# **Appendix B – Glossary of Terms**

#### <u>A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z</u>

**2L2W** – two lane road, one lane going in each of two directions.

#### Α

AASHTO – American Association of State Highway and Transportation Officials is a standards setting body which publishes specifications, test protocols and guidelines which are used in highway design and construction throughout the United States. Despite its name, the association represents not only highways but air, rail, water, and public transportation as well. The American Association of State Highway Officials (AASHO) was founded on December 12, 1914. Its name was changed to American Association of State Highway and Transportation Officials on November 13, 1973.

**ACCELERATION LANE** – a connecting lane leading from a ramp to a freeway and designed to enable the motorist to merge into freeway traffic at highway speed.

ACCESS – the ability to reach or connect to another mode of transportation from an existing mode of transportation or an individual property.

**AGGREGATE BASE COURSE (ABC)** – crushed stone used as a part of the roadway base to support pavement.

**ANCHORED PCB** – PCB designed to accommodate mounting bolts to secure the barrier to the roadway.

**ANNUAL AVERAGE DAILY TRAFFIC (AADT)** – the total volume of traffic on a highway segment for one year divided by the number of days in the year.

**AREA OF CONCERN** – an object or roadside condition that may warrant safety treatment.

**ADVANCE WARNING SIGN (AWS)** - A work zone sign that is located in advance or at the end of a work zone.

# B

**BARRICADE** – a device which provides a visual indicator of hazardous location or desired path a motorist should take. It is not intended to contain or redirect an errant vehicle.

BARRICADE MOUNTED SIGN - A sign mounted on the front face of a barricade.

**BARRIER** – a device which provides a physical limitation through which a vehicle would not normally pass. It is intended to contain or redirect an errant vehicle.

BASE COURSE – The part of the pavement structure between the surface course (or intermediate course, if recommended) and the subgrade.

#### C

**CADD** – Computer-Aided Drafting & Design software that is used of computer technology for the design of objects, real or virtual.

CAP - A load bearing cover which temporarily closes the top of a drainage structures until the appropriate time.

**CAPACITY** – a transportation facility's ability to accommodate a moving stream of people or vehicles in a given time period.

**CATEGORICAL EXCLUSION (CE)** – a classification given to federal aid projects or actions, which do not individually or cumulatively have a significant impact on the environment. CE do not require extensive levels of environmental documentation.

**CENTERLINE** – The longitudinal mid-point of all travel lanes (Surveyed stations are normally on the centerline of travel lanes or median).

**CLEARANCE** – lateral distance from edge of traveled way to a roadside object or feature.

**CLEAR ZONE** – the total roadside border area, starting at the edge of the traveled way, available for safe use by errant vehicles. This area may consist of a shoulder, a recoverable slope, a non-recoverable slope, and/or a clear run-out area. The desired width is dependent upon the traffic volumes and speeds and on the roadside geometry.

**CRASH CUSHION** – a device that prevents an errant vehicle from impacting fixed objects by gradually decelerating the vehicle to a safe stop or by redirecting the vehicle away from the obstacle.

**CRASHWORTHY** – A feature that has been proven acceptable for use under specified conditions either through crash testing or in-service performance.

**CROSS SECTION** – a vertical section of the road showing the different elevations and layers. Generated to calculate earthwork (cut and fill) for a proposed section of roadway. Also, used to show the spatial relationship between the maintained traffic pattern and construction operations.

#### D

**DECELERATION LANE** – The auxiliary lane leading from a highway to a ramp and designed to enable the motorist to decelerate from highway speed to safely stop at the end of a ramp.

**DEFLECTION** – The distance barrier moves (lateral displacement) when impacted.

**DESIGN FILES** – a Microstation CADD file. Electronic file that shows a plan view of the existing features, proposed construction, and location of traffic.

**DESIGN HOUR VOLUME (DHV)** – the 30<sup>th</sup> highest hourly volume of the future year chosen for design. The design volume represents the "load" that highway must accommodate. It is one factor in determining the required number of lanes and other geometric features. The DHV is normally determined by multiplying it times a design hour volume factor, generally a percentage from 8% - 12%.

**DESIGN SPEED** – a selected speed used to determine the various geometric design features of the roadway. The assumed design speed should be a logical one with respect to the topography, anticipated operating speed, the adjacent land use, and the functional classification of highway.

**DETENTION** - The temporary storage of excess storm water.

**DETOUR** – an alternate route utilizing onsite and/or offsite facilities when provided by the plans, contract, or as directed by the Engineer to facilitate highway construction.

**DIRECTIONAL FACTOR (D)** – a factor used to determine the one-way traffic volume. It is multiplied by the ADT.

**DRAINAGE** - A natural or artificial means of intercepting and removing surface or subsurface water (usually by gravity) from the roadways and roadsides.

**DRAINAGE PCB** – PCB designed with a slot on the bottom to allow for rainwater drainage.

**DROP-OFF** - the difference in elevation between existing pavement or terrain and the lowest elevation created by construction operations.

**DYNAMIC SIGN** - A type of sign that allows the message portrayed on the sign face to change, i.e. Portable Changeable Message Boards or Dynamic Message Boards.

# E

**EDGE OF PAVEMENT - (EOP)** - the longitudinal joint where the roadway joins the shoulder, or curb and gutter line.

**EDGE OF SHOULDER - (EOS)** - the longitudinal edge of the shoulder away from the roadway at which a shoulder break occurs transitioning to the side slope.

**EDGE OF TRAVELWAY - (EOT)** - the longitudinal edge of the travelway used by traffic, normally defined by pavement marking edgeline or channelizing devices.

**EDGE OF TRAVEL LANE - (EOL)** - the longitudinal edge of a travel lane used by traffic, normally defined by pavement marking lines or channelizing devices. The edge of a travel lane may be at the same location as the edge of the travelway or pavement, or abutting to other lanes within the travelway.

**EGRESS** – the act of leaving.

**ENTRANCE RAMP** – The portion of a ramp that, in the flow of traffic, the motorist is encouraged to accelerate in order to merge with highway traffic.

**ENVIRONMENTAL ASSESSMENT** – a NEPA (National Environmental Policy Act) document that evaluates the environmental effects of a project. Often followed by a FONSI. If there are no significant impacts, the assessments, the assessment is followed by an EIS.

**ENVIRONMENT DOCUMENT** – general term used throughout DOT to refer to any of the NEPA required documents.

**ENVIRONMENTAL IMPACT ASSESSMENT** – analytical process that systematically examines the possible environmental consequences of the implementation of projects, programs and policies.

**ENVIRONMENTAL FEATURES MAP** – map of a project area showing known Human and Natural Environmental features often using information from various sources including GIS, aerial photography, etc.

**EROSION** – wearing away of the land by running water, rainfall, wind, ice or other geological agents, including such process as detachment, entrainment, suspension, transportation and mass movement. Geologically, erosion is defined as a process that slowly shapes hillsides, allowing the formation of soil cover from weathering of rocks and from alluvial and colluvial deposits. Erosion is often intensified by land-clearing human activities related to farming, resident and industrial development and it has as effect increasing run-offs, decline of arable layers, siltation in lakes, lagoons and oceans.

**EXIT RAMP** – The portion of a ramp that, in the flow of traffic, the motorist is encouraged to decelerate in order to stop at the intersection of another roadway.

EXPRESSWAY – A multi-lane, two directional highway with partial control of access

#### F

**FONSI (Finding of No Significant Impact)** – environmental document for proposed projects where it has been determined through the circulation of an Environmental Assessment that a project will not have a significant impact on the environment. A Finding of No Significant Impact is the decision document for an Environmental Assessment.

FHWA – Federal Highway Administration is a major agency of the U.S. Department of Transportation (DOT). As a cabinet-level organization of the Executive Branch of the U.S. Government, the DOT is led by a presidential appointee-the Secretary of Transportation. The top-level official at FHWA is the Administrator, who reports directly to the Secretary of Transportation. FHWA is headquartered in Washington, DC, with field offices in every State, the District of Columbia, and Puerto Rico.

**FLAGGER PROGRAM** - program to assess the resultant user cost derived from a flagging operation along a two-lane, two-way facility.

**FLAGGING OPERATION** - providing the use of competent and properly equipped personnel at locations and times for such periods as necessary for the control and protection of vehicular and pedestrian traffic during construction.

FLARE RATE - Rate of diversion of barrier from traveled way, e.g., 12:1.

**FOUR-LANE, DIVIDED HIGHWAY** – Any highway or expressway that has two lanes going in each of two directions separated by a median

FREEWAY – A multi-lane, two directional highway with controlled access.

# G

**GRADE POINT** – The point where the proposed grade is referenced or tied to the typical section.

GORE AREA – In the case of an exit ramp, the part of a roadway at which the ramp and the highway become two separate roadways or the last place the motorist must decide if he/she will exit the highway or continue. In the case of an entrance ramp, the part of a roadway at which the ramp and the highway become one roadway or the place the motorist must start merging with traffic.

**GREEN SHEET** - a summary of project environmental commitments with responsible units identified. Green Sheets provide a quick reference for special project commitments on standalone green page(s).

#### Н

HABITAT – place where an organism or population (human, animal, plant, micro-organism) lives.

**HEARING MAP** – a map, usually of the selected alternative, presented to the Public at a Public Hearing on a project.

**IMPACT ANGLE** – The angle at which the vehicle strikes the barrier.

**IMPACT SEVERITY** – The force at which the vehicle impacts the barrier.

**INGRESS** – the act of entering.

IN-HOUSE – describes work performed by NCDOT staff.

**INTERAGENCY TEAM** – an interdisciplinary work group composed of individuals representing a number of government agencies who participate in the development of transportation projects.

**INTERMEDIATE CONTRACT TIME** – the number of hours or calendar days inclusive between the date of availability and the completion date, as set forth in the special provisions, including authorized extensions to the intermediate completion time or date.

**INTERMEDIATE COURSE** - The part of the pavement structure between the surface course and the base course (not used in all cases).

**INTERMEDIATE-TERM STATIONARY** - work that occupies a location more than one daylight period up to three (3) days, or nighttime work more than one (1) hour.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS) – advanced traffic operations and communications technologies that increase traffic flow on existing facilities, improve safety, and provide better and more accurate traveler information.

# L

**LAW ENFORCEMENT** - The governmental department charged with the regulation and control of the affairs of a community, now chiefly the department established to maintain order, enforce the law, and prevent and detect crime.

LAYER – A pavement structure design consisting of a lift or lifts of pavement types.

**LENGTH OF NEED** – Total length of a longitudinal barrier needed to shield an Area of Concern.

**LEVEL OF SERVICE (LOS)** – a system to evaluate congestion on a roadway – similar to a report card. LOS A would indicate no congestion while LOS D indicates severe congestion that could easily lead to a breakdown conditions.

LIFT – A single or series of variable depth applications of pavement types within a layer (pavement structure design).

LIMITED SERVICE CONTRACT – an "as-needed basis" contract established for a maximum dollar amount for professional or specialized services to be performed during a specified contract period, generally not to exceed three years. When a task is identified, a scope of services, schedule and total compensation are negotiated with the firm for the performance of an individual assignment of professional or specialized service, as defined by the Agreement. The scope of services, schedule and compensation for each individual assignment are documented in a Notice to Proceed. The Department may elect to utilize the maximum amount of the agreement during the contract period, or may elect not to negotiate with the firm for any services during the contract period.

**LINK** – the method to referring from one document to another.

LIQUIDATED DAMAGES - the sum of money in the amount stipulated in the special provisions that is charged against the contractor for each calendar day, each hour, or portion thereof that work described in the special provisions remains uncompleted after the expiration date, intermediate completion date, or the intermediate completion time shown in the special provisions, not as penalty, but as liquidated damages.

**LOCAL AGENCY** – includes municipal, county, other state government.

LONG RANGE TRANSPORTATION PLAN (LRTP) — a plan with a 20 year minimum planning horizon that must be updated every three to five years and is only required for Metropolitan Planning Organization (MPO). It incorporates all modes of transportation, including transit, bicycle, pedestrian, rail, aviation, ports and ferries. The plan may be viewed as a layering of fiscally constrained plans with each layer equating to a separate, but integrated, mode of transportation. Therefore, only projects that can reasonably be expected to be funded within the planning period are included in the LRTP.

LONG-TERM STATIONARY - work that occupies a location more than three (3) days.

**LONGITUDINAL BARRIER** – Traffic barrier oriented parallel or nearly parallel to the roadway. Beam guardrail, cable barrier, bridge rail, and concrete barrier are longitudinal barriers.

L- LINE – main line alignment chain designation within a set of roadway design plans.

#### M

MUTCD (Manual on Uniform Traffic Control Devices) - defines the standards used by road managers nationwide to install and maintain traffic control devices on all streets and highways. The MUTCD is published by the Federal Highway Administration (FHWA) under 23 Code of Federal Regulations (CFR), Part 655, Subpart F.

MEDIAN – the portion of divided highway separating the traveled ways for traffic in opposite directions.

MICROSTATION – is a full-featured 2D and 3D CAD program for DOS, Windows, Mac and Unix workstations from Bentley Systems, Inc. Created in 1984, MicroStation is a high-end package used worldwide in environments where many architectural and engineering designers work on large, complex projects.

MILESTONE – used to document significant events or completion of phases of work in a project.

MILLING – The removal of existing pavement to lower the vertical elevation and/or to improve the riding surface.

MITIGATION – to moderate the impact a project has on the environment.

**MOBILITY** – the ability to travel safely and unimpeded along single or linked transportation facilities.

**MODE OF TRANSPORTATION** – methods of moving people or goods; such as private vehicles, transit (bus, express bus, rail), biking, walking.

MORATORIUM – a temporary ban or halt to a specific activity. For NCDOT projects, a moratorium usually refers to a defined period of time (i.e., "season" or "window") during which specific construction activities are not allowed in order to protect sensitive animal species from disturbance.

**MSE WALL** – A mechanically stabilized earth wall constructed by various methods to hold back a fill section.

MULTI-LANE, UNDIVIDED – Any roadway that has more than one lane going in each of two directions.

#### N

NATIONAL HIGHWAY SYSTEM (NHS) – the Interstate Highway System as well as other roads important to the nation's economy, defense, and mobility; developed by the US Department of Transportation in cooperation with the states, local officials, and metropolitan planning organizations. Includes the Interstate system and other routes identified as being of particular importance to local governments.

**NATURAL RESOURCES** – natural assets (raw materials) occurring in nature that can be used for economic production or consumption.

**NCDOT** – North Carolina Department of Transportation is responsible for building, repairing, and operating highway, bridges, and other modes of transportation, including ferries in the U.S. state of North Carolina.

NCHRP REPORT 350 – National Cooperative Highway Research Program (NCHRP) Report 350, "Recommended Procedures for the Safety Performance Evaluation of Highway Features". FHWA policy requires that devices used on the National Highway System must be successfully tested in accordance with the guidelines contained in the report.

NCHRP 350 TEST LEVEL 2 AND TEST LEVEL 3 – NCHRP Report 350 test level 2 (TL-2) and test level (TL-3) require successful tests of a 1,800 lb. car impacting a barrier at an angle of 20 degrees and a 4,400 lb. pickup truck impacting a barrier at an angle of 25 degrees at speeds of 45 mph and 60 mph, respectively.

NCHRP 350 TEST LEVEL 4 – NCHRP Report 350 test level 4 (TL-4) requires a successful test of a 17,650 lb. truck impacting a barrier at an angle of 15 degrees at a speed of 50 mph.

NCMIN – the North Carolina Multimodal Investment Network (NCMIN) is a tool used to clarify all the components, facilities, and modes of North Carolina's transportation system. Components of the network are typically classified on the basis of how each contributes to serving a particular type of transportation movement. Some facilities serve Statewide movements, while others are Regional in terms of the service they provide, while still others are Subregional (localized). This classification also associates the increasing level of state (NCDOT) or local interest in various facilities. All transportation facilities, regardless of ownership and mode, are included in the Multimodal Investment Network. Each facility is classified into one of three tiers (groups): Statewide, Regional, or Subregional. Each tier has distinct features that define how facilities function, the type of travel they serve, and other measure like connectivity and usage. Statewide Tier facilities serve long-distance trips, connect regional centers, have the highest usage, and mostly provide a mobility function (as opposed to a land access function). Regional Tier facilities connect major population centers and have a mix functions. Some of the Regional Tier facilities can be viewed as serving statewide transportation criteria, but they usually provide an unmistakable localized function. They are equally important to a particular region of the state and also provide some land access. Subregional Tier facilities

serve localized movements. They provide more of an access function than mobility, and are of a higher interest to cities and counties than the state.

**NETWORK** – links in which you want to use the travel demand model to predict volumes and solve transportation problems.

**NOTICE OF INTENT (NOI)** – the Notice of Intent (NOI) is an announcement to the public and to interested agencies that a project is being developed and that an EIS (Environmental Impact Statement) will be prepared. It briefly describes the Study Area, the proposed action, its proposed purpose and need, the agency's proposed public scoping process, and identifies the name and address of the agency contract person.

# 0

**OFFSET** – a lateral distance from edge of traveled way to a roadside object or feature.

**OPEN-CUT** - A pipe installation/removal process that excavates the existing fill and/or pavement for the placement/removal of a crosspipe.

**OPERATING SPEED** – the highest speed at which reasonably prudent drivers can be expected to operate vehicles on a section of highway under low traffic densities and good weather. This speed may be higher or lower than posted or legislated speed limits or nominal design speeds where alignment, roadside development, or other features affect vehicle operations.

**OVERLAY RESURFACING** – The placement of a new lift of asphalt over the existing pavement surface.

# P

**PAVEMENT SCHEDULE** – The identification and thickness of the asphalt pavement design.

PHASE – a part of a traffic signal time cycle where one or more traffic movements receive the right of way. A particular stage of written construction sequencing.

**PHASING** – phasing is a clear and concise step-by-step write-up that directs the contractor where to begin and how to proceed toward completion of the project. The main objective is to communicate to the contractor how to safely maintain traffic during the various stages of construction.

**PEDESTRIAN** – one who walks or journeys on foot; a walker.

**PERMIT** – written permission given by a governmental agency with "permitting" authority to take certain action during specific steps of a project development process.

PLAN DEVELOPER – design engineer or Private Engineering Firm (PEF) that is involved in the process of developing a Traffic Management Plan (TMP).

**PLANIMETRICS (pln)** – mapping features for which only horizontal data, or plan view features, is presented. These features generally include property lines, street centerlines, structures footprints, utility lines, location of vegetation and other natural or cultural features that may be pertinent to the purpose of the map.

PLUG and FILL - In reference to a pipe, plug the ends of a pipe with bricks or cement and fill the pipe with flowable material.

**PONDING/STANDING** - A term used when water collects in an area and resembles a pond.

**PORTABLE SIGN** - A sign erected with a portable sign stand assembly.

**PORTABLE TRAFFIC SIGNAL** – A temporary traffic signal that can be easily transported and reused at different locations.

PREFERRED ALTERNATIVE – is the recommended alternative put forth no later than the FEIS (Final Environmental Impact Statement). A recommended Preferred Alternative can be identified in the DEIS (Draft Environmental Impact Statement).

**PROFILE GRADE** – A longitudinal side view of the roadway showing the engineered (designed) "up and down" (rise and fall) of the roadway.

PROJECT SCHEDULE – grouping of interconnected activities that together, form the basis of a project schedule. During the life of a project, networks are used for planning, analyzing and controlling as well as monitoring schedules, dates and resources. The five types of standard networks include Document Preparation, Preliminary Plans, Final Plans, Right-Of -Way Acquisition and Bid and Award.

PROJECT SCOPE – states what will and will not be included as part of the project.

PROJECT StaRS – Project Scheduling Tracking and Reporting System, which replaces the PMII name. This provides NCDOT management, planners and design engineers with access to project status information and reporting during the planning and design of TIP projects.

**PUBLIC INFORMATION PROGRAM** – process through which government utilizes various methods to notify the public about upcoming lane closures, including media advisories sent statewide and to local media, local businesses, etc.

**PUBLIC INVOLVEMENT** – process through which government communicates with its stakeholders using a series of products, tools, documents and outreach opportunities.

**PUBLIC HEARING** – the meeting designed to afford the public the fullest opportunity to express opinions regarding a transportation project. A verbatim record (transcript) of the proceedings is made part of the project record.

**PUBLIC MEETING** – an announced meeting conducted by the convening agency designed to facilitate participation in the decision-making process and to assist the public in gaining an informed view of a proposed project at any level. Can be referred to as a public information meeting.

PUBLIC TRANSPORTATION – transportation by bus, rail (commuter or light), ferry or other transport, either publicly or privately owned, which is provided to the public or specialty service on a regular and continuing basis.

# Q

QUEWZ – 98 – is a microcomputer analysis tool for planning and scheduling use in freeway work zone lane closures. It analyzes traffic conditions on a freeway segment with and without a lane closure in a place and provides estimates of the additional road user costs and of the queuing resulting from a work zone lane closure. The road user cost calculated includes travel time, vehicle operating costs, and excess emissions.

#### R

**REGIONAL TIER** – facilities connecting major population centers and have a mix of functions. Some of the Regional Tier facilities can be viewed as serving statewide transportation criteria, but they usually provide an unmistakable localized function. They are equally important to a particular region of the state and also provide some land access.

**RETENTION** - The permanent storage of excess storm water.

**RETROFITTING** - In reference to a pipe, place a smaller diameter pipe inside of a larger existing pipe and fill any voids with flowable material.

**RIGHT OF WAY (ROW)** – a public or private area that allows to passage of people or goods, including, but not limited to, freeways, streets, bicycle paths, alleys, trails and walkways. A public right-of-way is dedicated or deeded to the public entity for use under the control of a public agency.

**ROADSIDE DESIGN GUIDE** – A document developed by AASHTO that presents a combination of current information and operating practices related to roadside safety.

ROADWAY - A roadway shall be defined as contained in the Uniform Vehicle Code, "That portion of a highway improved, designed, or ordinarily used for vehicular travel, exclusive of

the berm or shoulder". Furthermore, as pertains to the work zone environment, a roadway may or may not be utilized by traffic in a particular phase of construction. Therefore, for communication purposes, the roadway is the actual pavement regardless of whether or not it is being utilized by traffic.

RSD - Roadway Standard Drawings. This Standard Manual is used to display the most appropriate signing and the placement of signing. Every designer should have a copy of the English version of the RSD.

RTE – Regional Traffic Engineer. The member of the Traffic Engineering and Safety Systems Branch that is responsible for making traffic signal recommendations. Among the recommendations made are where new permanent traffic signals are required and whether temporary signals are necessary on detour routes or temporary haul roads.

**RUNOUT LENGTH** – The theoretical distance required for a vehicle that has left the roadway to come to a stop.

**RURAL FACILITY** – Roads that accommodate moderate to low volumes of traffic that connect all, or mostly all, incorporated areas with populations of 50,000 or over.

# S

SAP R/3 – enterprise department-wide software used for business integration. SAP stands for Systems Applications and Products (in data processing). Worldwide corporation headquartered in Germany.

**SCALE** – the measurement (length) used on a set of plans to represent a larger measurement. For instance, 1 inch may represent 100 feet in a set of plans.

**SCOPING** – the process of establishing the principal issues to be addressed in an environmental impact assessment.

SCOPING DATA – principle issues addressed in an environmental impact assessment.

**SHORING FOR THE MAINTENANCE OF TRAFFIC** - That shoring necessary to provide lateral support to the side of an excavation or embankment parallel to an open travelway when a theoretical 2:1 or steeper slope from the bottom of the excavation or embankment intersects the existing ground line closer than five (5) feet from the edge of pavement of the open travelway.

**SHORT DURATION** - work that occupies a location up to one (1) hour.

**SHORT-TERM STATIONARY** - daytime work that occupies a location for more than one (1) hour within a single daylight period.

**SHOULDER** – the portion of roadway adjacent to the traveled surface for accommodation of stopped vehicles for emergency use, and for lateral (side) support of base and surface courses.

SHY DISTANCE – the distance from the edge of the traveled way beyond which a roadside object will not be perceived as an obstacle by the typical driver to the extent that the driver will change the vehicle's placement or speed.

SIGNIFICANT IMPACTS – any number of social, environmental, or economic effects or influences which may be brought about as a result of the implementation of a transportation improvement. "Significant impacts" may include effects which are direct, secondary, or cumulative. The term "significant" is used and interpreted to determine which type of NEPA (National Environmental Policy Act) document is appropriate. Categorical Exclusions (CE) are those actions which do not involve significant effects. Environmental Impact Statement projects in most cases can and do involve significant impacts.

**SIGNIFICANT PROJECT** - a significant project is defined as one that, alone or in combination with other concurrent projects nearby, is anticipated to cause sustained work zone impacts that are greater than what is considered tolerable based on State policy and/or engineering judgment.

**SIGHT DISTANCE** – the length of roadway visible to the driver of a vehicle at any given point on the roadway when the view is unobstructed; that area or property designated on the plans to be acquired for sight distance purposes in order to ensure the driver an unobstructed view.

**SPECIAL SIGN DESIGN** - a sign design that is not standard and requires design from the Signing Section.

**STAKEHOLDERS** – individuals, communities, government agencies, private organizations, non-governmental organizations and others having an interest or "stake" in both the process and outcomes of a project.

**STATE FORCES** – employees of the State who are responsible for performing highway maintenance work and contract work which is not included as part of the contractor's duties and obligations.

**STATEWIDE TIER** – facilities that serve long-distance trips, connect regional centers, have the highest usage, and mostly provide a mobility function (as opposed to a land access function).

**STATIONARY SIGN** – a sign erected with a stationary ground mounted post.

**SUBREGIONAL TIER** - facilities that serve localized movements. They provide more of an access function than mobility, and are of a higher interest to cities and counties than the state.

**SUBURBAN FACILITY** — Roads that accommodate moderate to high volumes of traffic around, but not necessarily connecting, incorporated areas with populations of 50,000 or over.

**SUPERELEVATION** – The pavement cross slope of the roadway.

**SURFACE COURSE** – the top layer of the pavement structure.

#### Т

**TEMPORARY ALIGNMENT** - A horizontal and/or vertical alignment that differs from both the existing and proposed alignments. It is requested by Work Zone Traffic Control Section for the maintenance of traffic and designed by Roadway Design.

**TEMPORARY BARRIER** – A device used to prevent vehicular access into construction or maintenance work zones and to redirect an impacting vehicle so as to minimize damage to the vehicle and injury to the occupants while providing worker protection.

**TEMPORARY PAVEMENT** – Additional pavement that is needed for maintenance of traffic during a particular phase of construction and may or may not be removed later in the construction sequence.

**TEMPORARY SHORING** – for maintenance of traffic is defined as "that shoring necessary to provide lateral support to the side of an excavation or embankment parallel to an open travelway when a theoretical 2:1 or steeper slope from the bottom of the excavation or embankment intersects the existing ground line closer than five feet from the edge of pavement of an open travelway."

TEMPORARY SHORING - BARRIER SUPPORTED - Shoring used when portable concrete barrier (PCB) is located within three (3) feet of the shoring, measured to the back face of the PCB, and a drop- off of at least three (3) feet exists behind the shoring, requiring the shoring to be designed to resist lateral movement of the PCB — when struck by a vehicle.

**TEMPORARY SIGNAL DESIGN** – A signal plan that accommodates temporary traffic patterns.

**TEMPORARY TRAFFIC SIGNAL** – A traffic signal that is installed for a limited time period then removed when conditions no longer warrant a signal.

**TERMINAL SECTION** – The portion of a ramp where it intersects with (or t's into) another roadway.

THE WORK ZONE SAFETY AND MOBILITY RULE (RULE) - was published on September 9, 2004, in the Federal Register. All state and local governments that receive federal-aid funding were required to comply with the provisions of the rule no later than October 12, 2007. The Rule updates and broadens the former regulation at 23 CFR 630 Subpart J to address more of the

current issues affecting work zone safety and mobility. The changes to the regulation encourage broader consideration of the safety and mobility impacts of work zones across project development, and the implementation of strategies that help manage these impacts during project delivery.

TITLE SHEET – the front sheet on a set of plans which describes the project, shows the location of the project, gives the general layout of the project, and other information (always sheet No.1 in a set of plans).

**TRAFFIC CALMING MEASURE** – includes speed bumps, traffic islands, roundabouts, etc. Their purpose is to slow motorized traffic, primarily on residential streets.

**TRAFFIC CONTROL DEVICES** – all signs, signals, markings and devices placed on, over, or adjacent to a street or highway by authority of a public body or official jurisdiction to regulate, warn, or guide traffic.

**TRAFFIC SIGNAL** – Any power-operated traffic control device that alternately assigns right of way.

**TRANSITION** – A section of barrier between two different types of barrier or, more commonly, where a roadside barrier is connected to a bridge railing or to a rigid object such as a bridge pier.

**TRANSPORTATION IMPROVEMENT PROGRAM (TIP)** – the State Transportation Improvement Program (STIP) is the document showing the transportation projects expected to occur over the next seven years.

**TRANSPORTATION MANAGEMENT PLAN (TMP)** - a TMP lays out a set of strategies for managing the work zone impacts of a project. Because work zone objectives, needs, and issues vary from project to project, the scope, content, and degree of detail in a TMP will also vary from project to project. It is ultimately up to the agency to establish and implement TMPs that best serve the mobility and safety needs of the motoring public, construction workers, businesses, and community.

The Work Zone Safety and Mobility Rule states that for significant projects the State shall develop a TMP that consists of a Temporary Traffic Control (TTC) plan and addresses both Transportation Operations (TO) and Public Information (PI) components. For individual projects or classes of projects that the State determines to have less than significant work zone impacts, the TMP may consist only of a TTC plan. However, states are encouraged to also consider TO and PI issues for these projects.

**TRAVEL LANE** - A travel lane is one part of the travelway, which may be divided into one or more lanes designating the direction and separation of traffic flow.

**TRAVELWAY** - A travelway shall be defined as the portion of the highway utilized by traffic that is designed and intended for vehicular use. In a work zone environment this may include locations such as the roadway, shoulders, temporary pavements, detour routes, or other locations where traffic may be placed during the progress of construction. If a lane has been closed to traffic, the closed lane will not be considered a travelway since it no longer is intended to be used by traffic.

**TRENCHLESS CONSTRUCTION** - A pipe installation process that allows the crosspipe to be placed without excavation of existing fill and/or pavement. Examples are the auger boring (same as bore and jacking), microtunneling, Tunnel Boring Method (TBM) and pipe ramming.

TYPICAL SECTIONS – a Section of a road that shows exactly what the road should look like after it is constructed. It includes the type and thickness of the base and surface materials, the crown, super elevation, ditch, slope, cut slope, fill slope, and all horizontal widths of components, such as surface, shoulders, and ditches.

# U

**URBAN FACILITY** — Roads that accommodate high volumes of traffic in, and around, incorporated areas with populations of 50,000 or over.

**USER COST** – are "indirect" expenses incurred by the motoring public due to highway project work. These costs generally occur due to the following:

- Delays caused by lane and road closures.
- Additional miles traveled due to off-site detours.

#### V

V – (velocity) design speed.

# W

**WORK ZONE** – any continuous tract or area of a roadway in which construction or maintenance is being performed.

# Y

-Y- LINE – secondary or side street alignment chain designation intersecting the main line –L-within a set of roadway design plans.