

## GLOSSARY OF TECHNICAL TERMS

Term	Definition
Alluvium	Loose, unconsolidated soil or sediments that are eroded or reshaped by water
Area of Potential Effect (APE)	“...the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.” 36 CFR Part 800.16(d)
At-Grade	Surface level
Capital Costs	Costs incurred on the purchase of land, buildings, construction and equipment to be used in bringing a project to a commercially operable status
Cut and Cover	Construction method that involves “cutting” the area to be excavated and “covering” it to maintain traffic flow while excavation continues below
dBA	A-weighted decibels which account for human perception of sound and unwanted noise
<i>de minimis</i>	The requirements of Section 4(f) would be considered satisfied if it is determined that a transportation project would have only a <i>de minimis</i> impact on the Section 4(f) resource. <i>De minimis</i> impact is defined in 23 CFR 774.17 as follows: <ul style="list-style-type: none"> <li>■ For parks, recreation areas, and wildlife and waterfowl refuges, a <i>de minimis</i> impact is one that would not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f); and</li> <li>■ For historic sites, <i>de minimis</i> impact means that the FTA has determined, in accordance with 36 CFR Part 800, that no historic property is affected by the project or the project would have “no adverse effect” on the property in question</li> </ul>
Dewatering	Removal or draining of groundwater or surface water from a site by pumping or evaporation
Environmental Clearance	The National Environmental Policy Act (NEPA) of 1969 established protocol by which agencies are required to evaluate project impacts on the social and natural environment

Term	Definition
Earth Pressure Balance (EPB)	EPB is a mechanized tunneling method in which the excavated material is used to support the tunnel face while it is being conditioned using foams and other additives to make it more fluid. The spoil is admitted into the tunnel boring machine (TBM) via a screw conveyor. Pressure on the tunnel face is controlled through the speed of the screw conveyor removing material from the pressure chamber and the hydraulic pressure used to push the TBM forward. In this way, the material excavated and removed is “balanced.”
Façade	The front of a building; any face of a building given special architectural treatment
Fault	A fracture or zone of fractures along which there has been displacement of the sides relative to one another, parallel to the fracture
Fault Line	A commonly used term that is synonymous with the surface trace of a fault
Fault Rupture	A break in the ground along the fault line during an earthquake
Fault Strand	An individual fault of a set of closely spaced parallel or subparallel faults of a fault system
Footwall	Of the two sides of a non-vertical fault, the side below the fault plane
Geologic Epoch	A timescale based on rock layering
Ground-Borne Noise (GBN)	A low-frequency rumble related to operational vibration
Hanging Wall	Of the two sides of a fault, the side above the fault plane
Lateral Fault	A fault that slips in such a way that the two sides move with a predominantly lateral motion (with respect to each other). The two kinds of lateral slip faults are right-lateral and left-lateral
Laydown Areas	Laydown or staging areas are designated areas where vehicles, supplies, and construction equipment are positioned for access and use to a construction site
Ldn	Average day-night noise level, cumulative 24-hour day-night noise level
Leq	Equivalent, continuous sound level, measure of total noise energy of all sound during a time period
Leq(h)	Hourly equivalent sound level, Leq for a one-hour period
Level of Service (LOS)	A qualitative measure to describe road conditions that reflect the relative ease of traffic flow on a scale of A to F, with free-flow being rated LOS-A and congested conditions as LOS-F
Liquefaction	A process by which loosely packed sandy or silty materials saturated with water are shaken hard enough to lose strength and stiffness
Magnitude	A general term for a measure of the strength or energy of an earthquake as determined from seismographic information

Term	Definition
Maximum Design Earthquake (MDE)	Level of ground shaking hazard that has 4-percent probability of exceedance in 100 years
Methane Gas Risk Zone	An area in the Fairfax District designated as a risk zone in 1985 following a naturally occurring methane gas fire at a Ross “Dress for Less” store. The methane gas fire resulted in an investigation by a special City of Los Angeles Task Force. Conclusions from this investigation led to Congressional prohibition on federal funding for subway construction within this designated Methane Gas Risk Zone Public Law 99-190). Due to advances in new tunnel construction methods, Congress repealed the Federal prohibition on subway funding in December 2007
Mw	Earthquake magnitude measurement used instead of Richter scale
Non-Dispersive Infrared Photometry (NDIR)	A tool used to determine concentration of gas
Operating Design Earthquake (ODEO)	Level of ground shaking hazard that has 50-percent probability of exceedance in 100 years
Peak Ground Acceleration (PGA)	A fraction of the acceleration of gravity used to express ground motion induced by a seismic event
Peak Particle Velocity (PPV)	An expression of ground-borne vibration
Reverse Fault	A fault in which the displacement is predominantly vertical, and the hanging wall is moved upward with respect to the footwall. Some amount of reverse slip is often seen in predominantly lateral faults
Root Mean Squared (RMS)	A formula used to calculate ground-borne vibration from transit vehicles
Scarp	A roughly linear, cliff-like slope or face that breaks the continuity of a surface into distinct levels
Scoping	An early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action
Seismic Moment	A quantity used by earthquake seismologists to measure the size of an earthquake.
Surface Rupture	The breakage of ground along the surface trace of a fault caused by the intersection of the fault surface area ruptured in an earthquake with the Earth's surface
Transit-Oriented Development (TOD)	Compact, medium- to high density mixed-use development within walking distance of transit facilities



Term	Definition
Transverse Ranges	The mountains formed by compression associated with the Big Bend of the San Andreas fault zone —primarily the San Gabriel and San Bernardino Mountains. They are called transverse because they stretch east-west, unlike the north-south-trending Sierra Nevada, the Peninsular Ranges, and the mountains of the Basin and Range Province
Tunnel Boring Machine (TBM)	A machine used to excavate tunnels with the ability to penetrate through a variety of soil and hard rock
Vibration Decibels (VdB)	An expression of ground-borne vibration