

Term	Definition
median opening	A gap in a median provided for crossing and turning traffic.
median strip	A dividing strip designed or developed to separate vehicles travelling in opposite directions.
median strip parking area	A parking area on or in a median strip.
medium goods vehicle	<i>See</i> goods vehicle
medium trailer	<i>See</i> trailer
megatexture	A surface characteristic relating to pavement defects and 'waviness', having wavelength components from 50 mm to 500 mm.
melting point	The temperature at which a substance liquefies.
merging (traffic control)	The converging of separate streams of traffic into a single stream. (<i>See also</i> filtering and weaving)
mesh	<ol style="list-style-type: none"> 1 The clear spacing of wires or the like in a woven sieve. The mesh indicates the aperture size and is designated in millimetres for sizes 1 m and above, and in micrometres for sizes less than 1 mm. 2 Factory-made mesh sheets or rolls of plain hard-drawn steel wire, consisting of longitudinal wires with cross wires welded to them, for use as a reinforcement for concrete. (<i>See also</i> fabric)
metered access	A system of allowing vehicles to enter a highway or road only when a control mechanism allows it. The mechanism can, therefore, control traffic by allowing vehicles to enter only when traffic permits (<i>See also</i> access control)
microsurfacing	A bituminous slurry surfacing, usually containing polymer, that is capable of being spread in variably thick layers for rut-filling and correction courses, and for wearing course applications requiring good surface texture.
microtexture	A surface characteristic with a texture wavelength of less than 0.5 mm.
mid-block capacity	The capacity of a road between intersections.
milling	Removing the surface of a pavement (typically 25 to 75 mm in depth) with a machine equipped with a transverse rotating cutter drum. (<i>See also</i> milling machine, planer)
milling machine	<i>See</i> planer
mineral aggregate	<i>See</i> aggregate
mineral filler	<i>See</i> filler
minimum change	The termination of a green aspect in a traffic signal controller, which occurs upon the expiration of the initial running period.
minimum path	That route of travel between two points which has the least accumulation of impedance.
minimum running period	<i>See</i> initial running period
minimum turning path	The path of a designated point on a vehicle making its sharpest turn.

Term	Definition
minimum turning radius	The radius of the minimum turning path of the outside of the outer front tyre of a vehicle. (<i>See also</i> turning circle)
misfire	The failure of an explosive charge to explode.
mitre drain	A drain constructed at an angle to its discharge channel, usually to drain subgrades or pavements.
mix	The proportions of ingredients in a batch of concrete or mortar or asphalt.
mix design (slurry)	The designed portion of component materials comprising the bituminous slurry.
mixing grade emulsion	An emulsion normally used for making cold mix to be stockpiled.
mixing plant	The equipment used to manufacture asphalt, concrete, basecourse materials, etc.
mixing time, dry	The time during which all the aggregates and filler are being mixed together in the pugmill of a batch mixing plant without the binder.
mixing time, total	The sum of dry and wet mixing times.
mixing time, wet	The time during which the binder is mixing with the aggregate in the pugmill of a batch plant.
mixing time (batch mixers)	The mixing time for each batch, measured from the time all the ingredients are in the mixing drum until the time mixing at the specified rate, after specified revolutions, ceases.
MMAT	Monthly mean (minimum) air temperature.
MMS	<i>See</i> maintenance management system
mobile work (traffic control)	Work that entails vehicles moving progressively along the roadway at speeds significantly lower than other traffic, with all signs and devices being either vehicle mounted or regularly moved along the road.
modal choice	Choice on the use of different forms of transport related to individual, business or household characteristics and the travel parameters of the competing modes.
modal choice model	<i>See</i> model
modal interchange	A transport node of a major nature, which has a facility where people can readily change from one mode of transport to another. (<i>See also</i> interchanging <i>and</i> public transport nodes)
modal split	Describes the percentage of people or goods on different forms of transport. NOTE: For example, the percentage of people using private cars as opposed to public transport, or the percentage of freight that is forwarded by rail as opposed to road transport.
mode	Method of transport, e.g. motor vehicle travel (as driver or passenger), bus, light rail and walking.
model	Mathematical description of a situation that uses data on past and present conditions to make predictions about the effects of changes.

Term	Definition
aggregate model	<ol style="list-style-type: none"> 1 A mathematical model of travel behaviour related to a grouping of individual travel characteristics, usually for a zone or district. 2 A combination of disaggregate models for the purpose of preparing estimates for future states.
behavioural model	Mathematical model of travel characteristics based on the use of behavioural costs.
competing opportunities model	Mathematical model for distributing trips based on the assumption that the trips originating in any zone will distribute themselves to other zones in proportion to the probability that the trips have not found another destination at that trip length.
deterministic model	Model that produces a mathematically exact solution.
disaggregate model	Mathematical model of travel behaviour related to individual traveller characteristics.
gravity model	Mathematical model of trip distribution based on the premise that trips produced in any given area will distribute themselves in accordance with the accessibility of other areas and the number of opportunities they offer.
growth factor model fratar distribution furness distribution	Method of distributing trip ends based on the growth factor of the origin and destination and on the given trip interchanges.
Hanna models	Model of the emission and dispersion of motor vehicle pollution.
heuristic model	Model that produces an approximate solution.
interactance model	Variation of the gravity model using a series of curves to represent trip interaction between land uses of varying intensity.
intervening opportunities model	Mathematical model for distributing trips based on the assumption that the trips originating in any zone will distribute themselves to other zones in proportion to the probability that the trips have not found a prior destination and that they will be as short as possible.
Lowry model	Land-use model that divides employment into basic (export oriented) and non-basic (population serving) types. Households and non-basic employment are located relative to a distance function and land availability constraint.
modal choice model	Mathematical model used to allocate trips between zones to each of the reasonable nodes of transport available, which is normally applied on the basis of the relationship between disutilities for each mode and the socio-economic characteristics of the likely users.
regional growth model	Land-use model used to estimate and distribute growth in population, employment, etc.
regression model	Numerical relationship between a set of variables, the algebraic form of which is generally known, but the actual values of the coefficients are derived through regression analysis.

Term	Definition
travel model	System of mathematical relationships which can be used to estimate the volume and distribution of travel likely to occur in a given set of circumstances.
trip-distribution model	Mathematical relationship used to distribute trips between zones on the basis of certain parameters such as spatial separation and relative attractiveness.
trip-generation model	Mathematical model of trip generation based on the premise that trips generated by a zone will be related to the land-use parameters of that zone.
modification	The improvement of the properties of a material by the addition of small quantities of an additive, such as lime or cement, by the stabilization process.
modified asphalt	An asphalt in which the binder has been modified by the incorporation of polymers, resins, rubber, or other material, to achieve specific physical properties.
modified bitumen	Bitumen with enhanced performance achieved by the incorporation of polymers, resins, rubber or other material to achieve specific physical properties. NOTE: Oxygen and oxidation ‘catalysts’ as well as fibres and inorganic powders are not considered to be bitumen modifiers.
modified materials	Granular materials to which small amounts of stabilizing agent have been added to improve their performance (e.g., by reducing plasticity) without causing a significant increase in structural stiffness. NOTE: Modified materials are considered to behave as unbound materials.
modified pavement	An improved pavement with a base layer comprising modified materials.
modulus	<i>See</i> resilient modulus
modulus of subgrade reaction	The slope of the straight line drawn from the origin to a given point on the stress-strain curve obtained from a plate bearing test. (<i>See also</i> plate bearing test)
modulus of subgrade reaction	The slope of the straight line drawn from the origin to a given point on the stress deflection curve obtained from a plate bearing test.
moisture content water content	The quantity of water that can be removed from a material by heating to 105°C till no further significant change in mass occurs. Usually expressed as a percentage of the dry mass.
moisture content (MC)	The quantity of water that can be removed from a material by heating to 105°C until no further significant change in mass occurs, usually expressed as a percentage of the dry mass.
molecular structure	Physical form that the polymer chains take up relative to each other.
monkey	The weight used in a pile hammer.
monolithic	Forming a single structural unit without permanent joints.

Term	Definition
monolithic (concrete)	<ol style="list-style-type: none"> 1 A single uniform homogeneous element of concrete between planned joints and/or edges. 2 A section of concrete of uniform composition and properties, which will act as a single structural element.
monorail	Transport mode (normally elevated) with a vehicle that runs along a single rail or beam that functions as a guideway.
Moore algorithm	Procedure used to find the minimum path between two zones in a network, which is the basis of most computer programs used to build paths.
mortar	<ol style="list-style-type: none"> 1 A mixture of cement and/or lime and sand with water. 2 A mixture of fine aggregate with an epoxy compound or other binder.
mortar cube test	A test of the strength of a cement of the Portland type, made by determining the compressive strength of a cube of mortar made with this cement and standard sand, under standard conditions.
mosaic	A composite aerial photograph made by combining individual smaller photographs.
motorway	A defined class of road for which certain activities or uses are restricted or prohibited by legislative provision. (<i>See also</i> expressway and freeway)
mountable kerb	A kerb designed to define the edge of a carriageway but which may be mounted or driven across, if the need arises, with little to no risk of damage to a vehicle.
movement diagrams	A set of diagrams depicting movements of traffic and/or pedestrians permitted in each phase of the traffic signal cycle.
mud tank	<i>See</i> sump
mudguard	<i>See</i> wheel guard
mudjacking	A process that improves the support of a concrete slab by pumping in cement, mud or bitumen.
mulch	A layer of vegetable material, in general obtained from straw or leaves, to protect seeds on unprepared soil and encourage the formation of humus, thereby protecting the seeds and plants during their growth.
mulching	The application of plant residues or other suitable material to the land surface to conserve moisture, hold the soil in place, aid in establishing plant cover, increase infiltration and minimize temperature fluctuations.
multigrade bitumen	A bituminous binder the properties of which are less sensitive to temperature than those of conventional bitumens.
multilane	Two or more running lanes in one direction.

Term	Definition
multilane road	For a driver, means a one-way road, or a two-way road, with two or more marked lanes (except bicycle lanes) that are — <ul style="list-style-type: none"> (a) on the side of the dividing line or median strip where the driver is driving; and (b) for the use of vehicles travelling in the same direction.
multileg intersection multiway intersection	An intersection having five or more legs. (<i>See</i> Figure A7, Appendix A)
multilevel interchange	An interchange in which there are mutually crossing carriageways at three or more different levels. (<i>See</i> Figure A8, Appendix A)
multimodal	Combination of two or more modes of travel into a single journey. NOTE: For example, a multimodal journey occurs when a person drives a car to a commuter parking area and catches a train.
multipath assignment	<i>See</i> assignment
multiple hiring	Hiring of the vehicle by more than one passenger travelling to different destinations but in the same direction with the consent of the original hirer.
multiple manoeuvre	<i>See</i> compound manoeuvre
multiple regression	<i>See</i> regression analysis
multiple unit	Number of locomotives coupled together or a passenger train with more than one power car, with each power unit responding to the control equipment in the cab of the leading unit.
multirouting	Practice of scheduling a bus onto more than one route in the course of one-half of a shift.
multistage stressing	Prestressing done in stages as construction progresses.
multiway intersection	<i>See</i> multileg intersection
N	
name sign	An information sign giving the name of a road, bridge, river, town, etc.
NARC	National Asphalt Research Committee.
NATA	National Association of Testing Authorities.
national highway	A road that is a major link between adjacent capital cities.
natural asphalt	A naturally occurring mixture in which bitumen is associated with inert mineral matter, e.g. Trinidad Lake Asphalt.
nature strip	An area between a road (except a road-related area) and adjacent land, but does not include a bicycle path, footpath, or shared path.
NBSRG	National Bituminous Surfacing Research Group.
needs study	Study of the infrastructure of a community to ascertain what is necessary to bring it to a predetermined standard.

Term	Definition
negative friction	The friction or cohesive forces exerted on a pile by settling soil and tending to increase the load in the pile.
neighbourhood	Portion of a suburb or other urban area, defined by geographical boundaries (natural and man-made) and having common community services. Neighbourhood may contain one or more precincts. (<i>See also</i> pedestrian precinct)
net present value (NPV)	The present value of a future benefit less the present value of its future cost.
network	A schematic mathematical model of a road or public transport system, which contains a link-by-link description of the routes covered by a public transport system and the speed and capacities of road links.
public transport network transit network	System of lines and links showing actual rail, bus and ferry routes, used for modelling purposes. It includes route maps, service frequency, travel distance, travel times and speeds. The computer model represents all these factors.
road network highway network	System of links and nodes designed to represent the system of roads on the ground, which includes link characteristics and turning restrictions or prohibitions.
spider network	System of linkages connecting centroids without respect to the physical road layout, except that major barriers to travel are usually recognized. Such networks could be used for model calibration work and broad 'strategic analysis'.
network description	Computer record that describes the transport system in terms of time, distance and link and node attributes.
no exit road	A street or road open at one end only.
no-build alternative	Planning option of not building a proposed transport project such as a new road, but improving the already existing transportation system. The no-build alternative could include widening an existing road or increasing public transport services. (<i>See also</i> do-nothing alternative)
node	<ol style="list-style-type: none"> 1 Road network junction point in traffic studies. 2 Numbered point representing an intersection, rail station, bus stop, ferry wharf or zone centroid in road and public transport networks.
no-fines concrete	Concrete made with cement, aggregate of 9.5 mm to 19.0 mm size, and water.
nominal gauge	<i>See</i> nominal size
nominal size	<ol style="list-style-type: none"> 1 A size designation of an aggregate, which gives an indication of the largest particle size present. 2 The size designation of an aggregate being the whole number above the size of the smallest sieve through which 80% to 100% of the aggregate passes.

Term	Definition
nominal size (bituminous slurry)	A designation for a bituminous slurry, chosen to give an indication of the largest aggregate particles typically present.
non-ionic bitumen emulsion	A type of bitumen emulsion in which the suspended bitumen particles have no electrical charge.
non woven (nonwoven) (non-woven)	A fabric obtained by mechanical and/or chemical and/or thermal binding of fibres arranged in layers excluding knitting and weaving.
non-car-owning household	Household of which no member has regular use of a car.
non-cohesive soil	A soil in which the fine fraction is lacking, resulting in a loss of the cohesive bonds associated with this fraction.
non-directional detector	A detector capable of being actuated by vehicles proceeding in either direction.
non-structural shoulder (concrete)	A shoulder that is not considered to reduce stresses in the structural pavement sufficient to decrease the base thickness. it is debonded from the concrete base (except for minimal tie bars in the case of a concrete non-integral shoulder).
non-user benefits	<i>See</i> economic analysis, indirect benefits
normal control vehicle	Motor vehicle in which the centre of the steering wheel is not in the forward quarter of the vehicle's total length.
normal cross section	The carriageway cross section where it is not affected by superelevation or widening.
NPV	<i>See</i> net present value
nth highest hour	The hourly traffic volume that is exceeded during (N-1) hours in the course of a year.
nuclear density meter (NDM)	<i>See</i> nuclear meter
nuclear densometer	<i>See</i> nuclear meter
nuclear meter	An instrument for the non-destructive determination of the density and moisture content of material using a radioactive source for its operation.
number plate survey	<i>See</i> survey
O	
obstruction(s)	Obstacle(s) that could impede the movement of traffic.
obstruction markings	Patterns and devices used to emphasize the presence of physical obstructions, in or near the carriageway, that constitute hazards to traffic.
obvert	The highest portion of the internal surface of a culvert or arch.
occlusion	A closed space in an aggregate, e.g. a vesicle.
off ramp	<i>See</i> exit ramp

Term	Definition
off tracking	The radial distance between the turning paths of the centre of the front axle and the centre of the rear axle.
off-centre operation	<i>See</i> tidal flow
offlet drain	A diversion from a table drain to a point where the water will dissipate.
off-peak hour	A representative hourly flow indicative of the average flow outside the peak period.
offset	<ol style="list-style-type: none"> 1 Horizontal distance measured at right-angles to a datum or reference line. 2 In a traffic signal system, the difference in time between the same phasing point (usually the start of the green) in the operation of adjacent signals.
offset peg	Recovery peg usually placed on an offset square to a straight line or on a radial line or a curve.
OGA	<i>See</i> open-graded asphalt
OGEM (NZ)	Open-graded emulsion mix.
OMC	<i>See</i> optimum moisture content
omnibus	<i>See</i> bus
on ramp	<i>See</i> entry ramp
one-size aggregate	<i>See</i> single-size aggregate
one-way road	A road or street on which all vehicular traffic travels in the same direction.
one-way street	<i>See</i> one-way road
one-way traffic	Vehicular traffic, the movement of which is restricted to one direction.
OPC	Ordinary Portland Cement. (<i>See also</i> GP)
open-graded asphalt (OGA)	A bituminous mix using aggregate containing only small amounts of fine material, and providing a high percentage of air voids.
open grade asphalt mix	<i>See</i> open-graded asphalt
open subsoil drain	An open drain provided for the collection and removal of subsoil water rather than surface water.
open-graded mix	<i>See</i> open-graded asphalt mix
operating speed	The highest overall speed, exclusive of stops, at which a driver can safely travel on a given section of road under the prevailing traffic conditions.
operational delay	The delay caused by interference between components of traffic.
opposing right turns	Right-turning movements in opposite directions, which take place during the same signal phase.
opposing traffic	The traffic stream travelling in the opposite direction to the vehicle or vehicles under consideration.

Term	Definition
optimum cycle time	The calculated fixed-time signal cycle length for a given set of approach volumes and turning movements at an intersection for which a chosen performance index (delay, number of stops, queue length, etc.) is minimized.
optimum phasing	The phasing arrangement of traffic signals, which achieves the best capacity at a signalized intersection.
optimum speed	The average speed at which traffic must move to attain the maximum traffic volume on a carriageway.
origin	Point or area in which a trip starts.
origin/destination survey	The measurement and study of an aspect of traffic movement.
orthotropic	A material having different stiffness properties in two or more directions at right-angles to each other, e.g. wood.
outcrop	The exposure, at the surface, of a material (usually rock) differing from its surroundings.
outer connection	The outer of two interchange ramps in a quadrant of an interchange, and generally a direct connection. (<i>See also</i> loop) (<i>See</i> Figure A6, Appendix A)
outer separator	The portion of a road separating a through carriageway from a service road or frontage road.
outer wheelpath	The wheelpath furthest from the centre-line in a traffic lane. (<i>See also</i> wheelpaths)
outlet control	The condition where relatively high water level at the outlet of a culvert governs the discharge characteristics. (<i>See also</i> inlet control)
outputs	The goods or services that are provided by a service provider.
over vertical curve	<i>See</i> summit curve
overall time	<i>See</i> travel time
overall travel speed	The total distance traversed by a vehicle divided by the total time required including all traffic delays.
overall width	Maximum distance measured across the body, including wheel guards, but excluding equipment and hardware such as rear vision mirrors, signalling devices and side-mounted lamps.
overburden	The soil, or other mineral matter, that has to be removed to gain access to the underlying material.
over dimensional route	Route available for use by over dimensional vehicles. (<i>See also</i> truck route.)
over dimensional vehicle	Vehicle, due to its mass or dimensions, precluded by legislation from using public roads without following a prescribed route or obtaining a special permit from the relevant traffic authority.
overflow queue residual queue	The number of vehicles left in a queue at the expiry of green time for that queue.
overhead lane control device	An overhead lane control sign or signal.