

APPENDIX D

Glossary

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Glossary of Transportation Planning Terms

ANNUAL AVERAGE DAILY TRAFFIC (AADT): The total number of vehicles passing a given location on a roadway over the course of one year, divided by 365 (days per year). Requires a permanent traffic recorder to measure annual total.

ARTERIAL: Class of street serving major movements of traffic not served by freeways.

AVERAGE DAILY TRAFFIC (ADT): The average number of vehicles passing a specified point during a 24-hour period, calculated from an approximation of AADT based on a limited number of 24-hour counts and adjusted for known variation in levels of travel by month of year and day of week.

BASE YEAR: The year selected to which the major portion of data is related.

CAPACITY: The maximum number of vehicles that can pass over a given section of a lane or roadway in one direction (or in both directions for a 2-lane or 3-lane highway) during a given time period under prevailing roadway and traffic conditions. It is the maximum rate of flow that has a reasonable expectation of occurring. The terms "capacity" and "possible capacity" are synonymous. In the absence of a time modifier, capacity is an hourly volume. The capacity would not normally be exceeded without changing one or more of the conditions that prevail. In expressing capacity, stating the prevailing roadway and traffic condition under which the capacity is applicable is essential.

CENSUS BLOCK: The smallest geographic unit used by the U.S. Census Bureau as basic tabulation units in urbanized areas with populations of 10,000 or more.

CENSUS TRACT: Small areas into which large cities and adjacent areas are divided for the purpose of providing comparable small area population and housing census tabulations.

CENTROID: An assumed point in a TAZ that represents the origin or destination of all trips to or from the TAZ. Generally, it is the center of trip ends rather than a geometrical center of the zonal area.

CORRIDOR: A group of linear transportation facilities established by common characteristics, such as proximity, direction, or functional classification.

DESTINATION: The TAZ in which a trip terminates.

FEDERAL-AID URBAN BOUNDARY: The boundaries of the area which encompass the entire urban place as designated by the U.S. Census Bureau plus that adjacent area as agreed upon by local officials in cooperation with the State.

FHWA: Federal Highway Administration.

FTA: Federal Transit Administration.

FISCAL YEAR (FY): For Federal and State of Michigan agencies and the Jackson MPO, the time period beginning October 1st and ending September 30th of the subsequent calendar year.

FORECASTING: The process of determining the future values of land use, socio-economic, and trip making variables within the study area.

FUNCTIONAL CLASSIFICATION: An identification and categorization of segments of the street and highway system according to the character of service they provide.

GRAVITY MODEL: A 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 opportunities they offer.

GROWTH FACTOR: A ratio of future trip ends divided by present trip ends.

JACTS: Jackson Area Comprehensive Transportation Study.

JATA: Jackson Area Transportation Authority.

JCDOT: Jackson County Department of Transportation.

LEVEL OF SERVICE (LOS): The term used to indicate the quality of service provided by a facility under a given set of operating conditions.

LOCAL STREET: A street intended to only provide access to abutting properties. In traffic assignment, any link having a centroid as one node.

LONG RANGE TRANSPORTATION PLAN (LRTP): Determination of transportation facilities/improvements that are projected for the next 20 or more years.

MAJOR STREET OR HIGHWAY: An arterial highway used primarily for traffic movement and secondarily for providing direct access to abutting properties, with intersections at grade and with traffic control and geometric design features used to expedite safe traffic movement.

MANUFACTURING: A category of employment which includes establishments engaged in the mechanical or chemical transformation of substances into new products. These establishments are usually described as plants, factories, and mills. Production is usually carried on for the wholesale market, inter-plant transfer, or for industrial purposes. Seldom is there direct sale to the domestic consumer. For this study, manufacturing includes construction, direct manufacturing, transportation, communication, and public utility operations.

METROPOLITAN PLANNING ORGANIZATION (MPO): The organization designated by the Governor that is responsible, together with the State, for comprehensive transportation planning according to 23 U.S.C. 134, 23 U.S.C. 104(f)(3), and 49 U.S.C. 1602(a)(2) and (c)(a)1, 49 U.S.C. 1603(a), and 49 U.S.C. 1064(g)(1) and (1). This organization shall be the forum for cooperative decision-making by principal elected officials of general local government.

MICHIGAN TRANSPORTATION ECONOMIC DEVELOPMENT FUND (TEDF): Special fund of transportation monies for projects promoting economic development. There are several categories of funds available, all with specific requirements and restrictions. Administered at the MDOT, calls for projects are not on a predetermined schedule.

MODAL SPLIT: The term applied to the division of person trips between public and private transportation. The process of separating person trips by the mode of travel.

MODE OF TRAVEL: Means of travel such as vehicle driver, vehicle passenger, transit passenger, or non-motorized (i.e., bicycling, walking).

MODEL: A mathematical formula that expresses the actions and interactions of the elements of a system in such a manner that the system may be evaluated under any given set of conditions: i.e. land use, economic, socio-economic, and travel characteristics.

ORIGIN: The location of the beginning of a trip or the TAZ in which a trip begins.

PEAK HOUR: The one-hour period during which the maximum amount of travel occurs. Generally, there is a morning peak hour and an afternoon peak hour. Traffic assignments may be made for each period if desired.

PERSON TRIP: A trip made by a person using any mode for any purpose.

POPULATION: Refers to the number of persons residing in a designated area.

PRODUCTIONS: The number of home-based trip ends in the TAZ of residence. For all non-home based trips, productions are synonymous with origins.

R2PC: Region 2 Planning Commission. A regional planning organization that is responsible for transportation planning in the rural areas of Jackson, Lenawee, and Hillsdale Counties as well as the small urban areas (less than 50,000 population) of Hillsdale-Jonesville and Adrian-Tecumseh-Clinton.

RIGHT-OF-WAY: A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

ROUTE: The combination of street and freeway sections connecting an origin and destination. In traffic assignment, a continuous group of links connecting centroids that normally require the minimum time to traverse.

STUDY AREA: The area delineated for the purpose of data collection by a transportation study. This area contains the central city and surroundings, which will become urbanized in 20 to 30 years and is the area for which forecasts of travel are made. The entirety of Jackson County comprises the Jackson MPO.

TRAFFIC ANALYSIS ZONE (TAZ): The basic analysis unit into which all socio-economic, land use, and trip generation used to determine origin and destination of travel are summarized. Their development is based on land use, human activity, natural boundaries, and compatibility with the street system.

TRANSPORTATION IMPROVEMENT PROGRAM (TIP): A staged multi-year program of planned transportation improvement projects.

TRAVEL DEMAND FORECAST MODEL (TDFM): A series of computer programs used to analyze and evaluate motor vehicle travel on a highway network. It uses various data on the location and characteristics of a population and its employment to predict travel demand, which can ultimately be used to identify highway deficiencies.

TRAVELTIME: The time required to travel between two points, including the terminal time at both ends of the trip.

TRIP: A one-direction movement which begins at the origin at the start time, ends at the destination at the arrival time, and is conducted for a specific purpose.

TRIP DISTRIBUTION: The process by which the movement of trips between TAZs is estimated. The data for each distribution may be measured or estimated by a growth factor process, or by a synthetic model.

TRIP END: Either a trip origin or a trip destination.

TRIP GENERATION: A general term describing the analysis and application of the relationships which exists between the trip-makers, the urban area, and the trip making. It relates to the number of trip ends in any part of the urban area.

TRIP PURPOSE: The reason for making a trip; normally, one of ten possible purposes. Each trip may have a purpose at each end, such as going from home to work.

TRIP TABLE: A table showing trips between TAZs - either directionally or total two-way. The trips may be separated by mode, purpose, time period, vehicle type or other classifications.

URBAN AREA: A statistical geographic entity consisting of a densely settled core created from census blocks and contiguous qualifying territory that together have at least 2,000 housing units or 5,000 persons.

URBAN AREA BOUNDARY: The boundaries of the area that encompass the entire urban place as designated by the U.S. Census Bureau, plus an adjacent area that is agreed upon by local officials in cooperation with the State.

URBANIZED AREA (UA): An urban area containing a city (or twin cities) with population of 50,000 or more. This includes the central city plus the surrounding area which meets certain criteria of population size or density, as designated by the U.S. Census Bureau, and not within any other urbanized area. As defined by minimum population density, the urbanized area can include the central city, suburbs, and the closely settled fringe of development.

VOLUME: The number of vehicles using a facility.

VOLUME TO CAPACITY RATIO (V/C): A measure of the level of service on a facility.

ZONE: A portion of the study area, delineated as such for particular land use and traffic analysis purposes. There may be two types of zones used in the traffic assignment process:

- 1) **Survey Zone** – A subdivision of the study area which is used during the data collection phase of the study.
- 2) **Traffic Analysis Zone (TAZ)** – A subdivision of the study area.