

11. Acronyms and Glossary of Terms

11.1. Acronyms and Abbreviations

ACM	Asbestos-containing Materials
ACS	American Community Survey
ADA	U.S. Americans with Disabilities Act
AIRS	US Aerometric Information Retrieval System
APA	Aquifer Protection Agency
APE	Area of Potential Effect
ATC	Automatic Train Control
BFE	Base Flood Elevation
BMP	Best Management Practice
C&D	Conservation and Development
CAD	Confined aquatic disposal
CCMA	Connecticut Coastal Management Act
CCTV	Closed Circuit Television
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CEPA	Connecticut Environmental Policy Act
CEQ	Council on Environmental Quality
CESQG	Conditionally Exempt Small Quantity Generator
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CIRCA	Connecticut Institute for Resilience and Climate Adaptation
CJL	Coastal Jurisdiction Line
CLOMR	Conditional Letter of Map Revision

CM/GC	Construction Manager/General Contractor
CO	Carbon Monoxide
CP	Control Point
CPE	Corridor Preservation Exemption
CPSC	Contaminated or Potentially Contaminated Sites
CPUs	Central Processing Units
CSX	CSX Transportation
CT	Connecticut
CTA	Connecticut Transfer Act
CTDEEP	Connecticut Department of Energy and Environmental Protection
CTDOT	Connecticut Department of Transportation
CTSHPO	Connecticut State Historic Preservation Office
CWCS	Comprehensive Wildlife Conservation Strategy
cy	Cubic Yards
dB	Decibel
DO	Dissolved Oxygen
DPS	Distinct Population Segment
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIE	Environmental Impact Evaluation
EJ	Environmental Justice
EO	Executive Order
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FDA	US Food and Drug Administration
FEMA	Federal Emergency Management Agency

FFY	Federal Fiscal Year
FHWA	Federal Highway Administration
FINDS	Facility Index System
FIRM	Flood Insurance Rate Map
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GIS	Geographic Information System
HAER	Historic American Engineering Record
HTL	High Tide Line
HUD	Housing and Urban Development
I-95	Interstate Route 95
IMAX	Image Maximum
IPaC	Information for Planning and Conservation
IPCC	Intergovernmental Panel on Climate Change
ISSC	Interstate Shellfish Sanitation Conference
LEP	Limited English Proficiency
LGM	Locational Guide Map
LIS	Long Island Sound
LRTP	Long Range Transportation Plan
LUST	Leaking Underground Storage Tanks
LWCF	U.S. Land and Water Conservation Fund Act
LWDS	Leachate and Wastewater Discharge Site
MAGIC	Map and Geographic Information Center
MBTA	Migratory Bird Treaty Act
MCC	Motor Control Centers
MGP	Manufactured Gas Plant

MHW	Mean High Water
MMPA	Marine Mammal Protection Act
MNR	Metro North Railroad
MOA	Memorandum of Agreement
MOW	Maintenance-of-Way
Mph	Miles per hour
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MTA	Metropolitan Transit Authority
NACCS	North Atlantic Coast Comprehensive Study
NAVD88	North American Vertical Datum of 1988
NAAQS	National Ambient Air Quality Standards
NDDB	Natural Diversity Data Base
NEC	Northeast Corridor
NEFMC	New England Fisheries Management Commission
NEPA	National Environmental Policy Act
NERO	Northeast Regional Office (of NMFS)
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFRAP	No Further Remedial Action Planned
NHL	New Haven Line
NHML	New Haven Main Line
NJTPA	New Jersey Transportation Planning Authority
NMFS	National Marine Fisheries Service
NHMC	Norwalk Harbor Management Commission
NO ₂	Nitrogen Dioxide

NOAA	National Oceanic and Atmospheric Administration
NPA	Norwalk Parking Authority
NPDES	National Pollutant Discharge Elimination System
NR	National Register of Historic Places
NRCS	Natural Resource Conservation Service
NRVT	Norwalk River Valley Trail
NSSP	National Shellfish Sanitation Program
NTD	Norwalk Transit District
NWI	National Wetland Inventory
O ₃	Ozone
OCS	Overhead Contact System
OEP	Office of Environmental Planning
OOC	Operation Control Center
OLISP	Office of Long Island Sound Programs
OPM	Office of Policy and Management
OSHA	Occupational Safety and Health Administration
OTP	On Time Performance
P&W	Providence and Worcester Railroad Company
PAH	Polycyclic Aromatic Hydrocarbons
Pb	Lead
PLC	Programmable Logic Controller
PM _{2.5}	Particulate Matter, 2.5-micron
PM ₁₀	Particulate Matter, 10-micron
PSE	Preliminary Site Evaluations
PTC	Positive Train Control
RCRA	Resource Conservation and Recovery Act

RCSA	Regulations of Connecticut State Agencies
ROW	Right-Of-Way
RPDD	Reed Putnam Design District – Subarea D
RPDE	Reed Putnam Design District – Subarea E
RSR	Remediation Standard Regulation
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SAV	Submerged Aquatic Vegetation
SDADB	Site Discovery and Assessment Database
SEH	Significant Environment Hazard
sf	square feet
SHPO	State Historic Preservation Office
SHWS	State Hazardous Waste Sites
SLE	Shore Line East
SLOSH	Sea, Lake, and Overland Surges from Hurricanes
SNEW	South Norwalk Electric and Water
SO ₂	Sulfur Dioxide
SOGR	State of Good Repair
SoNo	South Norwalk
SQG	Small Quantity Generator
SR	State Register of Historic Places
SSI	Subsurface Site Investigation
SSO	State-managed Safety Oversight
STAT	Short Term Action Team
STIP	Statewide TIP
SVOCs	Semi-volatile Organic Compounds
SWPPP	Stormwater Pollution Prevention Plan

SWRPA	South Western Regional Planning Agency
SWRMPO	South Western Region Metropolitan Planning Organization
THPO	Tribal Historic Preservation Office
TIP	Transportation Improvement Plan
TMDL	Total Maximum Daily Load
TOD	Transit-oriented Development
TPH	Total Petroleum Hydrocarbon
TRC	Transportation Reinvention Commission
TSGP	Transit Security Grant Program
TTCI	Transportation Technology Center
TTD	Third Taxing District
TVSS	Transient Voltage Surge Suppression
UCONN	University of Connecticut
US 1	United States Route 1
US 7	United States Route 7
USACE	United States Army Corps of Engineers
USC	United States Code
USCG	United States Coast Guard
USDOT	U.S. Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tanks
VCP	Voluntary Cleanup Priority
VOCs	Volatile Organic Compounds
WCCOG	Western Connecticut Council of Governments

WPCA	Water Pollution Control Authority
WSDD	Washington Street Design District
WWTP	Wastewater Treatment Plant

11.2. Glossary of Terms

Abutment: A structure built to support the end of a bridge.

Adverse effect: An adverse effect (under 36 CFR 800.5(a)(1)) is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

Alignment: The arrangement or positioning of railroad tracks.

Amtrak: America's national rail operator; also known as the National Railroad Passenger Corporation.

Approach: The part of the bridge that carries traffic from the land to the main parts of the bridge.

Approach span: The span connecting an abutment with the main span of a bridge.

Archaeological Site: Following National Register Bulletin No. 36, "Guidelines for Evaluating and Registering Archaeological Properties" (www.cr.nps.gov/nr/publications/bulletins/arch/), an *archaeological site* is "a location that contains the physical evidence of past human behavior that allows for its interpretation." The term *archaeological site* refers to those that are eligible for or are listed on the National Register (historic properties) as well as those that do not qualify for the National Register.

Area of Potential Effect: As defined in Section 106 of the National Historic Preservation Act, the geographic area within which a proposed project may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.

AREMA (American Railway Engineering and Maintenance-of-Way Association): The organization that publishes recommended practices for the design, construction and maintenance of railway infrastructure.

Ballast deck bridge: A railroad bridge with a solid "U" shaped cross section, which supports a railroad track and the gravel or stone base supporting the track, with the bridge deck being closed to the roadway or waterway below.

Barge: A flat-bottomed boat for carrying freight, typically on canals and rivers, either under its own power or towed by another vessel.

Bascule bridge: A movable bridge with a counterweight that continuously balances a bridge span as it is raised or lowered. One end of the span pivots upward about a horizontal axis to allow waterway traffic to pass beneath the bridge.

Bathymetric data: Information about the depths and shapes of underwater terrain.

Bedrock: Solid rock beneath soil or other loose deposits.

Benthic resources: Anything associated with or occurring at the lowest level of a body of water.

Bobtail bridge: Another name for a swing span-type movable bridge that is comprised of two unequal span lengths.

Camber: A positive, upward curve built into a bridge beam or truss that compensates for some of the vertical load in order to provide a level traveling surface when trains cross a bridge.

Categorical exclusion (CE): A determination that a project or action does not involve significant impact to the environment.

Catenary: An overhead wire that carries power to trains.

Center-pivot: The pier or point on which a swing span bridge turns.

Channel hydraulics: The analysis of the water flow of a channel or river.

Cofferdam: A watertight enclosure constructed in waterlogged soil and pumped dry so that construction can take place within a waterway.

Communications-Based Train Control: A subway signaling system that uses telecommunications between train and track equipment to manage and control train traffic and individual trains on the line; the system improves safety and increases capacity by allowing trains to follow each other more closely.

Conductors/Cables: Provides overhead electric power transmission.

Connecticut Department of Energy and Environmental Protection: State agency whose primary function is the conserving, improving and protecting natural resources and the environment within Connecticut, as well as providing cheaper, cleaner and more reliable energy.

Connecticut Environmental Policy Act (CEPA): Identifies and evaluates the impacts of proposed State actions that could have the potential to significantly affect the environment.

Connecticut State Historic Preservation Officer (CTSHPO): The governmental program that manages historic preservation for the state of Connecticut, working to identify, register, and protect the buildings, sites, structures, districts and objects that comprise Connecticut's cultural heritage.

Conceptual Engineering: Design phase that describes the proposed system in terms of integrated ideas about purpose, functionality, behavior, and aesthetics.

Construction Engineering: Responsible for the design, management and oversight of projects within the construction phase.

Construction Manager-General Contractor: Plans, coordinates, budgets, and supervises construction projects from development to completion.

Construction Phasing: Separating a project into manageable sections with different completion dates where the stages of design and construction may overlap.

Constructive Use: A constructive use of a Section 4(f) resource (23 CFR 774.15) occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.

Control House: A small facility placed on or adjacent to a movable bridge in which the switches, signals and personnel controlling the opening and closing of a movable span are located.

Critical Habitat: Specific geographic areas, whether occupied by listed species or not, that are determined to be essential for the conservation and management of listed species, and that have been formally described in the Federal Register.

CTDOT: Connecticut Department of Transportation, the state agency responsible for providing a safe and efficient intermodal transportation network.

De Minimis Impact: Under the Section 4(f) regulations, a *de minimis* impact is one that, taking into account avoidance, minimization, and mitigation, results in no adverse effects to the activities, features, or attributes qualifying a park, recreation area, or historic site for Section 4(f) protection. A 2005 revision to the Section 4(f) regulations¹ allow U.S. DOT agencies to approve transportation projects once U.S. DOT determines that the use will involve a “*de minimis*” impact.

Deck Girder Rolling Lift Bascule: A movable span (leaf) that rotates on a horizontal axis to raise one end vertically. As the span rotates open, it also translates horizontally in the direction of the movement. A large counterweight is used to offset the weight of the raised leaf.

Deck Truss Swing Span: A type of movable bridge having truss supports underneath the railroad tracks; the span swings or pivots about a vertical axis while opening and closing.

Direct Fixation: A type of railroad track structure in which the rail is anchored directly to the bridge structure, eliminating the use of railroad ties.

Double-track Bridge: A bridge carrying two tracks.

Drilled Shaft Foundations: A type of bridge foundation in which concrete is placed within a hole drilled into the ground, providing deep foundations for the bridge and retaining walls. This program will employ a highly specialized technique to install the drilled shafts in hard rock.

Easements: A right to cross or otherwise use someone else's land for a specified public purpose.

Ecosystem: Dynamic and interrelating complex of plant and animal communities and their associated nonliving (e.g. physical and chemical) environment.

Eligible for National Register: If the agency official determines any of the National Register criteria are met and the SHPO/THPO agrees, the property shall be considered eligible for the National Register for Section 106 purposes.

Endangered: The classification provided to an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

¹ Section 6009(a) of SAFETEA-LU (the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users).

Endangered Species Act (ESA): Law designed for the purpose of protecting and recovering endangered or threatened species and the ecosystems upon which they depend.

Environmental Assessment: A level of environmental documentation prepared to detail impacts to the natural and man-made environment through study and analysis.

Environmental Permitting: Agreements that regulate activities that may impact a state's natural resources and environment.

Essential Fish Habitat: The surroundings required for aquatic species to spawn, breed, feed or grow to maturity, which are high priorities for conservation, management and research.

Estuary: A partially enclosed body of water along the coast where freshwater from rivers and streams meets and mixes with salt water from the ocean.

Fatigue Life: The amount of time that a steel structure or part of structure can handle repeated use before showing signs of wear or stress.

Federal Aviation Administration (FAA): A federal agency that provides a safe and efficient aerospace system by regulating civil and military aviation and U.S. commercial space transportation.

Federal Clean Water Act (CWA): Provides regulating standards for clean water quality in the waters of the United States.

Federal Navigation Channel: The limits of a defined channel or area where it is safe to operate a watercraft.

Federal Transit Administration (FTA): A federal agency that provides technical and financial assistance to local public transit systems.

Final Design: The last phase of a design project in which preparations of calculations, plans, and specifications for construction are made

Fixed Approach Spans: Portion of the bridge that carries traffic to the main part of the bridge and does not move to accommodate navigation. These spans are located outside the limits of the navigation channel.

Fixed Bridge: A bridge whose height above a waterway is set to accommodate navigation traffic without moving.

Floodplain: The part of the ground surface inundated with water on a recurring basis, usually associated with the one percent recurrence interval (100-year) flow.

Floor beams: Components of the bridge structure used to support the deck that span between and are supported by two parallel girders or trusses.

Fluvial: Produced by the action of a stream.

General Contractor: Responsible for the overall coordination of all aspects of a construction project.

Geometry: The three dimensional layout and measurements associated with the design and construction of railroad tracks.

Geotechnical Screening: Investigations of the ground, soil and rock used for identifying foundation types for proposed structures.

Girder: A main supporting beam that carries a load along its length by resisting bending.

Habitat: The location where a particular taxon of plant or animal lives and its surroundings (both living and nonliving) and includes the presence of a group of particular environmental conditions surrounding an organism including air, water, soil, mineral elements, moisture, temperature, and topography.

High Tower: A tall pier or frame supporting the cable of a suspension bridge.

Historic Property: As defined in 36 CFR 800.16(1), any prehistoric or historic district, site, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior.

Intertidal Habitat: An environment located in the narrow band between land and sea that is above water at low tide and underwater at high tide.

Life Cycle Costs: Upon being placed into service, the accumulation of all expenditures required for inspecting and maintaining the bridge or other asset during its projected life.

Listed Species: A species, subspecies, or distinct vertebrate population segment that has been added to the Federal lists of Endangered and Threatened Wildlife and Plants as they appear in sections 17.11 and 17.12 of Title 50 of the Code of Federal Regulations (50 CFR 17.11 and 17.12).

Marine Traffic: Water-going vessels traveling along a seaway, riverway, harbor or other navigable waterway.

Mashantucket Pequot Tribal Nation: Eastern Woodland people whose traditional homeland is Southeastern Connecticut.

Memorandum of Understanding (MOU): An agreement between two or more parties, indicating an intended common line of action.

Metro-North Railroad (MTA): The agency responsible for commuter railroad operations in New York and Connecticut.

Mitigation: Measures taken to minimize adverse environmental impacts.

Mohegan Tribal Nation: A sovereign, federally-recognized Indian Nation, with its own constitution and government.

Movable Span: A bridge across a navigable waterway that can be temporarily moved to allow for the passage of boats and barges.

Mud line: The seabed which determines channel depth.

National Environmental Policy Act (NEPA): Federal regulations outlining policies and procedures for documenting environmental impacts of a proposed action.

National Register of Historic Places: A federal listing of historic resources protected under the National Historic Preservation Act of 1966.

National Oceanic and Atmospheric Administration (NOAA): Federal agency that studies climate, weather, oceans and coasts.

Nautical Mile: A unit of distance set at 1,852 meters (about 6,076 feet).

Navigable Waters: Waters that provide a channel for commerce and transportation of people and goods. At the Walk Bridge project site, “navigable waters” means Long Island Sound, any cove, bay or inlet of Long Island Sound, and that portion of any tributary, river or stream that empties into Long Island Sound upstream to the first permanent obstruction to navigation for watercraft from Long Island Sound.

Navigation Study: An evaluation conducted for the purpose of determining the best plan for improving the movement of vessels through a waterway.

New Haven Line Railroad: Rail line operated by Metro-North railroad, consisting of the New Haven Main Line and the New Canaan, Danbury, and Waterbury Branch lines.

No-Build: The design alternative that serves as the baseline or benchmark by which to compare “Build” design alternatives and which assumes no action or only routine maintenance or improvements occur.

Northeast Corridor (NEC): The rail line running from Boston, Massachusetts to Washington, D.C. with branches serving other metropolitan areas. The Northeast Corridor is owned primarily by Amtrak and is used by Amtrak's Acela Express and Northeast Regional services in addition to several commuter and freight rail services. The Northeast Corridor is the busiest passenger rail line in the United States by ridership and service frequency.

Norwalk Harbor Management Commission: The board responsible for evaluating issues, making recommendations, and providing support for the vitality and quality of life associated with Norwalk Harbor and Long Island Sound.

Norwalk Historical Commission: Oversees historical properties and archives in Norwalk, Connecticut.

Norwalk Tribal Nation: One of the recognized Indian Nations in the United States, located in the state of Connecticut.

Office of Long Island Sound: An office of the Connecticut Department of Energy and Environmental Protection that oversees programs that impact the Long Island Sound and related coastal land and water.

Open-Deck Bridge: A railroad bridge constructed so that the railroad track and ties are directly connected to the bridge structure resulting in spaces between the railroad ties that are open to the road or stream being crossed beneath.

Open-Deck Through-Truss Lift Span: A truss that carries its traffic through the interior of the structure with cross-bracing between the parallel top and bottom chords. The deck is open and railroad track is connected directly to the bridge structure resulting in spaces that are open to the road or stream below. A lift span allows a portion of the bridge to move up and down to allow vessels to pass underneath.

Operational Redundancy: The ability to maintain train service on a limited number of tracks following an event that would have otherwise rendered all tracks inoperable.

Overhead Counterweights: Large weights used to offset the mass of a movable span and are located above the railroad tracks.

Pier: As an intermediate support used between bridge spans, the bridge pier is the main support for a bridge upon which the superstructure rests.

Pier Placement: Locating bridge piers that determines the length of new spans while clearing existing bridge piers, existing spans and other structural considerations.

Pile: A long steel or concrete column driven deep into the ground to form part of a bridge foundation or substructure.

Pit Pier: A pier type where a pit is dug below a bridge's existing footings then filled with concrete, brickwork or other materials. The narrow final gap between the new material and the existing footing is filled with dry packing materials or steel wedges that are rammed into the gap.

Pivot Pier: The central support of a swing span around which the movable span rotates.

Positive Train Control: Technology designed to automatically stop or slow a train before a collision occurs by sharing information on a train's location and safe passage via on board computer systems.

Preliminary Design: The first phase of the design process in which conceptual design is further refined.

Profiles: The cross sectional shape of a railway or roadway.

Rehabilitation: Method of correcting the deficiency of a deteriorated condition.

Reliability: The ability of a system or component to function under specified conditions for a determined amount of time.

Rest Piers: The bridge substructure supporting the end of a bascule span that does not have the counterweight.

Retaining Wall: A wall that holds back earth so that the width of a railroad embankment supporting tracks can be minimized.

Right-of-Way: Land dedicated to the transportation facility.

Rivers and Harbors Act: Federal legislation that requires approval for the construction for any dam, dike, bridge, or causeway in a navigable waterway of the U.S.

Ruderal: Growing where the natural vegetation cover has been disturbed by humans.

Run-Around Structure/Temporary Offset: A construction staging strategy to shift traffic around the primary project location, resulting in no interruptions to traffic during construction.

Section 106 National Historic Preservation Act: Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties and

afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The procedures in this part define how federal agencies meet these statutory responsibilities.

Section 4(f): Under Section 4(f) of the U.S. DOT Act of 1966 (49 U.S.C. §303 and 23 U.S.C. §138), U.S. DOT agencies cannot approve the use of publicly owned parks, recreation areas, wildlife and waterfowl refuges, or historic sites, unless there is no feasible or practicable avoidance alternative to the use of the land and the project includes all possible means to minimize harm. These areas must be avoided if at all possible or impacts must be mitigated or determined to have a *de minimus*, or minor impact.

Service Life: Expected lifetime for acceptable period of use.

Single-Leaf Rolling Lift Bascule: A movable span having one portion that rotates about a horizontal axis that raises one end vertically to provide clearance for boat traffic. As the span rotates open, it also translates horizontally in the direction of the movement. A large counterweight is used to offset the weight of the moving span.

Span-Driven Vertical Lift Bridge: A movable deck bridge in which the deck may be raised vertically by synchronized machinery placed directly on the span.

Span Length: The horizontal distance between two support structures.

State Register of Historic Places: A state's list of historically significant properties. Not all state registered properties are listed on the National Register.

Steel Plate Girder: A type of bridge span configured in an I-shape in which the elements are welded together, consisting of top and bottom horizontal elements (flanges) and a single vertical element (web).

Stringers: A beam aligned with the length of a span which directly supports the railroad track and deck.

Structure Type: The type and combination of members connected together that form a wide range of structural possibilities.

Substructure: The portion of a bridge structure, including abutments and piers, that is the foundation supporting the superstructure and transferring bridge loads to the ground.

Subsurface: Earth material underground.

Sump Pump: A pump used to remove liquid or waste that has accumulated in a pit pier.

Superelevation: Tilting of the railroad tracks through a horizontal curve.

Superstructure: The portion of a bridge structure which is above the level of the foundation which carries the traffic load and passes that load to the substructure.

Swing Bridge: A movable deck bridge that opens by rotating about a vertical axis.

System Resiliency: The ability to return the bridge to use, either partially or completely, in a relatively short period of time in the aftermath of a compromising event.

Tidal Wetlands: Wetlands that border or lie beneath tidal waters that are protected from direct wave action.

Track Spacing: The distance between multiple rails on a railway.

Technically Feasible: The ability to implement a proposed action is possible from an engineering design and construction standpoint.

Threatened Species: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range as defined in the Endangered Species Act.

Through Girder Trunnion Bascule: A movable span that rotates about a fixed point (the trunnion) to raise one end of the span vertically to provide clearance for boat traffic. A large counterweight is used to offset the weight of the moving portion of the span.

Through Truss Rolling Lift Bascule: A movable span type consisting of a truss superstructure that rotates about a horizontal axis, raising one end vertically to provide clearance for boat traffic. As the span rotates open, it also translates horizontally in the direction of the movement. A large counterweight is used to offset the weight of the moving span.

Through Truss Span Drive Vertical Lift: A movable span type consisting of a truss superstructure in which both ends of the span are simultaneously raised upward by synchronized machinery placed directly on the span. Towers at each end of the movable span guide the movement of the bridge and while also supporting large counterweights that offset the weight of the bridge.

Through Truss Tower Drive Vertical Lift: A movable span type consisting of a truss superstructure in which both ends of the span are simultaneously raised vertically and whose movement is guided by towers located at each end of the span. Large counterweights are placed at the top of each tower to offset the weight of the movable span. The top of the towers also support the bridge operating machinery.

Traffic Study: A detailed analysis of a transportation system supported by data collection.

Trestle: A bridge structure composed of bents or towers and supporting stringers or girders forming the floor system.

Trusses: A structure composed of slender members joined together at their end points.

Under-Deck Counterweights: Large weights used to offset the mass of a movable bridge and are located beneath the railroad track and deck of the bridge.

U.S. Army Corps of Engineers (USACE): A Federal agency under the Department of Defense involved with a range of public engineering services in peace and war.

U.S. Coast Guard (USCG): One of the five branches of United States' armed forces protecting interests in U.S. ports, inland waterways, along coasts, and on international waters. As a part of the Department of Homeland Security, the USCG has regulatory oversight of permitting the construction and maintenance of bridges crossing navigable waterways.

Use: A Section 4(f) "use" occurs when: (1) land from a Section 4(f) property is permanently incorporated into a transportation facility either by purchase or easement acquisition; or (2) there is a temporary occupancy of land from a Section 4(f) property that is adverse in terms of the statute's preservation

purpose as determined by the criteria set forth in 23 CFR §774.13(d); or (3) land from a Section 4(f) property is not incorporated into the project but the proximity effects of the project are so severe that the activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired (constructive use of the property as determined by the criteria set forth in 23 CFR §774.15).

Utilities: Public mains for the purpose of electricity distribution, telecommunications, fiber optics, water mains, wastewater pipes, and the like.

Utility Relocations: The transfer of existing facilities to new locations that avoid conflict with a proposed construction project.

Vertical Lift Bridge: A type of movable span in which both ends of the span are simultaneously raised and lowered while being guided by large towers at both ends of the span.

Water-dependent use: A recreational, commercial, or industrial use or facility which requires direct access to, or location in, marine or tidal waters and which cannot be located inland. Some examples of water-dependent uses are marinas, boatyards, marine transportation facilities, and general public access.

Water Depth: The distance between the water surface and the underlying riverbed or seabed.

Waterway: A river, canal or other route for travel by water.