HUDSON TUNNEL

DRAFT ENVIRONMENTAL IMPACT STATEMENT AND DRAFT SECTION 4(f) EVALUATION

APPENDIX 4

Analysis Framework

4-1: CEQR Technical Area Guide

U.S. Department of Transportation
Federal Railroad Administration

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CEQR Technical Area Guide

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CEQR Technical Area	CEQR Analysis Issues	Hudson Tunnel DEIS Chapter Location
Land Use, Zoning, and Public Policy		
Land Use	Effect of a project on land uses and development trends	6A. Land Use, Zoning, and Public Policy
Zoning and Public Policy	Project consistency with local zoning regulations and relevant public policies	6A. Land Use, Zoning, and Public Policy
Waterfront Revitalization Program	Project consistency with NYC Waterfront Revitalization Program policies	21. Coastal Zone Consistency
Socioeconomic Conditions		
Direct Residential Displacement	Effect of a project on socioeconomic character of an area due to direct displacement of residents	7. Socioeconomic Conditions
Direct Business Displacement	Effect of a project on socioeconomic character of an area or business conditions due to direct displacement of employees/businesses	7. Socioeconomic Conditions 6B: Property Acquisition
Indirect Residential Displacement	Effect of a project on housing trends/rents that may result in displacement of a vulnerable population	7. Socioeconomic Conditions
Indirect Business Displacement	Effect of a project on business conditions or trends that may make it difficult for certain businesses to remain in an area (including effects of introducing new retail concentration)	7. Socioeconomic Conditions
Adverse Effects on Specific Industries	Effect of a project on viability of a specific industry	7. Socioeconomic Conditions
Community Facilities and Services	Effect of a project on public facilities and delivery of services (schools, child care, libraries, police/fire services, health care facilities) due to direct displacement of facilities or introduction of significant new demand	6A. Land Use, Zoning, and Public Policy 18. Safety & Security (addresses police/fire services and issues) Nearly all impacts are construction period impacts. There would be no generation of new demand once the project is completed. No construction impacts to schools, child care, libraries, or health care facilities.
Open Space		
Indirect Effects	Effect of a project on open space due to demand by a new residential or worker population	There would be no new residential or worker demand from the Project once completed.
Direct Effects	Effect of a project due to temporary or permanent closure of open space resources; effects on usefulness of resources due to increased noise, air pollution, or shadows	8. Open Space and Recreational Resources
Shadows	Effect of project-generated shadows on open space resources, natural areas, or sunlight-sensitive historic resources	8. Open Space and Recreational Resources 9. Historic and Archaeological Resources 11. Natural Resources
Historic and Cultural Resources		
Architectural Resources	Effect of a project on designated, eligible, or potential architectural resources due to changes in historic setting or construction-related disturbances	9. Historic and Archaeological Resources

CEQR Technical Area	CEQR Analysis Issues	Hudson Tunnel DEIS Chapter Location
Historic and Cultural Resources (Continued)		
Archaeological Resources	Potential for a project to affect archaeological resources due to ground disturbance	9. Historic and Archaeological Resources
Urban Design and Visual Resources	Effect of a project on visual character of an area and pedestrian experience due to changes to streetscape or building form; potential for a project to obstruct publically accessible views of visual resources	10. Visual and Aesthetic Resources
Natural Resources	Potential project-related disturbances to aquatic resources, floodplains, wetlands, wildlife, and terrestrial ecological communities	11. Natural Resources
Hazardous Materials	Potential for a project to increase exposure of workers or the public to contaminants, e.g., asbestos, VOCs, PCBs	15. Geology and Soils 16. Contaminated Materials
Water and Sewer Infrastructure	Effect of a project on water supply system and wastewater conveyance and treatment infrastructure due to increased water demand, wastewater generation, or changes to stormwater management	17. Utilities and Energy (construction impacts related to relocation of facilities; no new users, water demand or wastewater generation during operation) 11. Natural Resources (addresses changes to stormwater management) 3. Construction Activities and Methods and 16. Contaminated Materials (address disposal of any contaminated stormwater or dewatering water encountered during construction)
Solid Waste and Sanitation Services	Effect of a project on solid waste management system due to increased waste generation and demand for collection and transportation services	(The Project would not generate any demand for solid waste or sanitation collection or transportation services during operation) 3. Construction Activities and Methods and 16. Contaminated Materials (address construction period Project-generated need for disposal of solid waste, tunnel spoils, etc. from construction activities)
Energy	Effect of a project on energy generation and delivery system due to increased demand	17. Utilities and Energy
Transportation		
Traffic	Effect of project-generated vehicle trips and roadway changes on roadway capacity and congestion	5A. Traffic and Pedestrians
Pedestrians	Effect of project-generated pedestrian trips and roadway changes on capacity of pedestrian elements (sidewalks and crosswalks)	5A. Traffic and Pedestrians
Parking	Effect of project-generated parking demand on off-site parking capacity	N/A (The Project would not generate new parking demand during operation)
Transit	Effect of a project on mass transit capacity and service (subway, bus, rail)	5B. Transportation Services

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Air Quality		
Stationary Source	Effect of project-related emissions from stationary sources, e.g., boiler stacks	13. Air Quality (no new operational emissions, see construction analysis in chapter)
Mobile Source	Effect of emissions from project-generated vehicular traffic	13. Air Quality (construction analysis, no new Project-generated emissions during operation)
Greenhouse Gas Emissions and Climate Change	Project-generated GHG emissions and consistency with GHG reduction policies; resilience of a project to sea level rise and climate change	14. Greenhouse Gas Emissions and Resilience
Noise		
Stationary Source	Effect of project-generated noise from stationary sources, e.g. mechanical equipment or manufacturing operations	12. Noise and Vibration (construction analysis and operational analysis)
Mobile Source	Effect of project-generated noise from autos, aircraft, or trains	12. Noise and Vibration (construction analysis and operational analysis)
Public Health	Cumulative effects of a project on public health due to effects on air quality, water quality, hazardous materials, or noise	19. Public Health and EMFs
Neighborhood Character	Cumulative effects of a project on the context and feel of a neighborhood due to effects on land use, socioeconomic conditions, open space, historic and cultural resources, urban design and visual resources, shadows, transportation, and noise	No dedicated chapter in this EIS; see discussions weaving in aspects of neighborhood character included in: 6A. Land Use, Zoning, and Public Policy 7. Socioeconomic Conditions 10. Visual and Aesthetic Resources 20. Indirect and Cumulative Effects
Construction		
Construction Means and Methods	Project construction schedule, phasing, methods, equipment, etc.	3. Construction Methods and Activities
Construction Impact Assessment	Effects of project-related construction activities in each technical area (e.g., hazardous materials, air quality, noise)	Various: construction-related assessments provided in each technical area chapter
Alternatives		
Project Alternatives	Summary of project alternatives considered, e.g., alternatives that reduce or eliminate environmental impacts	2. Project Alternatives and Description of the Preferred Alternative
Alternatives Impact Assessment	Effects of project alternatives in each technical area	Various: assessments of all project alternatives provided in each technical area chapter
Mitigation	Summary of mitigation measures to be implemented with a project	Various: project mitigation measures provided in each technical area chapter where relevant
Unavoidable Adverse Impacts	Summary of a project's unmitigated significant adverse environmental impacts	Various: adverse environmental effects presented in each technical area chapter where relevant
Growth-Inducing Aspects of the Proposed Project	Potential for a project to result in secondary impacts (i.e., effects of induced development or growth)	20. Indirect and Cumulative Effects
Irreversible and Irretrievable Commitments of Resources	Effects of a project's use of man-made and natural resources	23. Commitment of Resources