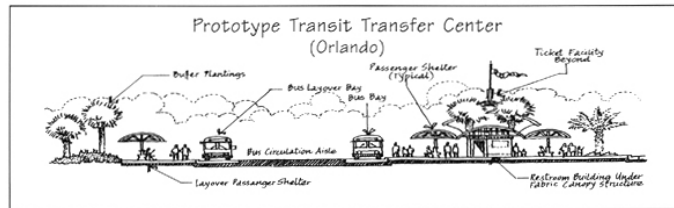


TRANSPORTATION & LAND USE INNOVATIONS

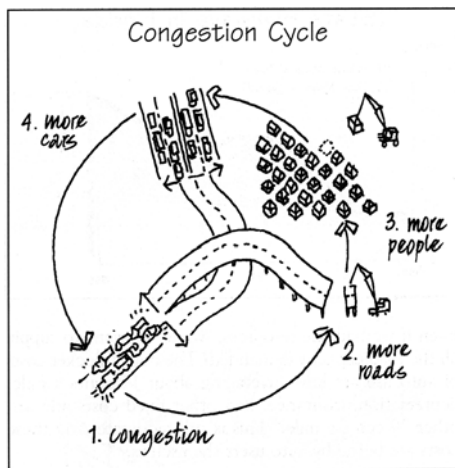


Ewing, Reid (1997). *Transportation & Land Use Innovations: When you can't pave your way out of congestion*. Florida Department of Community Affairs. Planners Press, American Planning Association, Chicago, Illinois.

ABSTRACT

This handbook introduces community leaders to an understanding of transportation mobility, offering suggestions to reduce congestion, automobile dependence, and vehicle miles of travel.

Chapter 1: Introduction introduces the idea that it is essential to the health and welfare of our communities to reduce the need for automobile travel. Vehicle miles of travel (VMT) have been rising at an alarming rate and it has become clear that we cannot build roads fast enough to keep up with VMT.

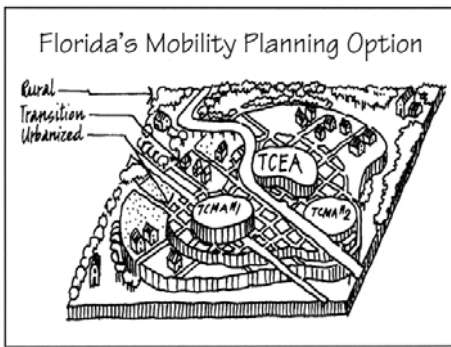


Chapter 2: New Approach to Mobility. Growth management in Florida was not working, as sprawl continued, along with auto-dependence. Changes in regulations and laws at the state and national level in the early 1990s allowed mobility to be defined in terms of multimodal transportation, not just highways.

Chapter 3: Elements of Mobility Planning. Visioning to set the future a community wants, considering land use as a part of transportation planning, developing a street network design with arterials and collectors, and using urban design to develop pedestrian and transit friendly shopping centers are all mobility tools to consider when addressing the needs to reduce congestion.

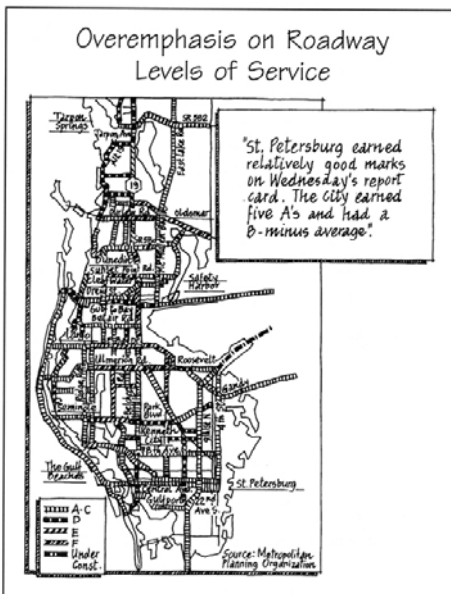
Chapter 4: Land Planning for Accessibility. The emphasis is to contain urban sprawl. Proactive land planning can help reduce the need for so much auto travel. Employment centers promote ridesharing and transit. Destination accessibility affects ability to link trips. Regional planning can promote an increase in urban density. Community planning focuses on convenience shopping, recreation, and school trips to keep these trips off of the regional road network. Activity centers promote fewer trips of which many can be accessed by foot.

Chapter 5: Travel Demand Management (TDM). Employers have a critical role in providing financial and other incentives for carpooling, vanpooling, flextime, telecommuting and other travel demand management strategies.



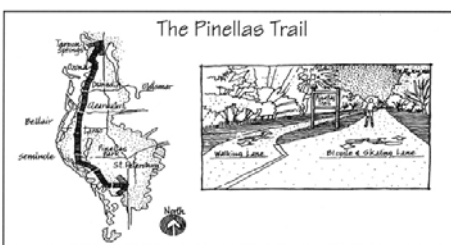
Employers can be mobilized through development agreements, transportation management organizations, or trip reduction ordinances. Free parking promotes single occupancy vehicles. Ridesharing incentives such as preferential parking, guaranteed ride home, or extra time off can influence employee mode choices.

Chapter 6: Transportation System Management (TSM) discusses traffic engineering measures to “squeeze” more vehicle-carrying capacity out of roadways. There is no restraint on auto use such as in TDM measures. Re-striping to create additional travel lanes, removing medians for turn or additional lanes, and removing on-street parking are TSM strategies. Access management is a key to making this work, since travel speeds fall and accident rates rise, as the number of access points increase along a roadway. Intersection control is another key element in TSM and ranges from signals, grade separation, and roundabouts that are based on gap acceptance. Intelligent transportation system (ITS) technologies can also improve the flow of traffic.



Chapter 7: Enhanced Transit Service. Transit corridors and transit nodes are all a part of Transit Oriented Development (TOD). High densities and mixed uses help to support increased transit use. Transit use depends on access to transit and the availability of park-and-ride lots. Bike carriers on transit give people options to get to/from their destinations. Timed transfers improve transit use. Exclusive bus lanes and high-occupancy vehicle (HOV) lanes give transit users an advantage over auto drivers during peak times. Non-traditional services for suburban densities can include vanpools, dial-a-ride, contract taxi services, and minibuses.

Chapter 8: Pedestrian-and Bicycle-Friendly Design. Americans walk and bike for recreation and commuter under the right conditions. Walking and bicycling can replace the auto on short trips. Mixed land use and clustered development help promote this mode. It is important to keep the ped/bike trips safe by providing wide enough sidewalks and refuge islands for crossing wide streets. Bicycle lanes in the street are preferred by bicyclists. Keep bike/ped trips interesting. Human-scaled blocks and buildings are also important. Traffic calming keeps traffic moving at moderate speeds which is more bike/ped friendly.



Chapter 9: Beyond Speed—the Next Generation of Performance Measures. Level of service has long been the criteria for roadways. Energy conservation, neighborhood protection, downtown revitalization, and other public purposes are now competing with the desire for free-flowing traffic. Containment of sprawl is particularly important. Performance measures now include not only level of service but also delay, volume/capacity ratio (VC ratio), travel time/speed, vehicle hours of travel, vehicle occupancy, accident rate, duration of peak period, and vehicle-miles traveled (VMT). The land use/transportation system is a system of interdependent elements. Evaluation measures will reflect the efficiency of both land use patterns and transportation networks, they will reflect the multimodal nature of the system, and they will treat the links and nodes as part of the system.

SUMMARY

The material in this handbook is basic yet useful, particularly for planning community transportation systems.

KEY WORDS *Applicable Project Delivery Stages:* Administration, Agency, Planning, Design

Applicable Transportation Professionals: Administrators, Highway Engineers, Planners, Landscape Architects

Applicable Transportation Modes: Vehicular, Bicycle, Transit

Transportation Topics: Accessibility, Access Management, Arterials, Bicycle Friendly, Busway, Carpool, Collectors, Congestion Management Systems, Developer Agreements, Flex Time, Grade Separation, Growth, HOV lanes, Incentives, Linkages, Metro Rail, Mini Bus, Mixed Use, Multimodal, Networks, Nodes, Park-and-Ride Lot, Pedestrian Friendly, Regional, Ridesharing, Round-Abouts, Signal Progression, Sprawl, System Wide, Telecommuting, Traffic Calming, Transit, Transit Corridors, Transit Oriented Development, Transit Nodes, Transit Service Areas, Transit Transfer Center, Transportation Management Organizations, Travel Demand Management, Van Pool, Visioning