

## CHAPTER 5

### GLOSSARY

This chapter defines the terms used in the manual.

- Acceleration lane** - A paved auxiliary lane, including tapered areas, allowing vehicles to accelerate when entering the through-traffic lane of the roadway.
- Access point** - An intersection, driveway, or opening on the right-hand side of a roadway. An entry on the opposite side of a roadway or a median opening also can be considered as an access point if it is expected to influence traffic flow significantly in the direction of interest.
- Access-point density** - The total number of access points on a roadway divided by the length of the roadway and then averaged over a minimum length of 5 km.
- Accuracy** - The degree of a measure's conformity to a standard or true value.
- Adjustment** - An additive or subtractive quantity that adjusts a parameter for a base condition to represent a prevailing condition.
- Adjustment factor** - A multiplicative factor that adjusts a parameter for a base condition to represent a prevailing condition.
- Aggregate delay** - The summation of delays for multiple lane groups, usually aggregated for an approach, an intersection, or an arterial route.
- Alighting time** - The time required for a passenger to leave a transit vehicle, expressed as time per passenger or total time for all passengers.
- All-way stop-controlled** - An intersection with stop signs at all approaches. The driver's decision to proceed is based on the rules of the road (e.g., the driver on the right has the right-of-way) and also on the traffic conditions of the other approaches.
- Analysis period** - A single time period during which a capacity analysis is performed on a transportation facility. If the demand exceeds capacity during an analysis period, consecutive analysis periods can be selected to account for initial queue from the previous analysis period. Also referred to as time interval.
- Analytical model** - A model that relates system components using theoretical considerations tempered, validated, and calibrated by field data.
- Angle loading area** - A bus bay design, similar to an angled parking space, requiring buses to back up to exit and allowing more buses to stop in the given linear space. Typically used when buses must occupy berths for a long period of time (e.g., at an intercity bus terminal).
- Annual average daily traffic** - The total volume of traffic passing a point or segment of a highway facility in both directions for one year divided by the number of days in the year.
- Approach** - A set of lanes at an intersection that accommodates all left-turn, through, and right-turn movements from a given direction.
- Approach grade** - The grade of an intersection approach, expressed as a percentage, with positive values for upgrade and negative for downgrade.
- Area type** - A geographic parameter reflecting the variation of saturation flows in different areas.
- Arrival rate** - The mean of the statistical distribution of vehicles arriving at a point or uniform segment of a lane or roadway.
- Arrival type** - Six assigned categories for determining the quality of progression at a signalized intersection.
- Arterial** - A signalized street that primarily serves through-traffic and that secondarily provides access to abutting properties, with signal spacings of 3.0 km or less.
- Articulated bus or articulated trolleybus** - An extralong, high-capacity bus or trolleybus with a rear body section or sections flexibly but permanently connected to the forward section. The vehicle can bend for curves but does not require an interior barrier between its sections.

Acceleration lane—Articulated bus or articulated trolleybus

Auxiliary lane—Capacity

- Auxiliary lane** - An additional lane on a freeway to connect an on-ramp and an off-ramp.
- Average travel speed** - The length of the highway segment divided by the average travel time of all vehicles traversing the segment, including all stopped delay times.
- Back of queue** - The distance between the stop line of a signalized intersection and the farthest reach of an upstream queue, expressed as a number of vehicles. The vehicles previously stopped at the front of the queue are counted even if they begin moving.
- Base condition** - The best possible characteristic in terms of capacity for a given type of transportation facility; that is, further improvements would not increase capacity; a condition without hindrances or delays.
- Base saturation flow rate** - The maximum steady flow rate—expressed in passenger cars per hour per lane—at which previously stopped passenger cars can cross the stop line of a signalized intersection under base conditions, assuming that the green signal is available and no lost times are experienced.
- Basic freeway segment** - A length of freeway facility whose operations are unaffected by weaving, diverging, or merging.
- Berth** - A position for a bus to pick up and discharge passengers, including curb bus stops and other types of boarding and discharge facilities.
- Bicycle** - A vehicle with two wheels tandem, propelled by human power, and usually ridden by one person.
- Bicycle facility** - A road, path, or way specifically designated for bicycle travel, whether exclusively or with other vehicles or pedestrians.
- Bicycle lane** - A portion of a roadway designated by striping, signing, and pavement markings for the preferential or exclusive use of bicycles.
- Bicycle path** - A bikeway physically separated from motorized traffic by an open space or barrier, either within the highway right-of-way or within an independent right-of-way.
- Bicycle speed** - The riding speed of bicycles, in kilometers per hour or meters per second.
- Boarding time** - The time for a passenger to board a transit vehicle, expressed as time per passenger or total time for all passengers.
- Body ellipse** - The space provided per pedestrian on a pedestrian facility, expressed as square meters per pedestrian.
- Bottleneck** - A road element on which demand exceeds capacity.
- Breakdown** - The onset of a queue development on a freeway facility.
- Breakdown flow** - Also called forced flow, occurs either when vehicles arrive at a rate greater than the rate at which they are discharged or when the forecast demand exceeds the computed capacity of a planned facility.
- Bus** - A self-propelled, rubber-tired road vehicle designed to carry a substantial number of passengers (at least 16) and commonly operated on streets and highways.
- Bus lane** - A highway or street lane reserved primarily for buses during specified periods. It may be used by other traffic under certain circumstances, such as making a right or left turn, or by taxis, motorcycles, or carpools that meet the requirements of the jurisdiction's traffic laws.
- Bus platoon** - A convoy of several buses, with each bus following the operating characteristics of the one in front.
- Bus stop** - An area in which one or more buses load and unload passengers. It consists of one or more loading areas and may be on line or off line.
- Busway** - A right-of-way restricted to buses by a physical separation from other traffic lanes.
- Calibration** - The process of comparing model parameters with real-world data to ensure that the model realistically represents the traffic environment. The objective is to minimize the discrepancy between model results and measurements or observations.
- Capacity** - The maximum sustainable flow rate at which vehicles or persons reasonably can be expected to traverse a point or uniform segment of a lane or roadway during a specified time period under given roadway, geometric, traffic, environmental, and

control conditions; usually expressed as vehicles per hour, passenger cars per hour, or persons per hour.

**Captive riders** - Transit riders, such as people with disabilities, the elderly, young adolescents, and adults without driver's licenses, who do not have alternative means of travel.

**Change interval** - The yellow plus all-red interval that occurs between phases of a traffic signal to provide for clearance of the intersection before conflicting movements are released.

**Circulating flow** - The volume of traffic on the principal roadway of a roundabout at a given time.

**Circulating roadway** - The continuous-flow section of a roundabout that requires other vehicles entering the roadway to yield.

**Circulation area** - The portion of a sidewalk street corner used by moving pedestrians passing through the area; in square meters.

**Clearance lost time** - The time, in seconds, between signal phases during which an intersection is not used by any traffic.

**Clearance time** - The time loss at a transit stop, not including passenger dwell times. This parameter can be the minimum time between one transit vehicle leaving a stop and the following vehicle entering and can include any delay waiting for a sufficient gap in traffic to allow the transit vehicle to reenter the travel lane.

**Climbing lane** - A passing lane added on an upgrade to allow traffic to pass heavy vehicles whose speeds are reduced.

**Collector street** - A surface street providing land access and traffic circulation within residential, commercial, and industrial areas.

**Commuter rail** - The portion of passenger railroad operations that carries passengers within urban areas, or between urban areas and their suburbs; unlike rapid rail transit, the passenger cars generally are heavier, the average trip lengths are usually longer, and the operations are carried out over tracks that are part of the area's railroad system.

**Composite grade** - A series of adjacent grades along a highway that cumulatively has a more severe effect on operations than each grade separately.

**Compound left-turn protection** - A signal phasing scheme that provides both a protected and permitted phase in each cycle for a left turn. See also *protected plus permitted* and *permitted plus protected*.

**Conflicting approach** - The approach opposite the subject approach at an all-way stop-controlled intersection.

**Conflicting flow rate** - The flow rate of traffic that conflicts with a specific movement at an unsignalized intersection.

**Conflicting movements** - The traffic streams in conflict at an unsignalized intersection.

**Congested flow** - A traffic flow condition caused by a downstream bottleneck.

**Constrained operation** - An operating condition in a weaving segment, involving geometric and traffic constraints, that prevents weaving vehicles from occupying a large portion of the lanes available to achieve balanced operation.

**Control condition** - The traffic controls and regulations in effect for a segment of street or highway, including the type, phasing, and timing of traffic signals; stop signs; lane use and turn controls; and similar measures.

**Control delay** - The component of delay that results when a control signal causes a lane group to reduce speed or to stop; it is measured by comparison with the uncontrolled condition.

**Corridor** - A set of essentially parallel transportation facilities designed for travel between two points. A corridor contains several subsystems, such as freeways, rural (or two-lane) highways, arterials, transit, and pedestrian and bicycle facilities.

**Coverage** - The geographical area that a transit system serves, normally based on acceptable walking distances from loading points.

Captive riders—Coverage

Crawl speed—Design speed

- Crawl speed** - The maximum sustained speed that can be maintained by a specified type of vehicle on a constant upgrade of a given percent; in kilometers per hour.
- Critical density** - The density at which capacity occurs for a given facility, usually expressed as vehicles per kilometer per lane.
- Critical gap** - The minimum time, in seconds, between successive major-stream vehicles, in which a minor-street vehicle can make a maneuver. Also see *Pedestrian critical gap*.
- Critical lane group** - The lane groups that have the highest flow ratio for a given signal phase.
- Critical speed** - The speed at which capacity occurs for a facility, usually expressed as kilometers per hour.
- Critical volume-to-capacity ratio** - The proportion of available intersection capacity used by vehicles in critical lane groups.
- Cross flow** - A pedestrian flow that is approximately perpendicular to and crosses another pedestrian stream. The smaller of the two flows is the cross-flow condition.
- Crosswalk** - A marked area for pedestrians crossing the street at an intersection or designated midblock location.
- Crown line** - A lane marking that connects from the entrance gore area directly to the exit gore area.
- Crush load** - The maximum number of passengers that can be accommodated on a transit vehicle.
- Cycle** - A complete sequence of signal indications.
- Cycle length** - The total time for a signal to complete one cycle.
- Deceleration lane** - A paved auxiliary lane, including tapered areas, allowing vehicles leaving the through-traffic lane of the roadway to decelerate.
- Default value** - A representative value that may be appropriate in the absence of local data.
- Delay** - The additional travel time experienced by a driver, passenger, or pedestrian.
- Demand** - The number of users desiring service on the highway system, usually expressed as vehicles per hour or passenger cars per hour.
- Demand-responsive service** - Passenger cars, vans, or buses with fewer than 25 seats, dispatched by a transit operator in response to calls from passengers or their agents.
- Demand starvation** - A condition when portions of the green time at a downstream intersection cannot be used because conditions at an upstream intersection prevent vehicles from reaching the stop line downstream at an interchange ramp terminal.
- Demand to capacity ratio** - The ratio of demand flow rate to capacity for a traffic facility.
- Density** - The number of vehicles on a roadway segment averaged over space, usually expressed as vehicles per kilometer or vehicles per kilometer per lane. Also see *Pedestrian density*.
- Departure headway** - The average headway in seconds between two consecutive vehicles departing from a lane at an all-way stop-controlled intersection.
- Descriptive model** - A mathematical model that applies concepts or theoretical principles to represent the behavior of a system.
- Design application** - Using capacity analysis procedures to determine the size (number of lanes) required for a specified level of service.
- Design category** - A type of urban street defined by geometric features and roadside environment.
- Design hour** - An hour with a traffic volume that represents a reasonable value for designing the geometric and control elements of a facility.
- Design-hour factor (K-factor)** - The proportion of the 24-h volume that occurs during the design hour.
- Design speed** - A speed used to design the horizontal and vertical alignments of a highway.

**Deterministic model** - A mathematical model that is not subject to randomness. The result of one analysis can be repeated with certainty.

**Diamond interchange** - An interchange that results in two or more closely spaced surface intersections, so that one connection is made to each freeway entry and exit, with one connection per quadrant.

**Directional design-hour volume** - The traffic volume for the design hour in the peak direction of flow, in vehicles per hour.

**Directional distribution** - A characteristic of traffic, that volume may be greater in one direction than in the other during any particular hour on a highway.

**Directional flow rate** - The flow rate of a highway in one direction.

**Directional segment** - A length of two-lane highway in one travel direction, with homogeneous cross sections and relatively constant demand volume and vehicle mix.

**Directional split** - The directional distribution of hourly volume on a highway, expressed in percentages.

**Diverge** - A movement in which a single lane of traffic separates into two lanes without the aid of traffic control devices.

**Double-stream door** - A transit vehicle door, generally 1.14 to 1.37 m wide, that permits two passengers to board, alight, or board and alight simultaneously.

**Downstream** - The direction of traffic flow.

**Downtown street** - A surface facility providing access to abutting property in an urban area.

**Drive-through (pull-through) loading area** - A bus bay design for compact areas, providing several adjacent loading islands, between which buses stop, drive through, and then exit.

**Driver population** - A parameter that accounts for driver characteristics and their effects on traffic.

**Duration of congestion** - A measure of the maximum amount of time that congestion occurs anywhere in the transportation system.

**Dwell time** - The time a transit unit (vehicle or train) spends at a station or a stop, measured from stopping to starting.

**Effective green time** - The time during which a given traffic movement or set of movements may proceed; it is equal to the cycle length minus the effective red time.

**Effective red time** - The time during which a given traffic movement or set of movements is directed to stop; it is equal to the cycle length minus the effective green time.

**Effective walkway width** - The width, in meters, of a walkway usable by pedestrians, or the total walkway width minus the width of unusable buffer zones along the curb and building line.

**85th-percentile speed** - A speed value that is less than 15 percent of a set of field measured speeds.

**Empirical model** - A model that describes system performance based on the statistical analysis of field data.

**Entrance ramp** - A ramp that allows traffic to enter a freeway.

**Equilibrium distance** - The distance between the next upstream ramp and the subject ramp, or between the next downstream ramp and the subject ramp, that produces a  $P_{FM}$  or  $P_{FD}$  value indicating that the subject ramp is isolated.

**Event** - A meeting or a passing on a bicycle facility.

**Event-based model** - A simulation model that advances from one event to the next, skipping over intervening points in time when no event occurs.

**Exclusive bus lane** - A highway or street lane reserved for buses.

**Exclusive turn lane** - A designated left- or right-turn lane or lanes used only by vehicles making those turns.

**Exit ramp** - A ramp for traffic to depart from a freeway.

Deterministic model—Exit ramp

Extension of effective  
green time—Gore area

- Extension of effective green time** - The amount of the change and clearance interval at the end of the phase for a lane group, usable for movement of its vehicles.
- Extent of congestion** - The maximum geographic extent of congestion on the transportation system at any one time.
- Facility** - A length of highway composed of connected sections, segments, and points.
- Failure rate** - The probability that a bus will find all available loading areas occupied by other buses at a bus stop.
- Far-side stop** - A transit stop that requires transit units to cross an intersection before stopping to serve passengers.
- Fixed obstruction** - Obstructions along a roadway, including light poles, signs, trees, abutments, bridge rails, traffic barriers, and retaining walls.
- Fixed-route service** - Service provided by transit vehicles on a repetitive, fixed schedule along a specific route, picking up and delivering passengers to specific locations; each fixed route serves an assigned origin and destination.
- Flared approach** - A shared right-turn lane that allows right-turning vehicles to complete their movement while other vehicles are occupying the lane.
- Flow rate** - The equivalent hourly rate at which vehicles, bicycles, or persons pass a point on a lane, roadway, or other trafficway; computed as the number of vehicles, bicycles, or persons passing the point, divided by the time interval (usually less than 1 h) in which they pass; expressed as vehicles, bicycles, or persons per hour.
- Flow ratio** - The ratio of the actual flow rate to the saturation flow rate for a lane group at an intersection.
- Follow-up time** - The time between the departure of one vehicle from the minor street and the departure of the next vehicle using the same gap under a condition of continuous queuing, in seconds.
- Free flow** - A flow of traffic unaffected by upstream or downstream conditions.
- Free-flow speed** - (1) The theoretical speed of traffic, in kilometers per hour, when density is zero, that is, when no vehicles are present; (2) the average speed of vehicles over an urban street segment without signalized intersections, under conditions of low volume; (3) the average speed of passenger cars over a basic freeway or multilane highway segment under conditions of low volume.
- Freeway** - A multilane, divided highway with a minimum of two lanes for the exclusive use of traffic in each direction and full control of access without traffic interruption.
- Freeway facility** - An aggregation of sections comprising basic freeway segments, ramp segments, and weaving segments.
- Fully actuated control** - A signal operation in which vehicle detectors at each approach to the intersection control the occurrence and length of every phase.
- Functional category** - An urban street defined by the traffic service it provides.
- Functional class** - A transportation facility defined by the traffic service it provides.
- Gap** - The time, in seconds, for the front bumper of the second of two successive vehicles to reach the starting point of the front bumper of the first.
- Gap acceptance** - The process by which a minor-street vehicle accepts an available gap to maneuver.
- Gate** - A point at which a major facility crosses the boundary of a corridor.
- Gate tree** - A list of segments connected to the entry gate of a corridor.
- General terrain** - A classification used for analysis in lieu of a specific grade.
- Geometric condition** - The spatial characteristics of a facility, including approach grade, the number and width of lanes, lane use, and parking lanes.
- Geometric delay** - The component of delay that results when geometric features cause vehicles to reduce their speed in negotiating a facility.
- Gore area** - The area located immediately between the left edge of a ramp pavement and the right edge of the roadway pavement at a merge or diverge area.

**Green time** - The duration, in seconds, of the green indication for a given movement at a signalized intersection.

**Green time ratio** - The ratio of the effective green time of a phase to the cycle length.

**Group critical gap** - The minimum time during which a platoon of pedestrians will not attempt to cross a stop-controlled intersection, expressed in seconds.

**Growth factor** - A percentage increase applied to current traffic demands to estimate future demands.

**Headway** - (1) The time, in seconds, between two successive vehicles as they pass a point on the roadway, measured from the same common feature of both vehicles (for example, the front axle or the front bumper); (2) the time, usually expressed in minutes, between the passing of the front ends of successive transit units (vehicles or trains) moving along the same lane or track (or other guideway) in the same direction.

**Heavy rail** - A transit system using trains of high-performance, electrically powered rail cars operating in exclusive right-of-way.

**Heavy vehicle** - A vehicle with more than four wheels touching the pavement during normal operation.

**High-occupancy vehicle (HOV)** - A vehicle with a defined minimum number of occupants ( $>1$ ); HOVs often include buses, taxis, and carpools, when a lane is reserved for their use.

**Hindrance** - A concept related to the comfort and convenience of bicyclists, used to derive level of service for a bicycle facility. Often, the number of events is used as a surrogate for hindrance.

**Impedance** - The reduction in the capacity of lower-priority movements, caused by the congestion of higher-priority movements at a stop-controlled approach.

**Incident** - Any occurrence on a roadway that impedes the normal flow of traffic.

**Incident delay** - The component of delay that results from an incident, compared with the no-incident condition.

**Incremental delay** - The second term of lane group control delay, it accounts for nonuniform arrivals and temporary random delays as well as delays caused by sustained periods of oversaturation.

**Influence area** - (1) An area that incurs operational impacts of merging vehicles in Lanes 1 and 2 of the freeway and the acceleration lane for 450 m from the merge point downstream; (2) an area that incurs operational impacts of diverging vehicles in Lanes 1 and 2 of the freeway and the deceleration lane for 450 m from the diverge point upstream.

**Initial queue** - The unmet demand at the beginning of an analysis period, either observed in the field or carried over from the computations of a previous analysis period.

**Initial queue delay** - The third term of lane group control delay refers to the delay due to a residual queue identified in a previous analysis period and persisting at the start of the current analysis period. This delay results from the additional time required to clear the initial queue.

**Intelligent transportation system (ITS)** - A transportation technology that enhances the safety and efficiency of vehicles and roadway systems.

**Intensity of congestion** - A measure of the total number of person-hours of delay and mean trip speed or mean delay per person-trip.

**Interchange density** - The average number of interchanges per kilometer, computed for 10 km of freeway including the basic freeway segment.

**Interchange ramp terminal** - A junction with a surface street to serve vehicles entering or exiting a freeway.

**Internal link** - The segment between two signalized intersections at an interchange ramp terminal.

Green time—Internal link

Internal zone—Load factor

- Internal zone** - A diamond-shaped area identified in a corridor analysis for each arterial street segment that lies between intersections. An internal zone represents the geographic area likely to generate trips to each segment.
- Interrupted flow** - A category of traffic facilities characterized by traffic signals, stop signs, or other fixed causes of periodic delay or interruption to the traffic stream.
- Intersection delay** - The total additional travel time experienced by drivers, passengers, or pedestrians as a result of control measures and interaction with other users of the facility, divided by the volume departing from the corresponding cross section of the facility.
- Interval** - A period of time in which all traffic signal indications remain constant.
- Isolated intersection** - An intersection at least 1.6 km from the nearest upstream signalized intersection.
- Jam density** - The density at which congestion stops all movement of persons or vehicles, usually expressed as vehicles per kilometer per lane or pedestrians per square meter.
- Kiss and ride** - An access mode to transit allowing passengers (usually commuters) to be driven to a transit stop to board a transit unit and then to be met after their return.
- Lane 1** - The highway lane adjacent to the shoulder.
- Lane 2** - The highway lane adjacent and to the left of Lane 1.
- Lane balance** - The number of lanes leaving a diverge point is equal to the number of lanes approaching it, plus one.
- Lane distribution** - A parameter used when two or more lanes are available for traffic in a single direction, and the volume distribution varies widely, depending on traffic regulation, traffic composition, speed and volume, the number of and location of access points, the origin–destination patterns of drivers, the development environment, and local driver habits.
- Lane group** - A set of lanes established at an intersection approach for separate capacity and level-of-service analysis.
- Lane group delay** - The control delay for a given lane group.
- Lane utilization** - The distribution of vehicles among lanes when two or more lanes are available for a movement; however, as demand approaches capacity, uniform lane utilization develops.
- Lane width** - The arithmetic mean of the lane widths of a roadway in one direction, expressed in meters.
- Lateral clearance** - (1) The total left- and right-side clearance from the outside edge of travel lanes to fixed obstructions on a multilane highway; (2) the right-side clearance distance from the rightmost travel lane to fixed obstructions on a freeway.
- Level of service** - A qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience.
- Level terrain** - A combination of horizontal and vertical alignments that permits heavy vehicles to maintain approximately the same speed as passenger cars; this generally includes short grades of no more than 1 to 2 percent.
- Light rail transit (LRT)** - A metropolitan electric railway system operating single cars or short trains along exclusive rights-of-way at ground level, on aerial structures, in subways, or occasionally in streets; an LRT also can board and discharge passengers at track or car floor level.
- Linear loading area** - A bus bay design in which buses stop directly behind each other, so that the bus in front must leave its bay before the following bus can exit; often used when buses occupy a bay only for a short time (e.g., at an on-street bus stop).
- Link** - A segment of highway ending at a major intersection on an urban street or at a ramp merge or diverge point on a freeway. Links have a node at each end.
- Load factor** - The number of passengers occupying a transit vehicle, divided by the number of seats on the vehicle.



**Loading area** - (1) A branch from, or widening of, a road that permits buses to stop, without obstructing traffic, while laying over or while passengers board and alight; (2) a specially designed or designated location at a transit stop, station, terminal, or transfer center at which a bus stops to allow passengers to board and alight; (3) a lane in a garage facility for parking or storing buses, often for maintenance.

**Loading island** - (1) A pedestrian refuge within the right-of-way and traffic lanes of a highway or street, designated for transit stops, to protect transit passengers from traffic while awaiting boarding or alighting; (2) a protected spot for the loading and unloading of passengers within a rail transit or bus station; (3) a passenger loading platform in the middle of the street, level with the street or more usually raised to curb height, for streetcar and light rail systems.

**Local bus** - A bus that stops for passengers within 80 m of the stop line of an intersection approach.

**Loop ramp** - A ramp requiring vehicles to execute a left turn by turning right, accomplishing a 90-degree left turn by making a 270-degree right turn.

**Lost time** - The time, in seconds, during which an intersection is not used effectively by any movement; it is the sum of clearance lost time plus start-up lost time.

**Low floor bus** - A bus without steps at its entrances and exits.

**Macroscopic model** - A mathematical model that employs traffic flow rate variables.

**Mainline** - The primary through roadway as distinct from ramps, auxiliary lanes, and collector-distributor roads.

**Major diverge segment** - A segment in which one freeway segment with multiple lanes diverges, to form two primary freeway segments.

**Major merge segment** - A segment in which two primary freeway segments, each with multiple lanes, merge to form a single freeway segment.

**Major street** - The street not controlled by stop signs at a two-way stop-controlled intersection.

**Major weaving segment** - A weaving segment with at least three entry and exit legs, each with two or more lanes.

**Maximum load point** - The point on a transit line or route at which the passenger volume is the greatest. There is one maximum load point in each direction.

**Measure of effectiveness** - A quantitative parameter indicating the performance of a transportation facility or service.

**Meeting** - An encounter of bicycles or pedestrians moving in the opposite direction of the subject bicycle flow.

**Merge** - A movement in which two separate lanes of traffic combine to form a single lane without the aid of traffic signals or other right-of-way controls.

**Mesoscopic model** - A mathematical model for the movement of clusters or platoons of vehicles, incorporating equations to indicate how these clusters interact.

**Microscopic model** - A mathematical model that captures the movement of individual vehicles.

**Midblock stop** - A transit stop located at a point away from intersections.

**Minor arterial** - A functional category of a street allowing trips of moderate length within a relatively small geographical area.

**Minor movement** - A vehicle making a specific directional entry into an unsignalized intersection from a minor street.

**Minor street** - The street controlled by stop signs at a two-way stop-controlled intersection; also referred to as a *side street*.

**Mixed-traffic bus facility** - Buses operating in mixed traffic with automobiles.

**Mountainous terrain** - A combination of horizontal and vertical alignments causing heavy vehicles to operate at crawl speeds for significant distances or at frequent intervals.

Loading area—Mountainous terrain

Movement capacity—  
Paid area

- Movement capacity** - The capacity of a specific traffic stream at a stop-controlled intersection approach, assuming that the traffic has exclusive use of a separate lane, in passenger cars per hour.
- Multilane highway** - A highway with at least two lanes for the exclusive use of traffic in each direction, with no control or partial control of access, but that may have periodic interruptions to flow at signalized intersections no closer than 3.0 km.
- Multimodal** - A transportation facility for different types of users or vehicles.
- Multiple weaving segment** - A segment formed when one merge is followed by two diverge points, or two merge points are followed by one diverge point.
- Near-side stop** - A transit stop located on the approach side of an intersection. The transit units stop to serve passengers before crossing the intersection.
- No-passing zone** - A segment of a two-lane, two-way highway along which passing is prohibited in one or both directions.
- Node** - The endpoint of a link; also used interchangeably with point.
- Nonweaving flow** - The traffic movements in a weaving segment that are not engaged in weaving movements.
- Normative model** - A mathematical model that identifies a set of parameters that provide the best system performance.
- Off-line loading** - A transit unit (vehicle or train) stops outside the main track or travel lane, so that its passengers can board and alight and other units can pass.
- Off-line model** - A mathematical model in which the output neither directly nor immediately influences traffic operations.
- Off-line stop** - A location outside the main track or travel lane at which a transit unit (vehicle or train) stops, so that passengers can board and alight and other units can pass.
- Off-ramp** - See *Exit ramp*.
- Off-street path** - A path physically separated from highway traffic for the use of pedestrians, bicycles, and nonmotorized traffic.
- Offset** - The difference, in seconds, between the start of green time at the two signalized intersections of a diamond interchange for through traffic on the internal link or the time between the start of individual green times and a specified time datum in a system of signalized intersections.
- On-line loading** - A station stop for transit units on the main track or travel lane.
- On-line model** - A model that influences the control system operation in real time.
- On-line stop** - A transit unit stop in the main track or travel lane.
- On-ramp** - See *Entrance ramp*.
- Open fare collection system** - A system for collecting transit fares that does not have turnstiles or fare gates.
- Operating margin** - The amount of time that a train can run behind schedule without interfering with following trains.
- Operational application** - A use of capacity analysis to determine the level of service on an existing or projected facility, with known or projected traffic, roadway, and control conditions.
- Opposing approach** - The approach approximately 180 degrees opposite the subject approach at an all-way stop-controlled intersection.
- Opposing flow rate** - The flow rate for the direction of travel opposite to the direction under analysis.
- Overflow queue** - Queued vehicles left over from a green phase at a signalized intersection.
- Oversaturation** - A traffic condition in which the arrival flow rate exceeds capacity.
- Paid area** - (1) An area that a passenger may enter only after paying a fare or showing credentials; (2) a station area set off by barriers or gates to restrict access to transit only to those who have paid fares or secured passes.

**Paratransit** - Transportation services that are more flexible and personalized than conventional fixed-route, fixed-schedule services; however, such exclusive services as charter bus trips are not considered paratransit. The vehicles usually are low- or medium-capacity highway vehicles, and the service often is adjustable to individual users' requirements.

**Parclo** - See *Partial cloverleaf interchange*.

**Park and ride** - An access mode to transit in which patrons drive private automobiles or ride bicycles to a transit station, transit stop, or carpool or vanpool waiting area, parking in the areas provided.

**Partial cloverleaf interchange** - Also called a parclo, an interchange with one or two loop ramps.

**Partial diamond interchange** - A diamond interchange with fewer than four ramps, so that not all of the freeway-street or street-freeway movements are served.

**Passenger-car equivalent** - The number of passenger cars displaced by a single heavy vehicle of a particular type under specified roadway, traffic, and control conditions.

**Passenger service time** - The time required for a passenger to board or alight from a transit vehicle, in seconds per passenger.

**Passing** - An encounter with a bicycle or pedestrian moving in the same direction as the subject bicycle flow on a bicycle facility.

**Passing lane** - A lane added to improve passing opportunities in one direction of travel on a conventional two-lane highway.

**Passing sight distance** - The visibility distance required for drivers to execute safe passing maneuvers in the opposing traffic lane of a two-lane, two-way highway.

**Peak-hour factor** - The hourly volume during the maximum-volume hour of the day divided by the peak 15-min flow rate within the peak hour; a measure of traffic demand fluctuation within the peak hour.

**Pedestrian** - An individual traveling on foot.

**Pedestrian critical gap** - The minimum time during which a single pedestrian will not attempt to cross an intersection, expressed in seconds.

**Pedestrian density** - The number of pedestrians per unit of area within a walkway or queuing area, expressed as pedestrians per square meter.

**Pedestrian effective green time** - The minimum effective green time required to serve a given pedestrian demand, expressed in seconds.

**Pedestrian flow rate** - The number of pedestrians passing a point per unit of time, usually expressed as pedestrians per 15 min or pedestrians per minute.

**Pedestrian queuing area** - Places such as elevators, transit platforms, and street crossings, in which pedestrians stand temporarily, while waiting to be served.

**Pedestrian space** - The average area provided for pedestrians in a moving pedestrian stream or pedestrian queue, in square meters per pedestrian.

**Pedestrian start-up time** - The time for a platoon of pedestrians to get under way following the beginning of the Walk interval, expressed in seconds.

**Pedestrian walking speed** - The average walking speed of pedestrians, in meters per second.

**Percent time-spent-following** - The average percent of total travel time that vehicles must travel in platoons behind slower vehicles due to inability to pass on a two-lane highway.

**Performance-based planning** - A way of relating agency planning and project implementation to public benefits.

**Performance measure** - A quantitative or qualitative characteristic describing the quality of service provided by a transportation facility or service.

**Period of unmet demand** - The length of time within an analysis period during which the unmet demand is greater than zero.

**Permitted plus protected** - Compound left-turn protection that displays the permitted phase before the protected phase.

Paratransit—Permitted plus protected

Permitted turn—Queue  
discharge flow

- Permitted turn** - Left or right turn at a signalized intersection that is made against an opposing or conflicting vehicular or pedestrian flow.
- Person capacity** - The maximum number of persons, in persons per hour, that reasonably can be expected to be carried past a given point on a highway or transit right-of-way during a given time period, under specified operating conditions, without unreasonable delay, hazard, or restriction.
- Phase** - The part of the signal cycle allocated to any combination of traffic movements receiving the right-of-way simultaneously during one or more intervals.
- Planning application** - A use of capacity analysis to estimate the level of service, the volume that can be accommodated, or the number of lanes required, using estimates, HCM default values, and local default values as inputs.
- Platoon** - A group of vehicles or pedestrians traveling together as a group, either voluntarily or involuntarily because of signal control, geometrics, or other factors.
- Platoon ratio** - A parameter useful in quantifying arrival type. Platoon ratio is calculated by dividing the proportion of all vehicles arriving during green by the g/C ratio of the subject movement.
- Point** - A boundary between segments, usually places at which traffic enters, leaves, or crosses a facility.
- Point-deviation service** - Public transportation service in which the transit vehicle arrives at designated stops on a prearranged schedule but does not follow a specific route.
- Potential capacity** - The capacity of a specific movement at a stop-controlled intersection approach, assuming that it is unimpeded by other movements and has exclusive use of a separate lane, in vehicles per hour.
- Precision** - The range of accurate and acceptable numerical answers.
- Prepositioning** - When one or more turning movements are necessary to occupy a lane of the lane group.
- Pretimed control** - A signal control in which the cycle length, phase plan, and phase times are preset to repeat continuously.
- Prevailing condition** - The geometric, traffic, and control conditions during the analysis period.
- Principal arterial** - A major surface street with relatively long trips between major points, and with through-trips entering, leaving, and passing through the urban area.
- Progression adjustment factor** - A factor used to account for the effect of signal progression on traffic flow; applied only to uniform delay.
- Protected plus permitted** - Compound left-turn protection at a signalized intersection that displays the protected phase before the permitted phase.
- Protected turn** - The left or right turns at a signalized intersection that are made with no opposing or conflicting vehicular or pedestrian flow allowed.
- Quality of service** - A performance indicator of a traveler's perceived satisfaction with the trip.
- Quantity of service** - A measure of the utilization of the transportation system.
- Queue** - A line of vehicles, bicycles, or persons waiting to be served by the system in which the flow rate from the front of the queue determines the average speed within the queue. Slowly moving vehicles or people joining the rear of the queue are usually considered part of the queue. The internal queue dynamics can involve starts and stops. A faster-moving line of vehicles is often referred to as a moving queue or a platoon.
- Queue carryover** - The queued vehicles left over from the analysis period due to demand exceeding capacity.
- Queue discharge** - A flow with high density and low speed, in which queued vehicles start to disperse. Usually denoted as Level of Service F.
- Queue discharge flow** - A traffic flow that has passed through a bottleneck and is accelerating to the free-flow speed of the freeway.

**Queue storage ratio** - The parameter that uses three parameters (back of queue, queued vehicle spacing, and available storage space) to determine if blockage will occur.

**Ramp** - A short segment of roadway connecting two traffic facilities.

**Ramp junction** - A short segment of highway along which vehicles transfer from an entrance ramp to the main roadway or from the main roadway to an exit ramp.

**Ramp meter** - A traffic signal that controls the entry of vehicles from a ramp onto a limited access facility; the signal allows one or two vehicles to enter on each green or green flash.

**Ramp roadway** - See *Ramp*.

**Ramp segment** - See *Ramp*.

**Ramp-freeway terminal** - The roadway segment over which an entrance or an exit ramp joins the mainline of a freeway.

**Ramp-street terminal** - The roadway segment over which an entrance or an exit ramp joins with a surface street.

**Ramp-weave segment** - A weaving segment formed by a one-lane entrance ramp followed by a one-lane exit ramp joined by a continuous auxiliary lane.

**Random positioning** - Through vehicles can use any lane of the subject lane group.

**Rank** - The hierarchy of right-of-way among conflicting traffic streams at a two-way stop-controlled intersection.

**Rapid bus** - A bus that operates on an exclusive or reserved right-of-way permitting higher speeds. On limited access roads it can include reverse lane operations.

**Rapid transit** - Rail systems operating on exclusive right-of-way, i.e., heavy rail or metro.

**Real-time model** - A model that keeps pace with actual time.

**Recreational vehicle** - A heavy vehicle, generally operated by a private motorist, for transporting recreational equipment or facilities; examples include campers, boat trailers, and motorcycle or jet-ski trailers.

**Red time** - The period, expressed in seconds, in the signal cycle during which, for a given phase or lane group, the signal is red.

**Residual queue** - The unmet demand at the end of an analysis period, resulting from operation while demand exceeded capacity.

**Roadside obstruction** - An object or barrier along a roadside or median that affects traffic flow, whether continuous (e.g., a retaining wall) or not continuous (e.g., light supports or bridge abutments).

**Roadway characteristic** - A geometric characteristic of a street or highway, including the type of facility, number and width of lanes (by direction), shoulder widths and lateral clearances, design speed, and horizontal and vertical alignments.

**Roadway occupancy** - The proportion of roadway length covered by vehicles, used to identify the proportion of time a roadway cross section is occupied by vehicles. Because it is easier to measure in the field, roadway occupancy is used as a surrogate for density in control systems.

**Rolling terrain** - A combination of horizontal and vertical alignments causing heavy vehicles to reduce their speed substantially below that of passenger cars but not to operate at crawl speeds for a significant amount of time.

**Roundabout** - An unsignalized intersection with a circulatory roadway around a central island with all entering vehicles yielding to the circulating traffic.

**Route-deviation service** - A public transportation service that operates along a public way on a fixed route but not on a fixed schedule. It is a form of paratransit.

**Running speed** - The distance a vehicle travels divided by running time, in kilometers per hour.

**Running time** - The portion of the travel time during which a vehicle is in motion.

**Rural** - An area with widely scattered development and a low density of housing and employment.

Queue storage ratio—Rural

Saturation flow rate—  
Simple left turn  
protection

**Saturation flow rate** - The equivalent hourly rate at which previously queued vehicles can traverse an intersection approach under prevailing conditions, assuming that the green signal is available at all times and no lost times are experienced, in vehicles per hour or vehicles per hour per lane.

**Saturation headway** - The average headway between vehicles occurring after the fourth vehicle in the queue and continuing until the last vehicle in the initial queue clears the intersection.

**Sawtooth loading area** - A bus bay design with the curb indented in a sawtooth pattern, allowing buses to enter and exit bus bays independently of other buses. Often used at transit centers.

**Segment** - A portion of a facility on which a capacity analysis is performed; it is the basic unit for the analysis, a one-directional distance. A segment is defined by two endpoints.

**Semiactuated control** - A signal control in which some approaches (typically on the minor street) have detectors, and some of the approaches (typically on the major street) have no detectors.

**Service area** - (1) The jurisdiction in which a transit property operates; (2) the geographic region in which a transit system either provides service or is required to provide service.

**Service coverage** - See *Coverage*.

**Service flow rate** - The maximum hourly rate at which vehicles, bicycles, or persons reasonably can be expected to traverse a point or uniform segment of a lane or roadway during a given time period (usually 15 min) under prevailing roadway, traffic, environmental, and control conditions, while maintaining a designated level of service; expressed as vehicles per hour or vehicles per hour per lane.

**Service frequency** - The number of transit units (vehicles or trains) on a given route or line, moving in the same direction, that pass a given point within a specified interval of time, usually 1 h; see also *Headway*.

**Service measure** - A specific performance measure used to assign a level of service to a set of operating conditions for a transportation facility or service.

**Service time** - The average time that a vehicle on the subject approach is serviced at an all-way stop-controlled intersection, depending on arrival rates of the opposing and conflicting approaches.

**Service volume** - The maximum hourly rate at which vehicles, bicycles, or persons reasonably can be expected to traverse a point or uniform segment of a roadway during an hour under specific assumed conditions while maintaining a designated level of service.

**Shared-lane capacity** - The capacity of a lane, in vehicles per hour, at an unsignalized intersection that is shared by two or three movements.

**Shock wave** - The compression wave that moves upstream through traffic as vehicles arriving at a queue slow down abruptly, or the decompression wave of thinning traffic that moves downstream from the point of a capacity reduction on a freeway.

**Shoulder** - A portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, emergency use, and lateral support of the subbase, base, and surface courses.

**Shoulder bypass lane** - A portion of the paved shoulder opposite the minor-road leg at a three-leg intersection, marked as a lane for through traffic to bypass vehicles that are slowing or stopped to make a left turn.

**Side street** - See *Minor street*.

**Signalization condition** - A phase diagram illustrating the phase plan, cycle length, green time, change interval, and clearance time interval of a signalized intersection.

**Simple left turn protection** - A signal phasing scheme that provides a single protected phase in each cycle for a left turn.

**Simple weaving segment** - A segment formed by a single merge point followed by a single diverge point.

**Simulation model** - A computer program that uses mathematical models to conduct experiments with traffic events on a transportation facility or system over extended periods of time.

**Simulation model descriptor** - A fundamental descriptor (state variable, event, time step logic, and processing logic) used in combination with others to represent a unified and consistent simulation model.

**Single-point diamond interchange** - A diamond interchange that combines all the ramp movements into a single signalized intersection.

**Single-stream door** - A door on a transit vehicle that allows passenger flow in only one direction at a time.

**Skip-stop service** - A transit operation in which alternate units stop at alternate sets of stations on the same route. Each set consists of some joint and some alternate stations.

**Space** - See *Pedestrian space*.

**Space mean speed** - (1) The harmonic mean of speeds over a length of roadway; (2) an average speed based on the average travel time of vehicles to traverse a segment of roadway; in kilometers per hour.

**Spacing** - The distance, in meters, between two successive vehicles in a traffic lane, measured from the same common feature of the vehicles (e.g., rear axle, front axle, or front bumper).

**Specific grade** - A single grade of a roadway segment or extended roadway segment expressed in percentage.

**Speed** - A rate of motion expressed as distance per unit of time.

**Split-diamond interchange** - Diamond interchanges in which freeway entry and exit ramps are separated at the street level, creating four intersections.

**Standee** - A passenger standing in a transit vehicle.

**Start-up lost time** - The additional time, in seconds, consumed by the first few vehicles in a queue at a signalized intersection above and beyond the saturation headway, because of the need to react to the initiation of the green phase and to accelerate.

**Static flow model** - A mathematical model in which the traffic flow rate is constant.

**Stochastic model** - A mathematical model that employs random variables for at least one input parameter.

**Stop time** - A portion of control delay when vehicles are at a complete stop.

**Street corner** - The area encompassed within the intersection of two sidewalks.

**Streetcar** - An electrically powered rail car that is operated singly or in short trains in mixed traffic on track in city streets.

**Study period** - A duration of time on which to base capacity analyses of a transportation facility.

**Subject approach** - The approach under study at two-way and all-way stop-controlled intersections.

**Suburban** - An area with a mixture of densities for housing and employment, where high-density nonresidential development is intended to serve the local community.

**Suburban street** - A street with low-density driveway access on the periphery of an urban area.

**System level of service** - The quality of service provided by the transportation system.

**System performance measure** - A parameter that measures the efficiency of the transportation system.

**System performance report card** - A list of measures depicting the use of the transportation system, for decision making.

**System speed** - A space mean speed, in kilometers per hour, of vehicles both in the ramp influence area and in the outer lanes of a 450-m freeway segment.

Simple weaving segment—  
System speed

Taper area—Traveler satisfaction

- Taper area** - An area characterized by a reduction or increase in pavement width to direct traffic.
- Terrain type** - See *General terrain*.
- Through vehicles** - All vehicles passing directly through a street segment and not turning.
- Time interval** - See *Analysis period*.
- Time interval scale factor** - The ratio of the total freeway entrance demands to the freeway exit counts in each time interval.
- Time mean speed** - The arithmetic average of individual vehicle speeds passing a point on a roadway or lane, in kilometers per hour.
- Time-based model** - A model in which time advances from one point to the next.
- Time-space domain** - A graphical display of a freeway facility with a horizontal scale of distance along the freeway, with traffic moving from left to right, and with the freeway divided into sections.
- Time-varying flow model** - A simulation model in which flow changes with time.
- Total delay** - The sum of all components of delay for any lane group, including control delay, traffic delay, geometric delay, and incident delay . See also *Aggregate delay*.
- Total lateral clearance** - The total width of the left side plus the right side along one direction of a roadway.
- Total lost time** - The time per signal cycle during which the intersection is effectively not used by any movement; this occurs during the change and clearance intervals and at the beginning of most phases.
- Traffic condition** - A characteristic of traffic flow, including distribution of vehicle types in the traffic stream, directional distribution of traffic, lane use distribution of traffic, and type of driver population on a given facility.
- Traffic delay** - The component of delay that results when the interaction of vehicles causes drivers to reduce speed below the free-flow speed.
- Traffic pressure** - A parameter that reflects driver aggressiveness due to heavier volumes or long delays in a confined area.
- Transit accessibility** - A measure of pedestrian, bicycle, automobile, and Americans with Disabilities Act accessibility to transit.
- Transit availability** - A measure of a transit system's capability for use by potential passengers, including the hours the system is in operation, route spacing, and accessibility for the physically handicapped.
- Transit quality of service** - The overall measured or perceived quality of transit service from the passenger's point of view.
- Transit reliability** - A measure of the time performance and the regularity of headways between successive transit vehicles that affect the amount of time passengers must wait at a transit stop as well as the consistency of a passenger's arrival time at a destination.
- Transit stop** - An area where passengers await, board, alight, and transfer between transit units (vehicles or trains). It is usually indicated by distinctive signs and by curb or pavement markings and may provide service information, shelter, seating, or any combination of these.
- Transit-supportive area** - An area with sufficient population or employment density to warrant at least hourly transit service.
- Travel speed** - The average speed, in kilometers per hour, of a traffic stream computed as the length of a highway segment divided by the average travel time of the vehicles traversing the segment.
- Travel time** - The average time spent by vehicles traversing a highway segment, including control delay, in seconds per vehicle or minutes per vehicle.
- Traveler satisfaction** - A measure of the quality of a trip from the perspective of the traveler.



**Trolleybus** - An electrically propelled bus that obtains power from an overhead wire system. The power-collecting apparatus allows the bus to maneuver in mixed traffic over several lanes.

**Truck** - A heavy vehicle engaged primarily in the transport of goods and materials or in the delivery of services other than public transportation.

**Turnout** - A short segment of a lane—usually a widened, unobstructed shoulder area—added to a two-lane, two-way highway, allowing slow-moving vehicles to leave the main roadway and stop so that faster vehicles can pass.

**Two-lane Class I highway** - A two-lane highway that generally serves long-distance trips or provides connecting links between facilities that serve long-distance trips.

**Two-lane Class II highway** - A two-lane highway that generally serves relatively short trips, the beginning and ending portions of longer trips, or trips for which sightseeing activities play a significant role in route choice.

**Two-lane highway** - A roadway with a two-lane cross section, one lane for each direction of flow, on which passing maneuvers must be made in the opposing lane.

**Two-sided weaving segment** - A weaving segment in which vehicles entering the highway approach on the right and vehicles departing the highway depart on the left, or vice versa; weaving vehicles must cross the mainline highway flow.

**Two-stage gap acceptance** - A process used by drivers entering an unsignalized intersection from the minor street and reaching the median area in a first move, then completing the entry with a second move.

**Two-way left-turn lane** - A lane in the median area that extends continuously along a street or highway and is marked to provide a deceleration and storage area, out of the through-traffic stream, for vehicles traveling in either direction to use in making left turns at intersections and driveways.

**Two-way stop-controlled** - The type of traffic control at an intersection where drivers on the minor street or a driver turning left from the major street wait for a gap in the major-street traffic to complete a maneuver.

**Unconstrained operation** - An operating condition when the geometric constraints on a weaving segment do not limit the ability of weaving vehicles to achieve balanced operation.

**Uncontrolled ramp terminal** - A ramp terminal without a traffic control device.

**Undersaturation** - A traffic condition in which the arrival flow rate is lower than the capacity or the service flow rate at a point or uniform segment of a lane or roadway.

**Uniform delay** - The first term of the equation for lane group control delay, assuming uniform arrivals.

**Uninterrupted flow** - A category of facilities that have no fixed causes of delay or interruption external to the traffic stream; examples include freeways and unsignalized sections of multilane and two-lane rural highways.

**Unit extension** - The minimum gap, in seconds, between successive vehicles moving on a traffic-actuated approach to a signalized intersection that will cause the signal controller to terminate the green display.

**Unit width flow rate** - The pedestrian flow rate expressed as pedestrians per minute per meter of walkway or crosswalk width.

**Unmet demand** - The number of vehicles on a signalized lane group that have not been served at any point in time as a result of operation in which demand exceeds capacity, in either the current or previous analysis period. This does not include the normal cyclical queue formation on the red and discharge on the green phase. See also *Initial queue* and *Residual queue*.

**Unsignalized intersection** - An intersection not controlled by traffic signals.

**Upstream** - The direction from which traffic is flowing.

**Urban** - An area typified by high densities of development or concentrations of population, drawing people from several areas within a region.

Trolleybus—Urban

Urban street—Zone

- Urban street** - A street with relatively high density of driveway access located in an urban area and with traffic signals no farther than 3.0 km apart.
- Urban street class** - A category of urban street based on functional and design categories.
- Urban street segment** - A length of urban street (in one direction) from one signal to the next, including the downstream signalized intersection but not the upstream signalized intersection.
- Utility** - A measure of the value a traveler places on a trip choice.
- Utility equation** - A mathematical function for evaluating the use of highway facilities; the numerical values depend on the attributes of the travel options and on the characteristics of the traveler.
- Validation** - Determining whether the selected model is appropriate for the given conditions and for the given task; it compares model prediction with measurements or observations.
- Variability** - The probability of congestion or a confidence interval for measures of congestion (intensity, duration, and extent).
- Vehicle capacity** - (1) The maximum number of passengers that a transit vehicle is designed to accommodate comfortably, seated and standing; also known as normal vehicle capacity or total vehicle capacity; (2) the maximum number of vehicles that can be accommodated in a given time by a transit facility.
- Volume** - The number of persons or vehicles passing a point on a lane, roadway, or other traffic-way during some time interval, often 1 h, expressed in vehicles, bicycles, or persons per hour.
- Volume to capacity ratio** - The ratio of flow rate to capacity for a transportation facility.
- Walkway** - A facility provided for pedestrian movement and segregated from vehicular traffic by a curb, or provided for on a separate right-of-way.
- Wave speed** - The speed at which a shock wave travels upstream or downstream through traffic.
- Weave type** - A classification scheme that categorizes weaving configuration into one of the three types (Types A, B, C).
- Weaving** - The crossing of two or more traffic streams traveling in the same direction along a significant length of highway, without the aid of traffic control devices (except for guide signs).
- Weaving configuration** - The organization and continuity of lanes in a weaving segment, which determines lane-changing characteristics.
- Weaving diagram** - A schematic drawing of flows in a weaving segment, used in analysis.
- Weaving flow** - The traffic movements in a weaving segment that are engaged in weaving movements.
- Weaving length** - The length from a point on the merge gore at which the right edge of the freeway shoulder lane and the left edge of the merging lane are 0.6 m apart to a point on the diverge gore at which the edges are 3.7 m apart.
- Weaving segment** - A length of highway over which traffic streams cross paths through lane-changing maneuvers, without the aid of traffic signals; formed between merge and diverge points.
- Weaving width** - The total number of lanes between the entry and exit gore areas, including the auxiliary lane, if present.
- Work zone** - A segment of highway in which maintenance and construction operations impinge on the number of lanes available to traffic or affect the operational characteristics of traffic flowing through the segment.
- Zebra-striped crosswalk** - A crosswalk painted with diagonal stripes at an unsignalized intersection, in which pedestrians have the right-of-way.
- Zone** - A geographic aggregation defined by land use, which generates trips within a corridor.