**Surface Slope** The inclination of the water surface, expressed as change of elevation per unit of slope length; the sine of the angle that the water surface makes with the horizontal. The tangent of that angle is ordinarily used, with no appreciable error resulting except for the steeper slopes.

Surface Treatment. One or more applications of bituminous material and cover aggregate or thin plant mix on an old pavement or any element of a new pavement structure.

Surface Veil A surfacing mat used in the outer surrounding layer of an fiber reinforced polymer (FRP) pole to produce a smooth surface and to protect the underlying material from weathering degradation.

Surface Waves Asphalt surfaces have two types of waves short and long. Short waves, also referred to as Ripples or Auger Shadows, are generally 0.3 to 0.9 m (1 to 3 ft) apart, with 0.45 to 0.60 m (1 1/2 to 2 ft). Long waves are considerably farther apart.

Surrogate M&C Variable A characteristic of materials and/or construction that can be used to substitute for a performance-related M&C variable. For example, concrete compressive strength can be a surrogate for concrete flexural strength.

Suspended Sediment Discharge The rate at which the dry weight of sediment passes a section of a stream (or river) or is the quantity of sediment (as measured by dry weight or by volume) that is discharged in a given time.

Suspended Sediment Load Sediment that is supported by the upward components of turbulent currents in a stream and that stavs in suspension for an appreciable length of time.

**Sustainable Development** Maximizing the capability to recycle components of the infrastructure and minimizing the use of nonrenewable resources.

**Swale** A wide, shallow ditch usually grassed or paved and without well-defined bed and banks. A slight depression in the ground surface where water collects and may be transported as a stream. Often vegetated and shaped so as not to provide a visual signature of a bank or shore.

Sway Bracing Transverse vertical bracing between truss members.

**Swell** A hump in the pavement surface that may occur over a small area or as a longer, gradual wave; either type of swell can be accompanied by surface cracking.

Swept Path Width The amount of roadway width that a vehicle covers in negotiating a turn that is equal to the amount of off-tracking plus the width of the vehicle

**Swing Bridge** Bridge type in which a portion of the span rotates about a vertical axis.

**Switch** 1) The movable rails of a turnout that divert the wheels of passing rolling stock to the preselected track. 2) To move rail cars from one place to another within a defined territory such as an industry, a yard, or a terminal. 3) A locomotive used for switching cars in yards and terminals and usually built to carry all its weight on the driving wheels; also Switcher.

**Switch Stand** A device for the manual operation of switches or of movable center points.

**Synthetic Hydrograph** 1) A hydrograph determined from empirical rules. Usually a hydrograph based on the physical characteristics of the basin. 2) A graph developed for an ungaged drainage area based on known physical characteristics of the watershed basin

System Car Railroad car owned by the railroad on which the car is located

**System Planning** A procedure for developing an integrated means of providing adequate facilities for the movement of people and goods, involving regional analysis of transportation needs and the identification of transportation corridors involved



**Tack Coat** 1) An application of bituminous material to an existing surface to provide bond with a superimposed course. 2) A bituminous material that is applied to an old roadway surface, creating a bond between the old and the new surface.

**Tackle** A rope-and-pulley block or a system of ropes and pulleys used to lower, raise, or move a heavy object.

Tactical Air Navigation (TACAN) A radio transmitter facility in the en route electronic navigation system, transmitting a pulse train UHF modulated radio wave, utilized by compatible airborne receiver/interrogator equipment to derive bearing relative to the facility in terms of reference pulse/ modulation coincidence and distance in terms of time delay between interrogation and receipt of reply.

**Tactile Warning** Change in surface condition providing a tactile cue to alert pedestrians with vision impairments of a potentially hazardous situation.

**Tailwater** The depth of flow in the channel directly downstream of a drainage facility.

**Takeoff Distance** The distance from the start of the takeoff roll to the point where the aircraft is 11 m (35 ft) above the takeoff surface

**Takeoff Run** The distance from the start of takeoff roll to the point where the aircraft leaves the ground.

**Tamper** A power-driven machine for compacting ballast under ties.

Tandem Axle Load The total load transmitted by two or more consecutive axles, the centers of which may be included between parallel transverse vertical planes spaced more than 1.0 m (3.3 ft) and not more than 2.4 m (7.9 ft) apart, extending across the full width of the vehicle.

**Tangent** Any straight portion of a railway alignment.

**Tank Car** A car used for carrying liquids.

**Taper Area** An area characterized by a reduction or increase in pavement width to direct traffic

**Tare Weight** 1) The weight of any empty freight car. 2) The weight of a container and the material used for packing.

**Tariff** 1) The freight weight on a shipment. 2) A schedule of shipping rates and regulations placed on file by common carriers.

**Taut** Tight or snug (opposite of slack).

**Taxi** To operate an airplane under its own power on the ground, except that movement incident to actual takeoff and landing.

**Taxicab** A vehicle that has a passengercarrying capacity similar to that of an automobile and that serves primarily as a demand-responsive public passenger vehicle for hire; it may be a converted automobile or one specially built for taxicab service

**Team Track** A track on which cars are placed for transfer of freight between cars and highway vehicles.

Tearing (Streaks) The pulling of the asphalt mix under the screed of the paver. There are three types of tear mark in the asphalt mat: (a) in the center of the lane. (b) on the outside edges, and (c) across the full lane width.

Temperature Gradient Variation of temperature of the concrete over the cross section.

**Temporary Barrier** A barrier that is used to prevent vehicular access into construction or maintenance work zones and to redirect an impacting vehicle in order to minimize damage to the vehicle and injury to the occupants while providing worker protection.

**Tender Mix** A tender mix is an HMA mixture that is internally unstable and will not properly support the weight of the compaction equipment when hot and will move under the applied compactive effort.

**Tendon** A steel element, such as wire, bar, or strand, or a bundle of such elements, used to impart a prestress to concrete.

**Terminal** 1) A transportation facility for the picking up, transfer, or discharge of passengers or goods. 2) A device designed to treat the end of a rigid obstacle or longitudinal barrier. A terminal may function by decelerating a vehicle to a safe stop within a relatively short distance, permitting controlled penetration of the vehicle behind the device, containing and redirecting the vehicle, or a combination of the above.

**Terminal Area** Airspace in which departure/approach control service or airport traffic control service is provided.

**Terminal or Switch Line** A company performing switching service or furnishing terminal trackage, or both, and that may incidentally conduct a regular freight or passenger service.

**Terminal Time** 1) The time required for passengers at a trip end to unpark and to park, including any necessary walking time. 2) For rail vehicles, the time allowed at a terminal between arrival and departure for turning vehicles, recovery of delays, and preparing for the return trip. 3) The time

required for a passenger to pass through a terminal when there is a change of mode.

**Terminus** Either end of a route.

**Test Vehicle** A commercially available. production-model vehicle or an approved surrogate vehicle used in a crash test to evaluate the impact performance of a test article.

**Tetrahedron** A device with four triangular sides that indicates wind direction.

**Tetrapod** 1) Precast concrete shape with extending legs randomly placed like riprap for channel protection. 2) Bank protection component of precast concrete consisting of four legs joined at a central joint, with each leg making an angle of 109.5 degrees with the other three

**Thalweg** 1) The line or path (such as a rill) connecting the lowest flow points along the bed of a channel. The line does not include local depressions. 2) The path that very low flows would follow in proceeding down a stream, river, swale, or channel, 3) The line extending along a channel profile that follows the lowest elevation of the bed.

Theoretical Time The yard and end-ofline dispatch times throughout the day that are entered into the train-control computer memory for purposes of comparison with actual performance.

**Thermal Force** The change in temperature that creates stresses and strains due to the thermal expansion and contraction of bridge materials.

Thermal Mapping A process of measuring pavement temperatures over a roadway network in order to create profiles of pavement temperatures under various atmospheric and pavement conditions.

Third Rail An electric conductor located alongside the running rail from which power is collected by means of a sliding contact mechanism attached to the truck of electric cars

**Threat Assessment** Study that identifies and evaluates potential threats on the basis of factors such as capabilities, intentions, and past activities. This assessment represents a systematic approach to identifying potential threats before they materialize

**3C Process** A process for planning transportation services that is required by the Federal Aid Highway Act and the Federal Transit Act in urbanized areas The three Cs stand for comprehensive, continuing, and cooperative, which characterize the planning process.

Three-Leg Intersection An intersection with three legs, where two roads join.

Three-Second Gust Wind Speed The average wind speed measured over an interval of three seconds.

**Threshold** The beginning of that part of the runway usable for landing.

Through-Girder Span A girder system where the roadway is below the top flange.

Through Highway or Street Every highway or portion thereof on which vehicular traffic is given preferential rightof-way, and at the entrances to which vehicular traffic from intersecting highways is required by law to yield right-of-way to vehicles on such through highway in obedience to either a stop sign or a yield sign, when such signs are erected.

**Throughput** Traffic or volume of passengers or vehicles passing a point or series of points during a given period of time.

**Through Rate** A rate applicable from point of origin to destination. A through rate may be either a joint rate or a combination of two or more rates.

**Through Routing** The practice of joining the ends of radial bus routes to travel through downtown rather than have each

route turn back in the downtown and return to its origin.

**Through Train** A freight train operating between major classification vards and serving nonlocal traffic.

Through-Truss Span A truss system where the roadway is located near the bottom chord and where a top-chord lateral system is provided.

Tidewater Port A port located on an ocean.

**Tie** The wooden or concrete support upon which rails rest and that holds them in gauge.

**Tie Bar** A deformed steel bar or connector embedded in the concrete across a joint to prevent separation of abutting slabs.

**Tied Arch** An arch in which the horizontal thrust of the arch rib is resisted by a horizontal tie.

**Tie-Down** A mechanical device that prevents relative movement normal to an interface.

**Tie Plate** 1) A flanged plate between a rail and a tie that provides the rail with a uniformly firm foundation, helps hold trackage, and prevents the rail from cutting into the tie under the heavy impact of trains. 2) A plate interposed between a rail or other track structure and a tie. 3) A plate used to connect components of a member.

**Timber** 1) Any lumber not allocated to another class, together with nails, bolts, and other fastenings. Measurement of lumber shall be based on nominal sizes for the lengths in place. 2) Lumber that is nominally 5.0 in. or more in least dimension

**Time Off** The clock time recorded when an operator has completed the duties required after the pull-in time.

**Time of Opening** The total elapsed time between the signal to stop traffic and the signal to release the stopped traffic.

**Time of Operation** Normal length of time for opening the bridge after all span locks are released and any lifts of wedges are withdrawn.

**Time of Vessel Passage** The time specified by the owner for the bridge to remain in the open position to allow for vessels passing through the channel.

**Time On** The clock time recorded when an operator begins to make preparations for pull-out time.

**Time Point** A point on a line or route for which time that vehicles are scheduled to pass is specified (on a bus system it is usually the arriving time; on a rail system, it is the leaving time).

**Timetable** 1) The authority for the movement of regular trains subject to the rules; it contains classified schedules with special instructions relating to the movement of trains and engines. 2) A listing of the times at which vehicles are due at specified time points.

**T Intersection** A three-leg intersection in the general form of a T.

**Tire Braking Force** The negative longitudinal force resulting from braking torque application.

**Tire Braking Force Coefficient** The maximum value of tire braking force coefficient that occurs prior to wheel lockup as the braking torque is progressively increased.

**Tire Braking Force Coefficient Slide** The value of the braking force coefficient obtained on a locked wheel.

**Tire Forces** The external forces acting on the tire by the road.

**Tire Load** The portion of the gross vehicle weight imposed upon the static tire at the

time of weighing, expressed in units of mass, due only to the vertically downward force of gravity acting on the total mass of the static vehicle.

**Tire-Wet Pavement Interaction, Zone Concept** A division of the load-bearing surface of a moving pneumatic tire into three basic zones—noncontact, partial contact, and contact.

**Title** The evidence of a person's right to property or the right itself.

**Toe** That portion of a stream cross section where the lower bank terminates and the channel bottom or the opposite lower bank begins.

**Token** A stamped piece, usually metal, equal in value to the flat fare or standard one-zone fare on a transit system.

Tolerance 1) The defined limits of allowable (acceptable) departure from the true value of a measured quantity.

2) The limiting value(s) placed on a quality characteristic to define its absolute conformance boundaries such that nothing is permitted outside the boundaries. A distinction between tolerance limits and specification limits is that tolerance limits apply to process control and specification limits to statistical acceptance. 3) Limits that define the conformance boundaries for a manufacturing, service, or construction operation.

**Toll Facility** A facility open to traffic only upon payment of a direct toll or fee.

**Ton** A short ton; 2,000 pounds avoirdupois.

Tonne 2,205 pounds.

**Torque** A force that produces or tends to produce rotation or torsion such as the torque that an automobile engine delivers to the drive shaft.

**Torsion** Twisting perpendicular to the longitudinal axis of a member.

**Tort** A private or civil wrong committed upon the person or property independent of contract. The elements of every tort action are (a) existence of legal duty from defendant to plaintiff, (b) breach of duty, and (c) damage as proximate result.

**Total Head** The sum of three components: (a) the elevation head, which is equal to the elevation of the point above a datum, (b) the pressure head, which is the height of a column of static water that can be supported by the static pressure at the point, and (c) the velocity head, which is the height at which the kinetic energy of the liquid is capable of lifting the liquid.

**Total Operating Revenue** The sum of regular passenger revenue, charter revenue, and other miscellaneous revenues such as advertising, concessions, etc.

**Total Sediment Discharge** The sum of suspended sediment discharge and bed load discharge or the sum of bed material discharge and wash load discharge of a stream or river.

Total Storm Management (TSM) The process of selecting and applying the appropriate tools and strategies to deal successfully with winter storm conditions.

**Towage Service** The use of tugboats to assist large commercial vessels in maneuvering into or out of berths and slips.

**Towboat** The motorized vessel used primarily on the inland and intracoastal waterway systems to propel barges.

**Track** 1) An assembly of rails, ties, and fastenings over which cars, locomotives, and trains are moved. 2) The width of a wheeled vehicle from wheel to wheel and usually from the outside of the rims.

Track Apron Railroad tracks along the waterfront edge of a wharf or pier designated for direct transfer of cargo between ship and car.

Track Car A self-propelled rail car (e.g., burro crane, highway rail car, detector car, weed burner, tie tamper) that may or may not operate signals or shunt track circuits.

Track Crossing A structure used where one track crosses another at grade and consists of four connected frogs.

Track Schedule A document issued once each week that describes the departments and personnel that are scheduled to occupy any portion of track during the following week.

**Track Signal** A device that is located near the track and interconnected with the signal system in such a way that the brakes of a train that passes a red signal will be applied and the train will be brought to a stop.

**Trackwork** The rails, switches, frogs, crossings, fastenings, pads, ties, and ballast or track-support slab over which transit cars are operated.

**Tractive Force** 1) The force exerted by powered equipment (e.g., a locomotive) as measured for statistical purposes at the rim of driving wheels. Also referred to as Tractive Effort. 2) The drag on a stream bank caused by passing water that tends to pull soil particles along with the streamflow.

**Tractor** A powered unit capable of propelling itself and towing other (unpowered) units on a highway.

Tractor/Trailer Angle The angle between adjoining units of a tractor/semitrailer when the combination unit is placed into a turn. This angle is measured between the longitudinal axes of the tractor and trailer as the vehicle turns.

**Traffic** The movement of vehicles. pedestrians, ships, or planes through an area or along a defined route.

Traffic-Actuated Signal A traffic control signal whose right-of-way interval selection and interval times are varied by

the demands of vehicular traffic for those intervals or movements.

**Traffic Assignment** A process by which trips described by mode, purpose, origin, destination, and time of day are allocated among the paths or routes in a network according to one of a number of flowdistribution models

Traffic Assignment Zone A division of a study area that is represented by a centroid and used for traffic assignment purposes.

**Traffic Barrier** A device used to prevent a vehicle from striking a more severe obstacle or feature located on the roadside or in the median or to prevent crossover median accidents. As so defined, there are four classes of traffic barriers: roadside barriers. median barriers, bridge railings, and crash cushions

Traffic Control Device A sign, signal, marking, or other device placed on or adjacent to a street or highway by authority of a public body or official having iurisdiction to regulate, warn, or guide traffic

**Traffic Island** A defined area between traffic lanes for control of vehicle movements or for pedestrian refuge. Within an intersection, a median or an outer separation is considered an island.

**Traffic Operation Plan** A program of action designed to improve the utilization of a highway, street, or highway and street network, through the application of the principles of traffic engineering.

**Traffic Pattern** The traffic flow that is prescribed for aircraft landing at, taxiing on, and taking off from an airport. The usual components of a traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach.

**Traffic Sign** A device mounted on a fixed or portable support whereby a specific message is conveyed by means of words or symbols, officially erected for the purpose of regulating, warning, or guiding traffic.

**Traffic Signal** Any power-operated traffic control device, other than a barricade warning light or steady burning electric lamp, by which traffic is warned or directed to take some specific action. Also referred to as Highway Traffic Signal or Traffic Control Signal.

Traffic Signal Preemption A technique for altering the sequence or duration of traffic signal phasing using vehicle detection in order to provide preferential treatment for buses and emergency vehicles. Also referred to as Signal Preemption.

**Traffic Signal Priority** Special treatment provided to transit vehicles at signalized intersections

**Traffic Volume** The number of persons or vehicles passing a point on a lane, roadway, or other travelway during some time interval, often one hour, expressed in vehicles, bicycles, or persons per hour.

**Trailer** A vehicle designed for carrying persons or property and drawn by a motor vehicle that carries no part of the weight and load of the trailer

Trailer (Trail Car) A rail car not provided with motive power that is used in multipleunit trains operated by rail motor cars.

**Train** 1) Two or more vehicles physically connected and operated as a unit. 2) An engine or more than one engine coupled with or without cars.

**Tramp** A vessel that does not operate on a published schedule, serving different ports in response to tenders of cargo.

## **Transcribed Weather Broadcast**

(TWEB) Broadcasts provided at selected flight service stations that include meteorological and NOTAM data recorded on tapes and broadcast continuously over the low-frequency navigational aids and certain VOR and VORTAC stations.

**Transfer** 1) A slip of paper issued to a passenger that provides the right to change from one transit vehicle to another according to certain rules. 2) To change from one transit vehicle or mode to another vehicle or mode.

**Transfer Center** Centralized point for loading and unloading passengers usually in the central business district and equipped with shelter and schedule information.

Transfer Fee A fee collected for transferring from one transit route to another.

**Transfer Length** The length over which the pretensioning force is transferred to the concrete by bond and friction in a pretensioned member.

**Transit Capacity** The number of passengers that can be transported over a given section of a transit line in one direction during a given time period (usually one hour) under prevailing traffic conditions

**Transit Center** A facility where transit vehicles converge, enabling passengers to transfer among routes and services. Transit centers are generally located off the street and provide passengers with a shaded or enclosed waiting area, seats, drinking fountains, and transit information.

**Transit Dependent** Having to rely on public transportation to meet one's travel needs. Refers also to Captive Transit Rider.

**Transition** A section of barrier between two different barriers or, more commonly, where a roadside barrier is connected to a bridge railing or to a rigid object such as a bridge pier. The transition should produce a gradual stiffening of the approach rail so vehicular pocketing, snagging, or penetration at the connection can be avoided.

Transit Shed An enclosed structure on a wharf or pier providing protection and storage for cargoes.

Transit System The facilities, equipment, personnel, and procedures needed to provide and maintain public transportation service.

Transitway The term used to describe an HOV lane or facility. In some cases, it refers to bus-only facilities, but in other cases, it may be used on a facility open to all HOVs.

**Translation** Horizontal movement of the bridge in the longitudinal or transverse direction.

**Transponder** 1) An airborne radar beacon receiver-transmitter that receives radio signals from all interrogators on the ground and that selectively replies with a specific reply pulse or pulse group only to those interrogations being received on the mode to which it is set to respond. 2) An electronic transmitter/responder that is attached to the object to be identified and, when appropriate signals are received, transmits information as radio signals to a reader. Often referred to as a Tag.

**Transportation** Travel from one place to another of goods and people by public or private means.

Transportation Brokerage Centralized operation of transportation services that may include general community services as well as social service transportation.

**Transportation Demand Management** (TDM) The operation and coordination of various transportation system programs to provide the most efficient and effective use of existing transportation services and facilities. TDM is one category of Transportation System Management (TSM) actions.

**Transportation Improvement Program** (TIP) A list of transportation projects for which funding to be sought over a three- to five-year period. It describes transportation improvements to be funded by public funds from all sources, with a budget for each project. The first year's transportation projects are called the annual element.

**Transportation Plan** A program of action to provide effectively for present and future demands for movement of people and goods. This program necessarily includes consideration of the various modes of travel

**Transportation System** A coordinated system made up of multimodal services serving a common purpose, the movement of people and goods.

**Transportation System Management** (TSM) Actions that improve the operation and coordination of transportation services and facilities to effect the most efficient use of the existing transportation system. Actions include operational improvements to the existing transportation system, new facilities, and demand-management strategies.

**Transverse** The horizontal direction normal to the longitudinal axis of the bridge.

**Transverse Cracking** 1) Cracks in the pavement that are predominantly perpendicular to the direction of traffic. 2) Any transverse crack that is longer than 2 m, excluding sawcuts, that projects within 45 degrees of perpendicular to the pavement centerline

Transverse Fissure A progressive crosswise fracture starting from inside the head of the rail.

Transverse Load Horizontal design force that is applied perpendicular to a railing or barrier system.

**Transverse Profile** The vertical deviations of the pavement surface from a horizontal reference perpendicular to the lane direction

Transverse Reinforcement Reinforcement used to resist shear, torsion, and lateral forces or to confine concrete in a structural member. The terms stirrups and web reinforcement are usually applied to transverse reinforcement in flexural members, and the terms ties, hoops, and spirals are applied to transverse reinforcement in compression members.

**Trash Rack** 1) A device used to capture debris, whether floating, suspended, or rolling and saltating along the bed, before it enters a drainage facility. 2) A grid or screen across a stream or entrance to a drainage facility designed to catch debris.

**Traveled Way** The portion of roadway for the movement of vehicles, exclusive of shoulders.

**Travel Speed** The speed over a specified section of highway, being the distance divided by travel time.

**Travel Time** The time of travel, including stops and delays, except those off the traveled way.

**Traversable Slope** A slope from which a motorist will be unlikely to steer back to the roadway but may be able to slow and stop safely. Slopes between IV:3H and IV:4H generally fall into this category.

**Tread Plates and Castings** Tread plates or castings for segmental girders and track girders for rolling-lift bridges, together with their shims and connecting bolts.

Tree A record that shows the shortest routes and travel times from a given zone to each node in the highway network (the tracing of routes has a strong resemblance to the trunk and branches of a tree).

**Trip** 1) A one-way movement of a person or vehicle between two points for a specific purpose. 2) A mechanical lever or block signal that, when in the upright position, activates a train's emergency braking system.

**Trip Matrix** An array of the number of trips made between zones.

Tripper (Extra) A short piece of work that cannot be incorporated into a full day's run, usually scheduled during peak hours.

**Trip Purpose** The primary reason for making a trip. Typical trip purposes include work, shopping, medical, recreational, and school.

**Trip Sheet** 1) A sheet on which operators and trainmen record their day's work and receipts for a run. 2) A record kept of the information required by ordinance or by rule for a shift worked by the driver of a public passenger vehicle in demandresponsive service; may also be used in line-haul or charter service.

**Trip Table** A table that shows the number of trips between zones classified by mode, purpose, time period, type of vehicle, or other category.

**Trolleybus** An electric bus propelled by an electric motor that draws power through a trolley from an overhead electric conductor (trolley wire); the power-collection apparatus (trolley pole) is designed to allow the bus to maneuver in mixed traffic over several lanes and pick up passengers at the street curb.

**Trolley Pole** A swiveling, spring-activated pole attached to an electric car, bus, or locomotive that holds the trollev in contact with the overhead conductor, which is usually a trolley wire.

**Truck** 1) The assembly of parts consisting of wheels and axles with necessary springs and structural members that support the main body of a rail car at each end. 2) A wheeled highway freight vehicle also referred to as Goods Vehicle.

Truck Apron The optional outer, mountable portion of the central island of a roundabout between the raised.

nontraversable area of the central island and the circulating roadway.

**Trucking Platform** A platform on which freight, baggage, mail, etc., are handled to and from cars.

Truck-Mounted Attenuator (TMA) An energy-absorbing device attached to the rear of a truck or utility vehicle. A TMA is designed to bring a vehicle impacting the rear of the truck to a controlled stop.

Truck Tractor A motor vehicle designed for drawing other vehicles, but not for a load other than a part of the weight of the vehicle and load drawn.

**Trumpet Interchange** A three-way interchange with no crossing movements, featuring one 270-degree loop ramp opposite the terminating roadway and a semidirectional ramp following the loop to the outside

**Truncated Domes** Small domes with flattened tops used as tactile warning at transit platforms and at other locations where a tactile warning is needed.

Truss A structural support, usually vertical or horizontal, composed of framework that is often arranged in triangles.

**Truss Bridge** A bridge involving a system of structural members joined at their ends to form a stable framework.

**Tugboat** A motorized vessel used primarily in deep-draft harbors to maneuver larger vessels between the navigation channel and a dock

**Tunnel** A horizontal or near horizontal opening in soil excavated to a predesigned geometry by tunneling methods exclusive of cut-and-cover methods

**Turbidity** Muddy water, having sediment or foreign particles stirred up or suspended. Measured by the Jackson Turbidity Unit (JTU) or Nephelometric Turbidity Unit (NTU). NTU is current practice.