

*A*ppendix F Glossary of Terms

Appendix F Glossary of Terms

A

Accessibility

(1) The ability of vehicles and facilities to accommodate the disabled and comply with the Americans with Disabilities Act (ADA).

(2) A measure of the ability or ease of all persons to travel among various origins and destinations.

Action Alternative

A project alternative that involves a major capital investment.

Advisory Council on Historic Preservation (ACHP)

An independent federal agency that provides a forum for influencing federal policy, programs, and activities as they affect historic and archaeological resources in communities and on public lands nationwide.

Adverse

A negative or unfavorable condition.

Air Pollution

Is a general term that refers to one or more chemical substances that degrade the quality of the atmosphere.

Alignment

The horizontal and vertical location of a roadway, railroad, transit route, or other linear transportation facility.

Alternatives

The set of transportation improvements or projects that are compared in the EIS to determine their effectiveness in serving as potential solutions to a transportation problem. Along with the set of “Action” Alternatives, there is a “No Action Alternative,” which evaluates the effects of not building a project. Alternatives may consist of different configurations, alignments, type of access control, or transportation modes and strategies.

Aquifer

A layer of permeable rock, sand, or gravel through which ground water flows, containing enough water to supply wells and springs.

<u>Area of Potential Effect (APE)</u>	The geographic area within which a transportation project may cause changes in the character of, or use of, historic properties. The APE is influenced by the scale and nature of the project, and there may be different kinds of effects caused by the undertaking.
<u>At Grade</u>	On the ground, at surface level.
<u>At-Grade Crossing</u>	Same as a “grade crossing.” A rail crossing with roadways or streets on the same level as the tracks, resulting in a level intersection of both modes. See grade separation.
<u>Avoidance</u>	The act of avoiding or keeping away from impacting on something or someone.
B	
<u>Bus</u>	Rubber-tired vehicles operating on fixed routes and schedules on roadways. Buses are powered by diesel, gasoline, battery, or alternative fuel engines contained within the vehicle.
C	
<u>Capital Costs</u>	The one-time expenses incurred to design and build a transit system.
<u>Carbon Monoxide (CO)</u>	Is a colorless and odorless gas, which is a product of incomplete combustion. CO is absorbed by the lungs and reacts with hemoglobin to reduce the oxygen carrying capacity of the blood. At low concentrations, CO has been shown to aggravate the symptoms of cardiovascular disease. It can cause headaches and nausea, and at sustained high concentration levels, can lead to coma and death. CO concentrations tend to be highest in localized areas because they are most affected by local traffic congestion, since motor vehicles are a major source of CO emissions.
<u>Clean Air Act (CAA)</u>	Federal legislation that sets air quality standards. Sometimes cited as CAAA, Clean Air Act and Amendments of 1990.
<u>Connectivity</u>	Connecting various transportation modes and services to minimize wait times between transfers and reduce overall travel time.
<u>Construction Impact</u>	Temporary impact that would occur while a project is under construction.

Constructive Use Impact

An impact adversely impacting activities on or enjoyment of a property without directly acquiring the property or any portion of the property. A new noisy project adjacent to a previously quiet outdoor theater would be an example of a constructive use impact.

Cultural Resources

Archaeological and historic resources eligible for or listed on the National Register of Historic Places. Cultural resources include buildings, sites, districts, structures, or objects having historical, architectural, archaeological, cultural, or scientific importance.

Cumulative Impact

Impact that “results from incremental consequences of an action when added to other past and reasonably foreseeable future actions.” The cumulative effects of an action may be undetectable when viewed in the individual context of direct and indirect impacts but can add to other changes and eventually lead to a measurable environmental change. Potential cumulative effects on the environment must be assessed as required by the National Environmental Policy Act (NEPA).

D

de minimis

Of insufficient significance. A *de minimis* contribution means that the environmental conditions would essentially be the same whether or not a proposed project is implemented. Used to evaluate impacts to parks under a 4(f) evaluation.

Dedicated Guideway

A right-of-way that is solely for use of transit vehicles and is not occupied by any other type of vehicle or by pedestrians. Dedicated guideway may be either grade-separated or protected by a fence or substantial permanent barrier.

Demand Forecasting

A technique of estimating the number and travel times of potential users of a system.

Design Speed

The speed used for design and relationship of the physical features of a highway or rail that influence vehicle operation. It is the maximum safe speed that can be maintained over a specified section of highway or rail when conditions are favorable (i.e., clear, dry, daylight).

Design Year

The year for which the facility is designed. The transit facility should be able to handle the traffic forecasted for that year, which is generally 20 to 25 years in the future.

Determination of Eligibility

The process of assembling documentation to render professional evaluation of the historical significance of a property. Departments of Transportation, in consultation with the State Historic Preservation Office, apply the National Register of Historic Places criteria when deciding matters of historical significance.

Displacement

Results in converting current residential or commercial uses to transportation use.

Dust Control

Controlling dust from exposed soils by minimizing the time soils are exposed, temporarily mulching, seeding or covering exposed soils, and/or spraying water on exposed soils.

Dwell Time

The time, in seconds, that a transit vehicle spends at each stop waiting for passengers to alight and board.

EEasement

A temporary or permanent right to use the land of another for a specific purpose sometimes referred to as a “deed restriction.” Easements may be purchased from the property owner or donated by the owner.

Effects

Effects” and “impacts” are synonymous. Effects include ecological, aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial. Effects include (1) direct effects that are caused by the action and occur at the same time and place and (2) indirect effects that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

“

Eminent Domain

Authority of an agency to acquire property at fair market value for public purposes. Also known as condemnation.

Endangered

An organism of very limited numbers that may be subject to extinction and is protected by law under the Endangered Species Act.

Envelope

Definition of the vertical and horizontal space required for both the transit vehicle and/or the guideway. Also called operating envelope.

Environmental Impact Statement

A public document that a federal agency prepares under NEPA to document the expected impacts of a development or action on the surrounding natural and human environment. The document must detail efforts to avoid, minimize, or mitigate any adverse impacts.

Environmental Justice (EJ)

Presidential Executive Order 12898 requires federal agencies to ensure that their actions (or actions they oversee) do not disproportionately discriminate against or impact minority populations and low income populations.

F**Fare Box Revenue**

Value of cash, tickets, tokens, and pass receipts given by passengers as payment for rides; excludes charter revenue.

Feasible

Feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

FEMA

Federal Emergency Management Agency. FEMA has ten regional offices and two area offices. Each region serves several states, and regional staff work directly with the states to help plan for disasters, develop mitigation programs, and meet needs when major disasters occur.

Financially Constrained

A term used to describe the financial requirement that all projects must have an identified funding source.

FIRM

Flood Insurance Rate Maps. Maps produced by the Federal Emergency Management Agency (FEMA) to determine the locations of flood risks and hazards.

Full Acquisition

Purchase of all land ownership rights of a property. Also known as a “fee simple” acquisition.

Floodplain (100-year)

The area adjacent to a stream that contains a flood event that has a 1 percent probability of occurring in any given year.

G**Geographic Information System (GIS)**

A computer system capable of storing and manipulating spatial data.

<u>Grade</u>	<p>(1) Refers to a rise in elevation within a specified distance. For example, a one-percent grade is a one-foot or 0.305 meter rise in elevation in 100 feet or 30.5 meters of horizontal distance.</p> <p>(2) The rate of upward or downward slope of a roadway, expressed as a percent.</p> <p>(3) “At grade” refers to a transportation facility built at ground level in a level intersection of both modes. See grade separation.</p>
<u>Grade Separated Crossings</u>	Facilities such as overpasses, underpasses, skywalks, or tunnels that allow pedestrians or vehicles to cross paths at different levels; also referred to as grade separations.
<u>Grade Separation</u>	The crossing of transportation rights-of-way that are separated vertically and for which there is no shared common intersection. A transit right-of-way may be fully grade-separated or partially grade-separated.
<u>Groundwater</u>	Subsurface water and underground streams that can be collected with wells or that flow naturally to the earth’s surface through springs.
<u>Groundwater Recharge</u>	A hydraulic process where water moves downward from surface water to groundwater.
H	
<u>Hazardous Materials</u>	Material, often waste, that poses a threat to human health and/or the environment.
<u>Headway</u>	The time interval between transit vehicles operating in the same direction along a fixed route.
I	
<u>Impacts</u>	See Effects.
<u>Independent Utility</u>	A project is said to have independent utility if it will provide functional transportation improvements that can stand alone and serve a major purpose, even if no other improvements are made in the region.
<u>Indirect Effects (Secondary Impacts)</u>	Impacts on the environment resulting from the primary impact of the proposed action but occurring later in time or farther removed in distance, although still reasonably foreseeable. Potential indirect or secondary and cumulative effects on the environment must be assessed as required by the National Environmental Policy Act (NEPA).

Intelligent Transportation Systems (ITS)

Computer-based technology applications designed to increase capacity, to move traffic and transit more safely and efficiently, and to supply information to travelers. Examples include global positioning systems for locating vehicles and traffic signal priority for giving preferential green time to transit vehicles at intersections.

Intermodal

The ability to connect, and the connections between, different modes of transportation.

K

Kiss-and-Ride

A drive-through area, sometimes with short-term parking, to allow passengers to be dropped off or picked up at a transit station, with or without a kiss.

L

Land and Water Conservation Fund (LWCF) Act 1965

Regulates the use of parklands that were purchased or developed with LWCF funds.

Level of Service (LOS)

Level of service (LOS) is a measure of the quality of operations of a roadway. It looks at speed, traffic volume and road geometry. LOS A represents free flow conditions and LOS F represents a breakdown of vehicular flow. Typically, in urbanized areas LOS D or better is considered adequate.

Limits of Disturbance

The horizontal boundary where soil will be exposed during construction activities. The limits of disturbance includes, but is not limited to, the limits of excavation, borrow areas, storage areas, staging areas, areas to be cleared and grubbed, and roadways.

Locally Preferred Alternative (LPA)

A project alternative chosen by a sponsoring agency as a result of the federal project development process. It defines the alternative that is deemed best suited to meet the region's transportation goals, is responsive to community concerns and input and has been examined and declared superior to the other alternatives that are identified and studied in relation to its social, economic and environmental impacts.

Logical Termini

Rational endpoint for consideration of transportation improvements and for review of environmental impacts.

Low-Income Household

A low-income household is one where the median household income is below the Department of Health and Human Services poverty guidelines.

Low-Income Population

Any readily identifiable group of low-income persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed federal transportation program, policy, or activity.

M

Map Overlays

Quantitative and qualitative analysis using layering of maps showing land use and resource context from various time periods.

Minimization

Measures taken to reduce the severity of adverse impacts.

Minority

A person who is (1) Black (having origins in any of the black racial groups of Africa); (2) Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); (3) Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or (4) American Indian and Alaskan Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

Minority Population

Any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed federal transportation program, policy, or activity.

Mitigation

Measures taken to alleviate adverse impacts that remain after minimization.

Mixed-Use Development

Development with multiple categories of land use typically including residential, commercial, retail, and entertainment. Mixed-use areas generally have higher population densities and are pedestrian friendly.

Mobil Source Air Toxics (MSAT)

Are a subset of the 188 air toxics defined by the Clean Air Act. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., locomotives, airplanes), area sources (e.g., dry cleaners) and stationary sources (e.g., factories or refineries).

<u>Mode</u>	Refers to a specific form of transportation (auto, bus, LRT, heavy rail, pedestrian, bicycle, etc.).
<u>Model</u>	An analytical tool (often mathematical) used by transportation planners to assist in making forecasts of land use, economic activity, travel activity and their effects on the quality of resources such as land, air, and water.
<u>Multimodal</u>	Having or involving several modes of transportation.
N	
<u>National Environmental Policy Act (NEPA)</u>	The federal law that requires every federal agency to evaluate the effect of its proposed actions on the natural and man-made environment by preparing an Environmental Assessment or Environmental Impact Statement.
<u>National Register Eligible</u>	Cultural resources eligible for inclusion on the National Register of Historic Places. Eligible resources receive the same protection as listed resources.
<u>National Register of Historic Places (NRHP)</u>	A federal listing of historic resources protected under the National Historic Preservation Act of 1966. Properties include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.
<u>New Starts</u>	Discretionary federal funding program for the construction of new fixed guideway systems or extensions of existing fixed guideway systems, based on cost effectiveness, alternatives analysis results and the degree of local financial commitment.
<u>No Action Alternative</u>	The alternative describing projected future conditions of an area in the absence of a proposed project. It serves as a benchmark to which the impacts of the build alternatives can be compared. As part of this alternative, financially constrained and programmed projects are considered together with existing conditions.
<u>Noise</u>	Unwanted sound.
O	
<u>Off-Board Fare Collection</u>	Collection of transit fares off the vehicle, typically at a station. Boarding time is greatly reduced with off-board fare collection. When off-board fare collection is used, verification of fare payment is often made by random inspection onboard the vehicles.

Off-Peak Period	Periods of the day when travel activity is lower.
Operating and Maintenance Costs (O&M Costs)	All costs involved with running a transit system, including labor for operations and for vehicle and fixed facility maintenance, fuel and electric power, spare parts and other supplies, insurance premiums and claims payments, direct supervision, and general and administrative expenses.
Operating Plan	For transit, an operating plan details characteristics such as running times, frequency, required number of vehicles, changes in frequency throughout the day, and assumptions pertaining to stations.
Origin-Destination Study	A method to determine where trips are coming from and going to, or where they desire to travel.
Ozone (O₃)	Is a strong oxidizer and a pulmonary irritant that affects the respiratory mucous membranes, other lung tissues, and respiratory functions. Exposure to ozone can impair the ability to perform physical exercise, can result in symptoms such as tightness in the chest, coughing, and wheezing, and can ultimately result in asthma, bronchitis, and emphysema. Motor vehicles do not emit ozone directly. Emissions of volatile organic compounds (VOC) and nitrogen oxides (NO _x), which are the precursor pollutants to ozone formation, react in the presence of sunlight to form ozone in the atmosphere. These reactions occur over periods of hours to days during atmospheric mixing and transport downwind. Accordingly, ozone and its precursors VOC and NO _x are regulated at the regional level as part of the Delaware Valley Regional Planning Commission's (DVRPC) transportation plan.
P	
Park-and-Ride Facility	A parking lot to which passengers drive their cars, leave them for the day, and either board transit vehicles or carpool.
Partial Acquisition	Purchase of a portion of a property. A partial acquisition could include fee simple or easement acquisitions.

Particulate Matter (PM_{2.5})

Is made up of small solid particles and liquid droplets. PM₁₀ refers to particulate matter with an aerodynamic diameter of 10 microns and smaller, and PM_{2.5} refers to particulate matter with an aerodynamic diameter of 2.5 microns and smaller. Particulates enter the body by way of the respiratory system. Particulates over 10 microns in size are captured in the nose and throat and are readily expelled from the body. Particles smaller than 10 microns, and especially particles smaller than 2.5 microns, can reach the air ducts (bronchi) and the air sacs (alveoli). Particulates, especially PM_{2.5}, have been associated with increased incidence of respiratory diseases such as asthma, bronchitis, and emphysema; cardiopulmonary disease; and cancer. The majority of PM emissions from mobile sources are attributed to diesel vehicles.

Peak (Peak Period, Rush Hours)

The period during which the maximum amount of travel occurs. It may be specified as the morning (a.m.) or afternoon or evening (p.m.) peak.

Performance Measures

Indicators of how well the transportation system is performing with regard to such things as average speed, reliability of travel, and accident rates. Used as feedback in the decision-making process.

Preliminary Engineering

At the preliminary engineering phase the design is approximately 30 percent complete. The deliverables at the 30 percent submittal includes contract drawings, specifications, design calculations and a preliminary cost estimate.

Public Hearing

A formal meeting held to receive public comment on proposed action.

Public Meeting

An informal meeting held to present information about the proposed action and to discuss it with the public.

Purpose and Need Statement

A project purpose is a broad statement of the overall objective to be achieved by a proposed action. Need is a more detailed explanation of the specific transportation problems that exist or are expected to occur in the future. It is the foundation to determine if alternatives meet the needs in the area.

QQueue

A line of vehicles stopped at an intersection, merge or diverge point.

R

<u>Ridership</u>	The number of rides taken by people using a public transportation system in a given time period.
<u>Root Mean Square (RMS)</u>	Average vibration amplitude
<u>(Public) Right-of-Way (ROW)</u>	The area over which a legal right of passage exists; land used for public purposes in association with the construction or provision of transportation projects or other linear infrastructure and the associated facilities.

S

<u>Scoping</u>	This is the first step in the NEPA process that determines the range of proposed actions, alternatives, and impacts to be discussed in a DEIS. The required scoping process provides agencies and the public opportunity to comment. Scoping is used to encourage cooperation and early resolutions of potential conflicts, to improve decisions, and to reduce paperwork and delay.
<u>Section 106</u>	The section of the National Historic Preservation Act that requires federal agencies to consider the potential effects of proposed federal action on any known or potential historic, architectural, or archaeological resources and to consult with the SHPO.
<u>Section 4(f)</u>	Section 4(f) of the US Department of Transportation Act of 1966 includes a national policy to make special effort to preserve the natural beauty of the countryside, public parks and recreation lands, wildlife and waterfowl refuges, and significant historic sites. Use of these lands for a transportation project will be permitted only when it has been determined that there is no feasible and prudent alternative and the project includes all possible planning to minimize harm to the property resulting from such use.
<u>SHPO (State Historic Preservation Office)</u>	The office of the State Historic Preservation Officer, a state official in each state that is responsible under the National Historic Preservation Act of 1966 to review potential impacts to cultural resources by federal actions and to supervise the mitigation of adverse impacts.
<u>Shuttle Service</u>	Local bus service that moves passengers to collection points for bus or rail service.
<u>Soil Erosion and Sediment Control</u>	To reduce the uncontrolled movement of soils.

Stakeholders

Individuals and organizations involved in, or affected by, the transportation planning process, including federal/state/local officials, MPOs, transit operators, freight companies, shippers, and the general public.

State Implementation Plan (SIP)

The SIP is a state-adopted plan required for compliance with the Clean Air Act for regions that are not in attainment of the National Ambient Air Quality Standards. In the case of the King of Prussia/Valley Forge area, the DVRPC is responsible for developing a Transportation Improvement Program for the area that conforms to the SIP, which means that it does not create new violations of the Standards or make existing violations worse in the future.

Stormwater Management (SWM)

Physical design features such as ponds, bioretention, or drainage swales that retain or direct stormwater run-off in a manner that controls discharge volumes and/or water quality.

TTerminal Station

The bus or rail station where a route or line begins and ends.

Traffic Analysis Zone (TAZ)

A geographic area typically ranging in size from a city block to a one-square-mile section (or larger) used in computer models that identify changes in traffic flow based on estimated land use changes, population growth, employment growth, and other factors.

Transfer

The portion of a trip between two connecting transit routes.

Transportation Center

A station in a multi-destination transit system where passengers may conveniently transfer among trunk lines, local feeder routes, or modes. Also referred to as intermodal transfer facilities, transit centers, stations.

Transit Dependent Population

Generally those without their own means of transportation (e.g., zero-car households, children, low-income groups, some elderly, and those who are unable to operate a vehicle due to a physical disability).

Transit Oriented Development (TOD)

A term used for urban development that encompasses a direct and planned access to transit facilities.

Transit Zone

Communities within a one-half mile radius of transit facilities.

Transportation System User Benefit

A measurement of a project's value. The measurement divides the cost (including capital, and operations and maintenance) by the travel time savings of all users of the transit system (including existing and new riders). This measure is part of the FTA New Starts evaluations.

Travel Demand Forecast

A projection for travel demand on future or modified transportation system alternatives using existing or projected land use, socioeconomic, and transportation services data.

Travel Time

The average time required to travel between two points, including delays at intersections, but not including terminal or waiting time.

Trends Analysis

Used to identify effects occurring over time and to identify the future context of land use and environmental resources of interest

U

Uniform Relocation and Real Property Acquisitions Policies Act

Grants Management Requirements and State laws that establish the process through which SEPTA may acquire real property through a negotiated purchase or through condemnation.

V

Viewshed

An area visible from a specific vantage point.

W

Wetlands

As defined by the U.S. Army Corps of Engineers, areas that are inundated or saturated by surface water or groundwater sufficiently to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and similar areas and are subject to protection under Executive Order 11990 and Section 404 of the Clean Water Act.