

Improve I-70 KC - Glossary of Terms

Missouri Department of Transportation (MoDOT)

Alignment: The horizontal (“side-to-side curves”) and vertical (“up-and-down hills”) definition of a roadway.

Arterial Road: A high capacity urban road. The primary function of an arterial road is to deliver traffic from collector and local roads to freeways.

Auxiliary Lane: A lane that is added between interchanges to give drivers more room to speed up and slow down when getting on or off a highway.

Bottleneck: Section of road that experiences congestion at a specific point; it can be caused by curves, reduced number of lanes, merging traffic, or areas where the number of vehicles exceeds the capacity of the roadway.

Capacity: The number of vehicles that a roadway can reasonably accommodate over a certain period of time.

Clear Zone: Area adjacent to the roadway absent of obstructions such as trees, boulders and non-breakable sign posts, or with protected elements.

Conflict Point: Any point where the paths of two through or turning vehicles diverge, merge or cross.

Constructability: A detailed review of construction issues and sequencing of a project during the project development phase.

Corridor: A broad geographical band that follows the general directional flow or connects major sources and destinations or trips; generally representing the major travel patterns within a region, corridors may contain a number of streets, highways and transit route alignments.

Crash Rate: Measure of the number of crashes on a roadway segment related to the amount of traffic on that segment; the rate is calculated by taking the number of crashes over a given time period divided by the total vehicle-miles of travel on a roadway segment; the rate is typically reported in number of crashes per hundred million vehicle-miles of travel.

Cultural Resource: A generic term for sites and structures that have some historic, archeological or architectural significance.

Design Criteria: Established state and national standards and procedures that guide the establishment of roadway layouts, alignments, geometry and dimensions for specified types of roadways in certain defined conditions; the principal design criteria for roadways are traffic volume,

design speed, the physical characteristics of vehicles, the classification of vehicles and the percentage of various vehicle classification types that use the roadway.

Design Hour Volume: The hourly traffic volume used to evaluate or design a highway or driveway.

Environmental Impact Statement (EIS): One of the environmental protection mechanisms established by the National Environmental Policy Act of 1969; environmental impact statements report the impacts that will likely result to the natural and manmade environments from major federally assisted projects.

Fatality Rate: The number of fatalities per 100 million vehicle-miles traveled.

Guardrail: Protective barrier along a roadway to prevent vehicles from leaving the roadway or crossing the centerline.

I-70 First Tier EIS: Encompassed a large corridor area and addressed overall corridor strategies that was divided into subsequent Second Tier environmental studies. The limits of this First Tier EIS were approximately 18 miles along I-70 just east of the Missouri/Kansas state line to east of the I-470 interchange.

Geometrics: Relates to the curves, hills, and valleys of a roadway. It also includes the number of lanes, median, and shoulders.

Horizontal Alignment: The configuration of a roadway comprised of curves and straight sections.

Improvement Alternative: A transportation alternative that addresses the needs along the I-70 corridor. These alternatives include roadway improvements, wider shoulders, interchange configuration improvements, interchange consolidations, etc.

Infrastructure: The underlying foundation for development, such as a city's water, sewer or road systems.

Interchange Spacing: The distance between two grade-separated interchanges. Guidelines call for having them at least one mile apart within urban areas.

(two different items)

Interchange (grade separation): A system of interconnecting roadways that provides for the movement of traffic between two or more highways on different levels.

Kansas City Scout: A public information system used to monitor and respond to traffic incidents and provide roadway information to motorists in the metropolitan area. This is primarily done with

changeable message boards that provide real-time information to the motorists along major facilities.

Lane Balance: Number of through lanes at an exit ramp is equal to the number of through lanes after the exit ramp.

Level-of-Service (LOS): A qualitative measure describing operational conditions within a traffic stream based upon service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience. LOS A represents completely free flow of traffic allowing traffic to maneuver unimpeded. LOS F represents a complete breakdown in traffic flow resulting in stop and go travel. LOS is typically calculated based upon peak-hour conditions.

Median Barriers: A longitudinal system of physical barriers used to prevent an errant vehicle from crossing the portion of the divided highway separating traffic moving in opposite directions.

National Environmental Policy Act (NEPA): Federal law providing for environmental assessments of impacts and public input into all federally funded projects; an environmental study could be either an environmental impact statement or environmental assessment.

Operation Green Light: An ongoing study and associated projects to improve coordination of traffic signals on regional corridors which in turn could reduce the congestion at interchanges and the number of local trips on I-70.

Partial Access: One or more movements at an interchange is not available. For example, Truman Road access to I-70 is only available to and from the west.

Preferred Alternative: Based on the evaluation of the alternatives and their impacts, the option for improving a roadway that has been recommended in the Draft Environmental Impact Statement for implementation in coordination by the FHWA and MoDOT.

Preliminary Design: An engineering design that specifies in detail the location and alignment of a planned transportation facility or improvement.

Purpose and Need Statement: A project's "Need" is an **identified transportation deficiency or problem**, and its "Purpose" is the set of objectives that will be met to address the transportation deficiency. A reasonable solution or range of solutions is developed and evaluated based on these objectives.

Record of Decision (ROD): The final approval of an environmental impact statement issued by the Federal Highway Administration.

Right of Way (ROW): A general term denoting land or property acquired for or devoted to transportation purposes, but with other associated uses such as utilities, water and sewage lines and buffer zones. The land (usually a strip) acquired for or devoted to transportation purposes. For example, highway ROW and railroad ROW.

I-70 Second Tier EIS: The focus of this study which evaluates the Selected Strategy for a 6.8 mile section along I-70 between The Paseo and Blue Ridge Cutoff interchanges.

Section of Independent Utility (SIU): A section of a larger project which can be implemented independently without constructing improvements to adjoining roadway sections.

Selected Strategy: Result of the First Tier EIS which is to improve the key bottlenecks from The Paseo to Blue Ridge Cutoff interchanges.

Sight Distance: The length of highway visible to the driver.

SmartMoves Regional Transit Vision: Kansas City's vision for expanded and enhanced regional transit services in the eight counties of the metropolitan area.

Speed: Design speed is the maximum safe speed that can be maintained over a specified section of highway when conditions are so favorable that the design features of the highway govern. The design speed of a roadway dictates which geometric design standards are used, such as stopping sight distance, radius of curves and banking (superelevation) of road surfaces.

- Operating speed is the speed at which drivers are observed operating their vehicles.
- Posted speed is the maximum speed limit posted on a section of roadway using a regulatory sign.

Study Area: A geographic area selected and defined at the outset of engineering or environmental evaluations which is sufficiently adequate in size to address all pertinent project matters occurring within it.

Weaving Section: Where vehicles in different lanes need to cross each other to get their desired lane.