Neighborhood Mobility.

The Idea of Mobility for Neighborhoods and Neighbors.

The concept of the home-based trip has many facets. There are many purposes for a trip ranging from work, school, shopping, recreation and entertainment. Trips occur at all times of the day though recognizing the peak hour is important. Trips are made with a variety of modes; the single occupancy personal vehicle being the favorite. Trips are made by people from all socio-economic circumstances; and people have different physical capacities.

A mobility system that works for everyone, in the extreme, has to be able to take every resident, employee and visitor to every part of the city at any time of day. Even if we focus on the home-based trip, as we will in this paper, the complexity of the analysis and the resulting system is enormous.

The analysis herein segments the home-based trips by internal and external destination; then destination by mode. The role of a neighborhood organization and its collaboration with the transportation system operators and managers is critical.

Neighborhood Organization.

Every neighborhood relies on an organization to protect and enhance its character, connections, peace and vibrancy. Whether the association is for homeowners or renters, residents need to be involved in the preservation and enhancement of their neighborhood. Where organizations don't exist, they must be established as part of the city's neighborhood planning program.

Home-based Trips Internal to the Neighborhood.

The homes, apartments and other housing types are the foundation of a "complete" neighborhood; but a neighborhood is not "complete" without its parks, schools, shopping areas and streets. The home-based trip in the ideal neighborhood has a full range of "daily need" destinations nearby, hopefully within walking or biking distance.

Dependence on support systems creates one of three outcomes; either the support system is absent and residents do without or go to extraordinary efforts to meet their daily needs, a system is available and it is expensive, or every resident needs access to a car.

West Orange Trail connects neighborhoods to main street, Winter Garden FL.

The Home-Based Trip Goal.

The goal of the city-wide system is to enable anyone in the city to safely and cheaply get from their home to anywhere in the region at any time. Trips for work, school, shopping, recreation and entertainment will happen; the system's goal is to make the trips cheap, safe and easy.

External Connections.

Every neighborhood wants to be connected and it wants to be protected. Protecting neighborhoods with cul-de-sacs or "calmed" grid systems from excessive through-traffic is always a challenge. Site specific evaluations are required to strike the right balance between connection, protection and the type of solution selected.

The Home-Based SOV Trip. The trip by car is by far the most common mode of travel; especially with the single-occupancy vehicle [SOV]. Standard analysis provides results for home-based trips on the internal neighborhood streets, access to the external street system, cut-through traffic, school crossings and internal bike/ped safety.

The Home-Based Bike/Ped Trip. Sidewalks, bike paths and trails, intersection crossings, signs and safety lighting all contribute to safe, inexpensive and easy access within the neighborhood. A **School Connection Plan** is a critical element in the neighborhood plan.

The Home-Based Transit Trip. Home-based trips using the transit system are harder. Cities with comprehensive bus service make life easier for those not having a personal vehicle or wanting to use it.

Many cities try to improve the ease of access by routing buses on local streets in disadvantaged neighborhoods; a practice not used or tolerated in established neighborhoods. The presence of frequent bus service on residential streets within the neighborhood creates noise and traffic – a trade-off that could benefit from a neighborhood conversation.

Neighborhood Bus Service.

Established neighborhoods in cities with a comprehensive bus system usually have access to bus service on the major street on the periphery of the neighborhood. Sidewalks and paths on the neighborhood streets provide safe and convenient access for pedestrians and bicyclists to bus stops or stations.

The important point is to not give up on regular bus service. While main street employees, shoppers and visitors currently travel to main street destinations using single-occupancy vehicles [SOVs], improved bus service with increased ridership will better coaches and headways can improve the travel lifestyle of these commuters, reduce greenhouse gases and reduce the need for downtown parking spaces.

The trick is for the city to believe in the usefulness of bus service for non-dependent residents. Cities that can capture commuters, students and other travelers with fixed destinations and schedules can dramatically reduce their dependence on single-occupancy vehicles – thereby reducing traffic on city streets, greenhouse gases in the atmosphere and blood pressures in local travelers.

One path for cars, bikes, school and public buses.

New Technologies Coming to the Neighborhood.

Neighborhoods will be affected by changes in mobility technologies. Autonomous vehicles will be the biggest disrupters, but there are electric vehicles, delivery bikes and small trucks, power skate boards, rideshare services and personal transit for the impaired and the elderly. With the rise of home deliveries, there will be more non-resident people in the neighborhood.
The new technologies coming to the neighborhood are:

- Autonomous vehicles will invade neighborhoods; cities can anticipate the impact on neighborhoods and get policies ready now.
- Ridesharing with Uber and Lyft along with home-deliveries from restaurants and shops are finding their way into neighborhoods; lots of "strange" people and vehicles at all times of the day. Neighborhood Watch programs need to adjust.
- Electric vehicle charging stations may become available like "gang" mail boxes for apartments and condos, large and small. City guidelines for locations and other safety specifications can be contemplated now. Single-family guidelines may also be necessary when this type of energy for autos proliferates. Electric vehicles will be a big plus.
- Bike-share racks and car-share spaces are already in the streetscape. Can these be internal to single-family neighborhoods? Apartment and condo parking areas? A stakeholder conversation convened by the neighborhood association is appropriate.
- Tech-driven pedestrian crosswalks with lights and activated signs will increase the comfort and safety of walking and running.

Dashboards for Each Neighborhood.

The neighborhood's mobility system can be a major contributor to the city's Dashboard. Real-time, accessible data on roadway, parking and transit usage will enable city management and residents to respond to congestion due to street closures for maintenance or accidents. An effective monitoring system also allows victims of accidents or crimes to receive more immediate emergency assistance.

Bike share locations near apartments.

Conclusions: Neighborhood Mobility.

The city's plan for every neighborhood has been discussed on other *CharacterTown.org* editions. The inclusion of holistic mobility considerations enhances the land use, housing, open space and conventional transportation analysis. The creative use of multiple modes for residents to make internal and external trips will enhance safe access to jobs, shopping, entertainment and recreation destinations; especially for the transit dependent population.

The real trick is to build a bus system that appeals to middle-class commuters; such a system has real community benefits.

Two good books on the subject are: ***Transportation for Livable Cities*** by Lukan R. Votic and ***Street Fight, Handbook for an Urban Revolution*** *b*y Janette Sadiki-Khan and Seth Solomona.