construction site were considered, as well as shielding from both adjacent buildings and project-generated buildings as they are constructed. The model produces A-weighted $L_{eq(1)}$ noise levels at each receptor location for each analysis period, as well as the contribution from each noise source.

In general, the CadnaA methodology involved the following process:

- Establish noise levels at receptors in the Study Area using the CadnaA model for the Development Site across the analysis periods.
- Receptors were either located directly adjacent to the construction site or along streets where construction trucks would pass. Each receptor was placed at a residence or other noise-sensitive use. The receptors in the model are selected

to be representative of other noise receptors in the immediate area, and to conservatively predict the noise conditions around the Study Area;

- Input the construction-generated noise sources, as determined by the conceptual construction schedule and equipment schedule;
- Based on the CadnaA model outputs, determine the receptor locations that would experience noise levels that would exceed the significant adverse noise impact threshold criteria during each analysis period; and
- Determine receptor locations with significant adverse construction noise impact based on the intensity and duration of noise level increases above the impact criteria and interior noise levels above the acceptable levels.

On-Site Equipment Noise

The equipment anticipated to be used during the construction of the Development Site is shown in Table 20-10. The total active pieces of each equipment at any time were used as the source input for the noise model.

Table 20-10: Typical Construction Equipment Noise Emission Levels (dBA)

Equipment Description	Usage Factor (%)	DEP & FTA Typical L_{max} Noise Level at 50 ft
All Other Equipment > 5 HP	50	85
Auger Drill	20	85
Backhoe	40	80
Bar Bender	20	80
Compactor Equipment (ground)	20	80
Compressor (air, ≤ 350 cfm)	40	75[A]
Compressor (air, > 350 cfm)	40	80[A]
Concrete Saw	20	90
Concrete Mixer Truck	40	85
Concrete Pump Truck	20	82
Crane	16	85
Dozer	40	85
Drill Rig Truck	20	84
Dump Truck	40	84
Dumpster/Rubbish Removal	20	78
Excavator	40	85
Flat Bed Truck	40	84
Front End Loader	40	80
Generator (< 25 KVA, VMS signs)	50	70
Gradall	40	85
Grader	40	85
Grapple (on Backhoe)	40	85
Horizontal Boring Hydr. Jack	25	80

Equipment Description	Usage Factor (%)	DEP & FTA Typical L_{max} Noise Level at 50 ft
Hydra Break Ram	10	90
Impact Pile Driver	20	95
Jackhammer	20	85
Man Lift	20	85
Mounted Impact Hammer (Hoe Ram)	20	90
Pavement Scarifier	20	85
Paver	50	85
Pickup Truck	40	55
Pneumatic Tools	50	85
Pumps	50	77
Refrigerator Unit	100	82
Rivet Buster/Chipping Gun	20	85
Rock Drill	20	85
Roller	20	85
Sand Blasting	20	85
Scraper	40	85
Slurry Trenching Machine	50	82
Tractor	40	84
Vacuum Excavator	40	85
Vacuum Street Sweeper	10	80
Ventilation Fan	100	85
Vibrating Hopper	50	85
Vibratory Concrete Mixer	20	80
Warning Horn	5	85
Water Truck	20	85
Welder/Torch	40	73

Notes: As per Local Law 113 of 2005, §24-228(a)(1) Construction, Exhausts, and other Devices, "Sound, other than impulsive sound, attributable to the source or sources, that exceeds 85 dBA as measured 50 or more feet from the source or sources at a point outside the property line where the source or sources are located or as measured 50 or more feet from the source or sources on a public right-of-way" is prohibited.
[A] Indicates the value is from Local Law 113; other values are from 15 RCNY §28-109, Appendix.
Sources: Citywide Construction Noise Mitigation, Chapter 28, Department of Environmental Protection of New York City, 2007. Transit Noise and Vibration Impact Assessment, FTA, 2006

The Development Site is above a closed landfill and the landfill may contain materials of various resistance. To install deep foundation options such as piles, Bally's anticipates predominantly using auger drills or mounted impact hammers to drive piles to bedrock. However, this construction noise analysis conservatively assumes the use of two impact pile drivers and one auger drill during worst-case conditions to reflect the potential use of impact pile drivers, the noisiest equipment listed per the *CEQR Technical Manual*.

Noise Reduction Measures

Construction would follow the noise control measures of the NYC Noise Control Code (NYC Noise Code). Specific noise control measures will be described in a noise mitigation plan that is required under the NYC Noise Code. These measures could include a variety of source and path controls. For source controls (i.e., reducing noise levels at the source or during the most sensitive time periods), the following measures would be implemented in accordance with regulations:

- The contractor would self-certify that all construction tools and equipment have been maintained to not generate excessive or unnecessary noise and that the noise emissions would not exceed the levels specified in Subchapter 5 of the NYC Noise Control Code and Table 22-1 of the 2021 *CEQR Technical Manual*.
- As early in the construction period as logistics would allow, diesel- or gas-powered equipment would be replaced with electrical-powered equipment such as welders, water pumps, bench saws, and table saws (i.e., early electrification) to the extent feasible and practical;
- Where feasible and practical, construction areas would be configured to minimize back-up alarm noise.
- All trucks would not be allowed to idle more than three minutes in accordance with Title 24, Chapter 1, Subchapter 7, Section 24-163 of the NYC Administrative Code;
- Contractors and subcontractors would be required to properly maintain their equipment and mufflers.

In addition, source controls listed below would be implemented as PCREs, which are beyond New York regulations:

- Bally's commits to using generator units that emit a Lmax noise level of not more than 70 dBA at a distance of 50 feet. This commitment would be a project component related to the environment (PCRE).

For path controls (e.g., placement of equipment, implementation of barriers or enclosures between equipment and sensitive receptors), the following construction measures, would be implemented in accordance with New York City and State regulations to the extent feasible and practical:

- Where logistics allow, noisy equipment, such as cranes, concrete pumps, concrete trucks, and delivery trucks, would be located away from and shielded from sensitive receptor locations. Once building foundations are completed, delivery trucks would operate behind construction fences, where possible;
- Noise barriers constructed from plywood or other materials would be installed to provide shielding (e.g., the Development Site would have a minimum eight-foot-tall barrier and, where logistics allow, truck deliveries would take place behind these barriers once building foundations are completed);
- Path noise control measures (i.e., portable noise barriers, panels, enclosures, and acoustical tents, where feasible) would be required for certain dominant noise equipment (i.e., generators, jack hammers, pile drivers, and pumps) to the extent feasible and practical, where this analysis indicates there may be a potential for a significant adverse impact. The details to construct portable noise barriers,

enclosures, tents, etc., are provided in DEP's Rules for Citywide Construction Noise Mitigation.

Receptor Sites

The Development Site is near the Golf Course's driving range and holes 1, 9, 10, and 18. Golf Course users would only be exposed to the highest construction-noise levels in areas of the course that are nearest construction activities, notably the teeing areas on holes 1 and 10, the green hole on 9, and the fairway on hole 18. The United States Golf Association recommends that a hole take between 13 and 17 minutes, depending on skill level and the par of the hole. Each hole is typically more than 100 yards, and noise levels therefore vary on each hole depending on the location of the golfer and the proximity of noise sources.

Assuming golfers are in each of the teeing area, fairway, and green for about 5 minutes, Golf Course users are projected to be closest to project-generated construction activities for about 25 minutes but could be more or less depending on the skill of the golfer. A duration of 25 minutes represents approximately 8 percent of an estimated 306-minute round of golf. In areas of the Golf Course that are farther away from the Development Site, construction-generated noise would be less.

A total of 31 locations were identified as sensitive receptor sites to measure baseline existing noise levels. Receptor locations were chosen because of their use and location proximity to the areas of construction. At the Golf Course, receptor locations were placed on the green at hole 9, the teeing area on hole 10, the fairway on hole 18, and the driving range. Figure 20-5 shows the location of the selected receptors. The land use at each receptor is described in Table 20-11.

Baseline noise conditions in the noise model were established by calibrating the model using the noise levels captured from the project's noise reading locations (see Chapter 15, "Noise"). The ambient conditions at the receptors of concern evaluated range from 61.4 dBA to 76.4 dBA.

Figure 20-5: Receptor Locations



Table 20-11: Noise Receptors by Location and Land Use

Receptor	Location	Land Use
1	2576 Miles Ave	Residential
2	278 Emerson Ave	Residential
3	276 Emerson Ave	Residential
4	274 Emerson Ave	Residential
5	272 Emerson Ave	Residential
6	270 Emerson Ave	Residential
7	268 Emerson Ave	Residential
8	266 Emerson Ave	Residential
9	264 Emerson Ave	Residential
10	258 Emerson Ave	Residential
11	252 Emerson Ave	Residential
12	250 Emerson Ave	Residential
13	244 Emerson Ave	Residential
14	238 Emerson Ave	Residential
15	236 Emerson Ave	Residential
16	234 Emerson Ave	Residential

Receptor	Location	Land Use
17	230 Emerson Ave	Residential
18	226 Emerson Ave	Residential
19	2576 Harding Ave	Residential
20	204 Emerson Ave	Residential
21	202 Emerson Ave	Residential
22	200 Emerson Ave	Residential
23	198 Emerson Ave	Residential
24	196 Emerson Ave	Residential
25	2577 Schurz Ave	Residential
26	2578 Schurz Ave	Residential
27	492 Hutchinson River Parkway (MTA Building)	Commercial
28	555 Hutchinson River Parkway (Capri Whitestone Motel)	Commercial/Residential
29	500 Brush Avenue (Matell Construction Warehouse)	Commercial
30	Ferry Point Park	Park
31	Ferry Point Golf Course (Hole 9 Green)	Park
32	Ferry Point Golf Course (Driving Range)	Park
33	Ferry Point Golf Course (Hole 10 Tee)	Park
34	Ferry Point Golf Course (Hole 18 Fairway #1)	Park
35	Ferry Point Golf Course (Hole 18 Fairway #2)	Park

Each modeled receptor site represents the location of a residence or other noise-sensitive use. Where warranted, multiple building façades and elevations were analyzed. The receptor sites selected for detailed analysis are representative of other noise receptors in the immediate area and are the locations where worst-case project-generated construction noise would occur.

Project-generated noise level increases and noise levels were predicted at each of the representative noise receptor locations. Because noise diminishes as distance increases, the geographic extent of potential construction-generated noise increases can be estimated based on a receptor's distance from construction activities. The receptor locations were determined based on the locations that would experience construction noise levels that may exceed the noise impact threshold criteria. The conceptual construction schedule was used to determine duration of the construction noise levels, the receptors that could experience construction noise levels that exceed the noise impact threshold criteria.

Construction Noise Analysis Results

The construction noise modeling followed the methodology described above. It also incorporated the noise abatement measures for source and path controls that are required to satisfy DEP's Rules for Citywide Construction Noise Mitigation. The cumulative noise analyses were performed to determine maximum one-hour equivalent ($L_{eq(1)}$) noise levels that would be expected to occur during each of the excavation/foundation, superstructure, and interior fit-out construction stages. The noise analysis found that project-generated construction noise would have the potential to result in an increase in noise levels that exceed the screening CEQR noise impact threshold criteria during one or

more months at several receptor locations, and on one or more floors of some receptor locations. The predicted worst-case, maximum quarterly noise levels would exceed the 3 dBA increase threshold criteria on one or more floors of fifty-three receptor locations (several receptor locations included receptors at varying elevations due to noise-sensitive uses). These increases are based on a comparison to existing conditions.

The maximum quarterly noise increase at the sensitive receptor sites listed above range up to a maximum noise level of 78.1 dBA at the Golf Course during quarters 6 and 8, and a maximum increment of 15.0 dBA at the Golf Course during these same construction quarters. Work during quarters 6 and 8 is projected to be primarily in the interior fit-out phase and noise would be significantly reduced by the façade since it will be in place before interior fit-out work begins (the noise model assumes worst-case conditions with no façade attenuation).

The construction noise analysis results indicate there would be no receptors where noise levels would exceed 85 dBA, which is the Public Health noise exposure limit and the limit provided by NYC Noise Code. Table 20-12 shows the five receptors that would experience the highest maximum noise increases from project-generated construction by quarter (one quarter represents a three-month period).

Table 20-12: Maximum Quarterly Incremental Noise Levels (dBA) at Representative Worst-Case Receptors

ID	Property	Condition	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	Golf Course (Hole 9 Green)*	Projected Sound Level	76.0	77.1	77.2	78.0	78.0	78.1	77.8	78.1	76.8	72.9
		Increase Over Ambient	12.9	14.0	14.1	14.9	14.9	15.0	14.7	15.0	13.7	12.9
2	Ferry Point Park	Projected Sound Level	68.7	69.8	69.4	70.1	70.1	70.2	69.7	70.1	69.3	66.2
		Increase Over Ambient	5.6	6.7	6.3	7.0	7.0	7.1	6.6	7.0	6.2	5.6
18	226 Emerson Avenue Level 1	Projected Sound Level	65.6	66.4	66.1	66.7	66.7	66.8	66.5	66.8	66.2	63.3
		Increase Over Ambient	4.2	5.0	4.7	5.3	5.3	5.4	5.1	5.4	4.8	4.2
16	234 Emerson Avenue Level 1	Projected Sound Level	65.5	66.2	66.0	66.6	66.6	66.7	66.4	66.8	66.2	63.3
		Increase Over Ambient	4.1	4.8	4.6	5.2	5.2	5.3	5.0	5.4	4.8	4.1
15	236 Emerson Avenue Level 1	Projected Sound Level	65.6	66.3	66.0	66.6	66.6	66.7	66.4	66.8	66.2	63.3
		Increase Over Ambient	4.2	4.9	4.6	5.2	5.2	5.3	5.0	5.4	4.8	4.2

*Hole 9 Green is presented since it is the worst-case receptor for all golf course receptors with the highest level of noise exposure.
Note: Each Quarter represents a three-month time period.

Most of the receptors in the Study Area have single pane windows, while some are improved with double pane windows. Single pane windows with alternate means of ventilation are estimated to have a minimum attenuation of 25 dBA, and double pane windows with alternate means of ventilation are estimated to have a minimum attenuation of 30 dBA. Receptors with single pane windows and either through-wall or through-window air conditioning units were noted, as this could affect interior noise levels.

For sensitive receptors on Emerson Avenue, the maximum With-Action noise levels generally fall under the "Marginally Acceptable" noise category, which does not generally require attenuation.

Based on the maximum estimated quarterly construction noise levels, maximum interior noise levels of approximately 40 dBA would occur in a closed-window conditions where single pane windows are used, and an approximate interior noise level of 35 dBA would occur in a closed-window condition where double pane windows are used. The

construction noise may be audible; however, the project-generated noise will not exceed the CEQR criteria for a significant adverse impact. The analysis details the worst-case scenario for the peak hourly noise levels that would result from construction in each quarter when all equipment is assumed to operate simultaneously and consequently is conservative in predicting significant increases in noise levels. Typically, the loudest hourly noise level during each quarter of construction would not persist throughout the entire quarter. Therefore, actual noise levels would likely be lower than the modeled worst-case conditions.

Nighttime (10:00 PM to 7:00 AM) construction may be required for the Proposed Development. Construction activities during the nighttime period are anticipated to generate less noise than daytime construction and would be subject to the conditions imposed by DOB as a condition of an After-Hours Variance. Such conditions would include the implementation of an approved noise mitigation plan. By adhering to the approved noise mitigation plan, nighttime construction-generated noise at nearby sensitive nighttime receptors would be minimized to the extent deemed appropriate by DOB.

The Proposed Development is projected to increase traffic-generated noise during the construction period. In the No-Action Condition – absent construction of the Proposed Facility – approximately 194 vehicles are projected to use Ring Road during the 5:00 AM to 6:00 AM construction peak hour. Assuming construction occurs in one shift, construction of the Proposed Development has the potential to generate up to 984 inbound vehicular trips and 151 outbound trips during the AM construction peak hour, the worst peak hour for construction (see Table 20-4). Of these construction-generated peak hour trips, approximately 145 inbound trips and 145 outbound trips would be trucks. Thus, construction-generated traffic has the potential to double the PCEs along Ring Road and increase the noise levels in Ferry Point Park near Ring Road by more than 3 dB(A). Accordingly, the Proposed Development may result in a significant adverse construction noise impact to the Park. Between Draft and Final EIS, additional analysis may be undertaken to refine the projected noise levels in the Park during construction.

Off-Site Parking Facilities

Construction worker parking is proposed to be located on the Development Site or in an off-site parking facility located within the transportation study area – as defined in Chapter 14 of this EIS, "Transportation." If off-site parking within the transportation study area is not available, off-site parking facilities outside the transportation study area may be evaluated between Draft and Final EIS for use by construction workers who would then be shuttled to the Development Site.

If necessary, as part of the CTMP, Bally's will identify and analyze potential off-site parking facilities outside of the transportation study area. Between Draft and Final EIS, Bally's will submit the results of these analyses (transportation, noise, and air quality analyses) to the NYCDOT, NYCDEP, and the Lead Agency review and approval.

Locations outside of the transportation study area will not be selected by Bally's if the selection of such facilities creates a new significant adverse transportation, noise, or air quality impact.

Noise Conclusion

Construction-generated noise would have the potential to result in significant adverse construction noise impacts. Chapter 22 of this EIS, "Mitigation," discusses potential measures to mitigate these potentially significant adverse noise impacts.

Noise increases would not exceed the NYC Noise code limit of 85 dB(A) at any receptor. Construction is projected to increase noise levels highest at the Golf Course, where golfers could experience up to a 12- to 15-dB(A) increase in noise levels under worst-case conditions for up to 10 construction quarters (30 months). However, most work during construction quarters 6 through 8 – the nosiest construction quarters – is in the interior fit-out phase and noise would be significantly reduced by the Proposed Facility's façade since it will be in place before interior fit-out work begins. The façade would likely attenuate noise that is generated within the building by a minimum of 10 dB(A), resulting in significantly lower noise levels and smaller affected area during these quarters.

The nearest residences – more than 1,000 feet away from the Development Site along Emerson Avenue – are projected to experience a maximum increase in the L_{eq} noise level of 5.4 dB(A) during construction. Considering the magnitude, duration and the affected area, these noise level increases are considered temporary and transient. Therefore, they do not result in significant construction noise impacts on these residences. Interior fit-out is anticipated to begin in quarter 6 (around construction month 18), and the projected noise level does not consider the attenuation that would be provided by the installed façade in quarters 6 through 10. If the attenuation provided by the façade were to be considered, the L_{eq} noise level increase at nearby residences is projected to be less than 5.4 dB(A) (and potentially no increase in noise levels) from quarter 6 onwards. Construction during nighttime hours would be subject to the conditions imposed by DOB as a condition of an After-Hours Variance. Such conditions would include the implementation of an approved noise mitigation plan. By adhering to the approved noise mitigation plan, nighttime construction-generated noise at nearby sensitive nighttime receptors would be minimized to the extent deemed appropriate by DOB.

The Development Site is near the Golf Course's driving range and holes 1, 9, 10, and 18. Golf Course users would only be exposed to the highest construction-noise levels in areas of the course that are nearest construction activities, notably the teeing area on holes 1 and 10, the green hole on 9, and the fairway on hole 18. The United States Golf Association recommends that a hole take between 13 and 17 minutes, depending on skill level and the par of the hole. Each hole is typically more than 100 yards, and noise levels therefore vary on each hole depending on the location of the golfer and the proximity of noise sources.

Assuming golfers are in each of the teeing area, fairway, and green for about 5 minutes, Golf Course users are projected to be closest to project-generated construction activities for about 25 minutes but could be more or less depending on the skill of the golfer. A duration of 25 minutes represents less than 8 percent of an estimated 306-minute round of golf. In areas of the Golf Course that are farther away from the Development Site, construction-generated noise would be less.

The effects of construction-generated vehicles using Ring Road to access or egress the Development Site may also result in a potential significant adverse noise impact on portions of the Park. Additional analysis may be conducted between Draft and Final EIS to analyze the effects of construction-generated vehicular noise (including the additional

potential increase in noise levels associated with construction on the Development Site) on the Park.