

Attachment E  
Mitigation, Minimization and Monitoring Requirements



## Attachment E. Mitigation, Minimization and Monitoring Requirements

Final design for the Penn State Access Project, based on the 30 percent design drawings, is to be completed by a design-builder. The selected design-builder will be responsible for final design and construction of the Proposed Project that meets the specifications established by MTA, including any mitigation defined in the FONSI, complies with all applicable regulations, and incorporates measures to minimize impacts from construction on the local community. MTA will oversee the design-build process and have ultimate responsibility for project implementation. The following table summarizes the mitigation, minimization and monitoring requirements, and identifies the organizations with primary responsibility for those requirements and the general timeframe in the design-build process when those requirements must be met.



**Mitigation, Minimization and Monitoring Requirements**

Mitigation, Minimization and Monitoring Requirements

Environmental Technical Area	Impact	Mitigation, Minimization and Monitoring	Primary Responsible Parties	Timing
<b>COMMUNITY FACILITIES AND SERVICES</b>				
CF 1	Additional NYPD resources at Metro-North Stations.	NYPD department executives will evaluate personnel needs prior to the start of the proposed Metro-North service and will allocate resources accordingly.  Police protection at the proposed stations will be provided by District 6 of the MTA Police Department as needed	NYPD	Post-Construction
CF 2	Additional FDNY resources at Metro-North Stations.	FDNY will evaluate the need for personnel and equipment and make necessary adjustments to adequately serve the area. FDNY will be consulted during the later design phases under the Proposed Project to ensure appropriate accommodation of potential future FDNY operations at the proposed stations.	FDNY	Post-Construction
<b>VISUAL RESOURCES</b>				
VR 1	Visual impact to the Parkchester Apartment Complex due to the new Parkchester – Van Nest station.	The design-builder will design the proposed Parkchester-Van Nest station to celebrate the local community character by incorporating contextually sensitive design elements into the station architecture, as appropriate and consistent with Metro-North standards.	Design-Build Contractor with MTA oversight	Final Design
VR 2	Visual impact to the Parkchester Apartments Complex due to the new Van Nest AC substation.	The design-builder will incorporate contextually sensitive design elements into the Van Nest AC Substation façade, as appropriate and consistent with Metro-North standards.	Design-Build Contractor with MTA oversight	Final Design
<b>PUBLIC OPEN SPACE AND RECREATION</b>				
OS 1	Refuse from Metro-North Station.	The design-builder will ensure that measures are in place to prevent refuse from migrating from the proposed Co-op City Station into Pelham Bay Park, such as the installation of fencing between the park and the railroad right-of-way in order to prevent access to the park from the station and to minimize the occurrence of wind-blown refuse to the park.	Design-Build Contractor with MTA oversight	Construction & Post-Construction
OS 2	Fencing between Starlight Park and the railroad right-of-way and Pelham Bay Park and railroad right-of-way in the Co-op City Station area	MTA and the design-builder will coordinate with NYCDPR in advance of any new fencing between parks and the railroad right-of-way. The design-build contractor will repair or replace any deteriorated sections of the perimeter fence at Starlight Park impacted by construction.	NYCDPR / MTA / Design-Build Contractor	Pre-Construction / Construction



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OS 3	Construction in or near City parklands	Design-build contractor will obtain a NYCDPR Construction Permit for any activities with the potential to affect City parklands. At any City park location, disruption will be kept to a minimum and no staging, storage, or vehicle parking will take place unless a permit or other agreement is negotiated.	Design-Build Contractor with MTA oversight	Pre-Construction / Construction
OS 4	A permanent easement located immediately adjacent to the rail right-of-way would be required in Concrete Plant Park, Starlight Park and Pelham Bay and Split Rock Golf Courses.	Access to the parks will be maintained during construction and access agreements following construction will permit use of existing or planned paths / roads within the parks for maintenance purposes.	MTA / Design-Build Contractor	Construction & Post-Construction
<b>NATURAL RESOURCES</b>				
NR 1	Removal of between 300 and 500 trees the right-of-way.	As per NYCDPR requirements, where the Proposed Project would involve work on or within 50 feet of a tree under City jurisdiction, the design-builder will obtain a Tree Work Permit from NYCDPR prior to the start of construction, and perform all work in compliance with NYCDPR's Tree Valuation Protocol and Tree Protection Protocol. A Memorandum of Agreement between MTA and NYCDPR will establish the procedures for surveying the trees by a certified arborist, submitting project design plans for NYDPR review, and determining restitution requirements. To protect migratory birds and breeding birds, tree removal work on public parkland or removal of other City trees identified by the survey as potential habitat for such birds would not be conducted between April 1st and September 31st.	NYCDPR / MTA / Design-Build Contractor	Pre-Construction
NR 2	Limited in-water work at the Bronx River for construction of one new deep foundation pier and one new abutment with less than ¼ acre of wetland permanently impacted.	As design advances, MTA and the design-builder will revise the impacts to wetlands, if necessary, and address compensatory mitigation in the permitting process. MTA will evaluate measures to minimize harm in accordance with state and federal regulations and guidance.	MTA / Design-Build Contractor	Final Design
NR 3	Limited in-water work at the Bronx River for construction of one new deep foundation pier and one new abutment with less than ¼ acre of wetland permanently impacted.	Permits for in-water bridge work adjacent to the existing Bronx River Bridge and construction of other project elements—including permit(s) from U.S. Army Corps of Engineers, a U.S. Coast Guard permit, and a water quality certificate from NYSDEC—could be required and would be pursued during the final design phase.	U.S. Army Corps of Engineers / U.S. Coast Guard / NYSDEC / Design-Build Contractor with MTA oversight	Final Design



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NR 4	Threatened or endangered water species found seasonally within one mile of Project Area.	The design-build contractor will minimize in-water disturbance by including the installation of cofferdams around the work area, avoid in-water work between January 1 and June 30, and ensure waterborne equipment floats at all stages of the tide.	Design-Build Contractor with MTA oversight	Construction
<b>HISTORIC RESOURCES</b>				
HR 1	Rehabilitation of the NRHP-eligible Amtrak HGL (Northeast Corridor) bascule bridge over the Bronx River	The rehabilitation of the Bascule Bridge over the Bronx River will be undertaken in accordance with the Secretary of the Interior's Standards for Rehabilitation.  30%, 60%, 90% and 100% design drawings and specifications of the historic bridge rehabilitation construction activities will be reviewed and approved by SHPO.	SHPO / Design-Build Contractor with MTA oversight	Final Design
HR 2	Rehabilitation of the NRHP-eligible Amtrak HGL (Northeast Corridor) bascule bridge over the Bronx River	A construction monitoring plan, to be reviewed and approved by SHPO, will be implemented.	SHPO / Design-Build Contractor with MTA oversight	Construction
HR 3	Construction of a new Railroad Bridge over the Bronx River adjacent to NRHP-eligible Amtrak HGL (Northeast Corridor) bascule bridge over the Bronx River	Design of the New Railroad Bridge over the Bronx River at MP 11.40 will maximize compatibility with and minimize the obstruction of the historic bridge.  30%, 60%, 90% and 100% design drawings and specifications of the new bridge construction activities will be reviewed and approved by SHPO.	SHPO / Design-Build Contractor with MTA oversight	Final Design
HR 4	Construction of a new Railroad Bridge over the Bronx River adjacent to NRHP-eligible Amtrak HGL (Northeast Corridor) bascule bridge over the Bronx River	A construction monitoring plan, to be reviewed and approved by SHPO, will be implemented.  Consideration would be taken during the drilling and installation of the piers and the abutment of the new bridge so as not to damage the piers or abutment of the historic bridge.  During construction of the new bridge, there will be protective screens or temporary barricades used to prevent any spoils or new concrete from fouling the tracks or from hitting the truss. Safety precautions will be put in place to prevent any construction equipment (cranes, back hoes) from contacting the historic bridge.	SHPO / Design-Build Contractor with MTA oversight	Construction
HR 5	Construction at Parkchester -Van Nest Station adjacent to SHPO eligible Parkchester Apartment Complex. .	30%, 60%, 90%, and 100% design drawings of the new station facility will be submitted to SHPO for review and approval.	SHPO / Design-Build Contractor with MTA oversight	Final Design



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HR 6	Construction at Parkchester -Van Nest Station adjacent to SHPO eligible Parkchester Apartment Complex. .	All new construction at the Parkchester-Van Nest Station will be conducted in accordance with the Secretary of the Interior's Standards.  The new construction will be compatible in design and materials to the complex, as appropriate, to minimize the effects of the new station.	SHPO / Design-Build Contractor with MTA oversight	Final Design
HR 7	Construction at Parkchester -Van Nest Station adjacent to SHPO eligible Parkchester Apartment Complex. .	MTA's Arts & Design program will commission site-specific permanent artwork that responds to the community's character defining features and history.	MTA	Post Construction
HR 8	Construction of Van Nest AC Substation adjacent to SHPO eligible Parkchester Apartment Complex.	The Van Nest AC Substation façade will incorporate contextually sensitive design elements.	SHPO / Design-Build Contractor with MTA oversight	Final Design
HR 9	Expansion of the New Rochelle Yard	A construction monitoring plan will be implemented for the New Rochelle Yard expansion to protect the Kaufman Building during construction.	SHPO / Design-Build Contractor with MTA oversight	Construction
HR 10	Replacement or rehabilitation of recently designated Pelham Lane Pathway Bridge in Pelham Bay Park	If adverse effects to the Pelham Lane Pathway Bridge cannot be avoided, documentation of the bridge will be prepared in accordance with Historic American Engineering Record Standards and SHPO Documentation Guidelines (dated January 2019) prior to demolition.	SHPO / Design-Build Contractor with MTA oversight	Pre-Construction
HR 11	Replacement or rehabilitation of recently designated Pelham Lane Pathway Bridge in Pelham Bay Park	The stipulations of the Programmatic Agreement for the Proposed Project will be followed to guide the continuance of the Section 106 process through the design and construction phases and outline the conditions for resolution of adverse effects on historic architectural resources.	SHPO / Design-Build Contractor with MTA oversight	Final Design & Construction
HR 12	Stabilization and protection of Westchester Avenue Station of the New York Westchester, and Boston Railway	Design-builder will perform a structural assessment of the Westchester Avenue Station for review by MTA and Amtrak to determine if the structure poses a hazard for trains operating beneath and identify the potential for stabilization.	Design-Build Contractor / MTA / Amtrak	Final Design
<b>ARCHAEOLOGICAL RESOURCES</b>				
AR 1	Impact on potential archaeological resources in the Corridor beneath 22 inches of ballast in areas where tracks are at grade elevation	MTA, in consultation with FTA and SHPO, will develop an Unanticipated Discovery Plan that will be followed in the event that any unanticipated archaeological and / or human remains are encountered during construction of the Proposed Project.	FTA / SHPO / Design-Build Contractor with MTA oversight	Pre-Construction



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<b>SECTION 4(F) RESOURCES</b>				
4F 1	Rehabilitation or replacement of the N / SR-eligible Pelham Lane Pathway Bridge.	While the construction of Pelham Lane Pathway Bridge (within Pelham Bay Park) will temporarily affect (no more than 12 months) a small portion of the pathways located immediately adjacent to and below the bridge, one path under the Pelham Lane Pathway Bridge for the public will be maintained throughout construction. Therefore, golfers will continue to be able to access Split Rock Golf Course throughout the duration of construction. The design-build contractor will provide a safety plan that details the safety protocols (e.g., flaggers to ensure safe passage of park users during construction) to be in place during construction activities on the bridge for NYCDPR's review, comment and approval.	FTA / Design-Build Contractor with MTA oversight / NYCDPR	Pre-Construction / Construction
4F 2	Rehabilitation or replacement of the Pelham Lane Pathway Bridge.	The Pelham Lane Pathway Bridge will have a 13-foot minimum vertical clearance, the golf cart path will have a 12-foot minimum width, the bridle path will have a 12-foot minimum width and there will be a minimum 2-foot buffer between the golf cart and bridle paths. NYCDPR will review, comment, and approve the design as well as the aesthetics of the finish of the bridge and ensure that the clearance for the park users will not diminish park accessibility or safety of users (e.g., horses, pedestrians and golfers) crossing beneath the bridge.	Design-Build Contractor with MTA oversight / NYCDPR	Final Design
4F 3	Maintenance of signal equipment along railroad right-of-way, within Starlight Park Phase 2.	The access easement for maintenance of signal equipment in Starlight Park will contain provisions requiring Amtrak or MTA provide notification to NYCDPR when access is needed and repair or reimburse NYCDPR for any damage caused by Amtrak or MTA vehicles utilizing the easement areas. Vehicular access for maintenance of signal equipment using a shared path that is planned as part of Starlight Park Phase 2 will be limited (less than once per month) and of short duration. Vehicles will have a maximum gross weight rating of 10,000 pounds or less. Safety protocols will be implemented by Amtrak or MTA to ensure the protection of pedestrians and park users when park sites are accessed.	FTA / Design-Build Contractor with MTA oversight / Amtrak	Post-Construction



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4F 4	Drainage system and retaining wall at Starlight Park	The design-build contractor will be responsible for all New York State Department of Environmental Conservation approvals to changes to the drainage system at Starlight Park as a result of construction of PSA and will obtain NYCDPR final approval of the layout and design of the new drainage system and retaining wall. MTA will be responsible for removal of graffiti from the retaining wall as needed.	Design-Build Contractor with MTA oversight / NYCDPR	Final Design / Post-Construction
4F 5	Park alienation	For all permanent easements on park property, MTA will submit proposed New York State legislation bills for approval through the parkland alienation procedures.	MTA	Pre-Construction
4F 6	Use of property (Pelham Bay Park) that has previously received Land and Water Conservation Fund assistance.	MTA will coordinate with NYSOPRHP as design continues to understand the final real impacts to Pelham Bay Park (as a result of the Pelham Lane Pathway Bridge and catenary structures) and the potential need for mitigation. NYSOPRHP will coordinate with the National Park Service on behalf of NYCDPR, if a conversion is necessary.	MTA / NYSOPRHP / NYCDPR / NPS	Final Design
4F 7	Misuse of catenary structures	MTA will ensure that the catenary structures to be placed in Concrete Plant Park and Pelham Bay Park are designed to deter climbing and discourage any other potentially dangerous misuse of the structures. NYCDPR will review, comment and approve of catenary structures placed in park property.	MTA / Design-Build Contractor / NYCDPR	Final Design
<b>TRANSPORTATION</b>				
T 1	New vehicle trips associated with the Proposed Project.	Any potential capacity or service deficiencies that may result with the Proposed Project will be addressed by New York City Transit (NYCT) in its systemwide planning and programming of service improvements and modifications.	MTA / NYCT	Post-Construction
T 2	Based on results of the operations simulations, the Proposed Project would not result in any adverse impacts to operations of intercity passenger rail along the HGL or at PSNY	Consistent with existing operations planning practices on the NEC, MTA, in coordination with Amtrak, will perform operations analyses near construction completion to optimize Metro-North's service plan and to demonstrate no impact to intercity service. Should analyses find that planned operations of the Proposed Project would result in degradation to operational performance or resiliency of rail carriers operating in the affected territory, the service plan will be revised to eliminate any such effects.	MTA with Amtrak review	Post-Construction
T 3	Construction on on/off ramps at the clover leaf south of the proposed Co-op City Station (I-95 and Bronx and Pelham Parkway).	MTA and the design-build contractor will coordinate with NYSDOT regarding construction on the highway on/off ramps.	Design-Build Contractor / MTA	Construction





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<b>NOISE AND VIBRATION</b>				
NV 1	Increase in ambient noise levels by one to four decibels over existing levels along the HGL Corridor.	Based on the abatement evaluation, mitigation will include an installation of a noise barrier limited to the buildings east of Lurting Avenue, approximately 200 feet in length, which will reduce the number of severe impacts by 7 buildings (17 dwelling units).	Design-Build Contractor with MTA oversight	Final Design & Construction
NV 2	Increase in ambient noise levels by one to four decibels over existing levels along the HGL Corridor.	Due to space constraints, construction of noise barriers is not possible at all locations that experience severe impacts. The best practical and acoustically effective measure to minimize impacts will be to replace all existing windows on building facades that have visual exposure to the tracks with new soundproof windows with a Sound Transmission Classification rating of 40 or more. This proposed abatement measure will be subject to the property owners' approval. The proposed measures will provide a reasonable amount of noise control relief from daily Proposed Project operations. The details of these measures to minimize impacts will be fully developed as part of the final design for the Proposed Project.	Design-Build Contractor with MTA oversight	Final Design & Construction
NV 3	Vibration impacts at 40 buildings (84 dwelling units) along the HGL Corridor.	The projected vibration levels will be eliminated by installing under-rail pads and resilient fasters throughout the corridor as part of the track construction.	Design-Build Contractor with MTA oversight	Construction
<b>CONTAMINATED MATERIALS</b>				
CM 1	Presence of contaminated materials during construction at station areas and on HGL Corridor, caused by historic rail operations, spills, and historical site uses. Based on historical use of the proposed sites and neighboring properties, possible soil contaminants include polychlorinated biphenyls (PCBs), pesticides and herbicides, heavy metals, and petroleum constituents, including polycyclic aromatic hydrocarbons (PAHs). Groundwater contamination caused by petroleum products and chlorinated solvents is possible. Lead-based paint, asbestos-containing material, and mold could be present on existing structures (including bridges undergoing rehabilitation).	The results of the MTA subsurface investigation and any additional investigations conducted by the design-builder will be used to prepare a project-specific Hazard Materials Management Plan and site-specific Health and Safety Plan. These plans will be developed by the design-builder, with participation from FTA. If hazardous materials are encountered during construction, MTA will notify FTA immediately. MTA and the design-builder will provide FTA with anticipated next steps based on the approved plans and following guidance from NYSDEC. Work will not resume at the site until FTA responds and appropriate public notice requirements will be followed.	FTA / Design-Build Contractor with MTA oversight	Pre-Construction



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CM 2	Presence of contaminated materials during construction at station areas and on HGL Corridor, caused by historic rail operations, spills, and historical site uses. Overall, environmental contamination is anticipated to be low to moderate and no remediation should be necessary.	The design-builder will implement best practices (such as dust control, use of tarps for spoils storage areas, and community air monitoring for particulate matter and volatile organics) to minimize impacts to adjacent sites and surrounding neighborhoods.	Design-Build Contractor with MTA oversight	Construction
<b>CONSTRUCTION AND CONSTRUCTION IMPACTS</b>				
CI 1	Temporary effects (less than 24 months) due to construction along the railroad right-of-way and in areas adjacent to sections of the right-of-way where passenger stations, bridge construction and modification, and other project elements are proposed. Effects may include disruption of access to roads and staging areas, loss of parking, sidewalk closures, construction noise, dust, and vibration, and increased traffic.	MTA will require in its contract that the design-builder implement the following measures during construction to minimize potential effects to nearby communities from ongoing construction: <ul style="list-style-type: none"> <li>• Communication with Community</li> <li>• Community Safety and Quality of Life (onsite operations and safety management)</li> <li>• Environmental Performance (noise, vibration, air quality, and contaminated material control plans)</li> </ul>	Design-Build Contractor with MTA oversight	Construction
CI 2	Construction on the Bronx River Bridge near new Starlight Park pedestrian bridge	The design-build contractor will include protection for the new Starlight Park bridge and pedestrians on the bridge during rehabilitation of the bascule bridge and construction of the new Bronx River Bridge.	Design-Build Contractor with MTA oversight	Construction
CI 3	Work on Bronx River Bridge near Starlight Park features	The design-build contractor will coordinate with NYCDPR if any caissons for the new Bronx River Bridge are proposed near park retaining walls or other park features that will need protection during construction.	Design-Build Contractor with MTA oversight / NYCDPR	Pre-Construction
CI 4	In-water work as part of construction of new two-span bridge over the Bronx River	The design-build contractor will coordinate with NYCDPR and the Bronx River Alliance regarding in-water construction at the Bronx River Bridge to ensure there is no conflict with planned boating events.	Design-Build Contractor with MTA oversight / NYCDPR / Bronx River Alliance	Pre-Construction