CHAPTER 5: TRANSIT VISION

INTRO

Public transportation, or transit, plays a significant role in the City of Champaign's multi-modal transportation system. Champaign is served by the Champaign-Urbana Mass Transit District (CU-MTD). Transit provides transportation choice for the City of Champaign and improves the quality of life for its residents. Increased transit usage benefits congestion, the environment, and health for users that walk to and from their transit stops.

CU-MTD currently provides approximately 700 hours of transit service per day with 76 peak buses and generates an average of almost 37,220 average daily boardings with a productivity of 52.8 passengers per revenue hour. This is exemplary productivity for any transit system. In comparing CU-MTD to five other areas with similar residential population and major university enrollment utilizing 2005 National Transit Database information, CU-MTD has an average of 55.8 annual boardings per capita, almost double the peer average of 28 annual boardings per capita. At the University of Illinois, there is heavy utilization by students, averaging 246 annual boardings per university student, compared to the peer average of 122.6 annual boardings per university student.

The CU-MTD transit system within the City of Champaign provides excellent service to the downtown and the University of Illinois through a system of radial routes that join at key transit centers. Getting from one outlying area to another often requires a user to first go to the central transit hub and transfer to an alternate route to get to one's destination. Continued coordination between the City of Champaign, CU-MTD, and University of Illinois will be crucial to impellent the transit vision.

ISSUES

Several issues were identified as part of the transit system analysis. Not surprisingly, most of them focused on growth and the changing development patterns toward outlying dispersed growth. They include:

- Identifying mixed-use development opportunities that can create a series of nodes to support transit throughout the City;
- Looking at opportunities for redevelopment associated with transit service;
- Locating park and ride locations;
- The need to change current routing to accommodate new growth in the community, and adjust the local bus routes over time to provide a communitywide transit system that is efficient and timely;

- Providing infrastructure that is interconnected with all modes to create a more seamless transportation system;
- Identifying additional opportunities to connect Champaign with other communities;
- Funding additional service;
- Providing consistent service, good connections, and system reliability; and
- Impact of the Southwest transit district.

TRANSIT VISION PLAN

Primary transit service within the Champaign area is provided by the CU-MTD. CU-MTD is currently preparing a Mobility Implementation Plan (MIP) which will develop a long range transit plan. Whereas the ultimate responsibility for transit is CU-MTD, one of the objectives of the land use concept plan of connected neighborhoods and nodes is to provide the density and connections to support higher frequency transit service.

The City of Champaign's Transit Vision Plan, shown in Figure 18, is designed to support the City's Connected Neighborhoods and Nodes, Land Use and Transportation Vision Plan, and the CU-MTD's Mobility Implementation Plan. This plan incorporates the mixed-use higher density development nodes that could support higher frequency transit. As party of the CU-MTD MIP process, additional transit elements will be added such as locations for park and ride facilities, and identification of express route services.

Several changes will be necessary to support the implementation of the CU-MTD's Mobility Plan. Among them are the re-orientation of the local bus service to provide local circulation and connections to activity centers, the planning and design of these centers and connecting corridors, and multi-modal integration between automobile, transit, bicycle, and pedestrian.

CONNECTED NEIGHBORHOODS AND NODES TRANSIT IMPROVEMENTS

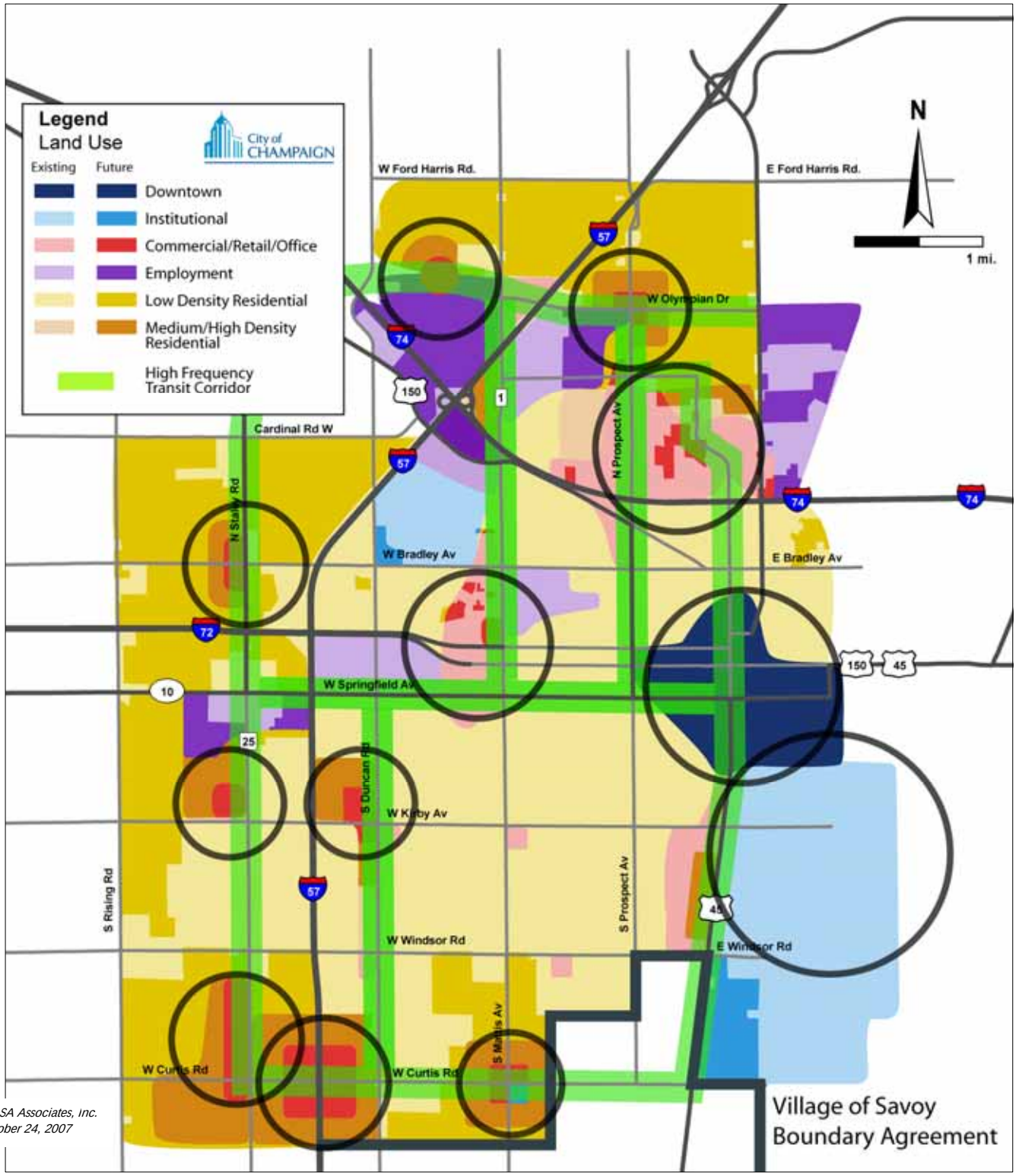
The following provides a list of transit improvements and features that should be implemented into all nodes and multi-modal corridors.

Transit Requirements for Development Nodes

In order for future node development to support transit, the node design shall include:

- A transit stop or station prominently located near the center of the node for both visibility, efficiency, and as a statement regarding the importance of transit.

FIGURE 18: TRANSIT VISION PLAN



Source: LSA Associates, Inc.
October 24, 2007

Note: High Frequency Transit Corridors will be phased in over time based on land development mix, density and travel demand.

- The transit stop/station should have at a minimum shelter, benches, lighting, trash receptacles, and real time transit arrival information.
- Intermodal connections:
    - Automobile drop-off and/or Park-n-Ride;
    - An integrated sidewalk system with the development node and transit stop/station; and
    - Bicycle path/lane connections and secure bicycle storage/lockers.

High Frequency Transit Corridors

The high frequency transit corridors are the routes targeted to connect future development nodes. It should be noted that these corridors will not initially support high frequency transit until development density within the nodes and a mix of uses occur. The mix of uses includes residential development that originates the trip and the trips destination at retail or job locations.

Whereas the primary stops and stations are located within the development nodes, stops will be located along the corridor to provide access opportunities from the residential areas along the corridors to the node attractions.

High Frequency Transit Corridor improvement guidelines and recommendations include frequency of service, transit travel times, stop amenities and operations.

Transit Service Frequency Targets for Nodes and Multimodal Corridors

Transit frequency is important for choice riders that make decisions as to whether to drive or take transit. If the service is infrequent, the choice is usually toward the automobile. As transit frequency increases, then the user may choose transit because of increased availability. The following table identifies the minimum frequency of transit service that should be targeted for Nodes and Multi-Modal Corridors.

Nodes and Multi-Modal Corridors	Transit Service Frequency (Transit Vehicles Per Hour)
Established High Density Node and Corridor	6 or greater
Emerging Node and Corridor	4 or greater
Starting Node and Corridor	2 or greater

Transit Travel Times

Transit travel time must be reduced in the multimodal transportation corridors in order for transit to be competitive with the automobile. One option to reduce transit ravel times is through exclusive bus travel lanes that are not impacted by congestion. This concept, referred to as Bus Rapid Transit (BRT), has not been proposed for any of the multimodal transportation corridors. However, to improve transit operations, queue jumper lanes are recommended when the opportunity exists along the multi-modal corridors. Queue jumper lanes are separate travel lanes that allow buses to pass queued traffic at intersections. Queue jumper lanes are often used in tandem with bus signal priority to allow buses to advance through intersections and improve route travel times.

Transit Stops and Amenities

Although nearly all bus stops for CU-MTD are marked with signage, the types of stops and amenities offered at bus stops vary greatly. In general, transit stop improvements and amenities should be based on patron demand. These improvements include installation of proper signage and paved pads, benches, covered shelters over the paved pads, landscaping, route/schedule information, trash receptacles and bicycle racks. In addition, all improvements shall be in compliance with the American Disability Act (ADA).

Note that areas planned as “nodes”, should include an even higher level of transit amenities which may include transit centers with real time route information, potential park and ride facilities, as well as structures that allow for transit operations and land uses that serve a commuting population. This is especially true for Country Fair.

Site Transit Stops in Safe Locations

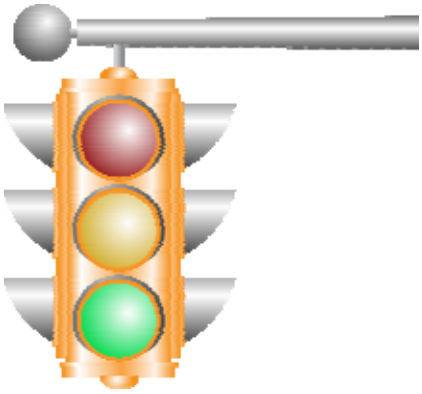
Examine existing and proposed transit stop locations to ensure they provide pedestrian and bicyclist access and are in safe locations. Locate transit stops to be in close proximity to pedestrian/ bicycle crossings.

Transit Facilities and Services

- Implement security and safety features at transit stations, park-n-ride lots, and on vehicles;
- Make modifications to bus routes per changing ridership demands;
- Implement timed-transfer points throughout the system; and
- Provide pedestrian and bicycle connections between transit facilities and adjacent neighborhoods and developments.

Transit ITS Infrastructure

As indicated in the roadway recommendations, a number of ITS applications are recommended for the multi-modal transportation corridors. Specific transit ITS applications include:



- Traffic signal preemption/priority control;
- Implement/operate transit security features at park-n-ride lots/stations and on transit vehicles;
- Disseminate real-time transit vehicle arrival/departure information to transit patrons at park-n-ride lots/stations and key transfer points at nodes; and
- Compile real-time parking space occupancy at park-n-rides.

Transit Policies and Five Year Action Plan

Policies

TP-1. Coordinate with MTD to identify strategies for providing transit to targeted development nodes from their MIP study.

TP-2. Work with MTD to recognize additional opportunities to grow the local bus system (e.g., increased frequency and coverage) and to identify corridors where transit-oriented developments would be desired.

TP-3. Coordinate site design and multi-modal access with MTD and include in City's standards and codes.

TP-4. Emphasize transit oriented design in new development at key nodes, especially at the Curtis Road interchange, at Country Fair and on Olympian Drive.

Five Year Action Plan

TA-1. Modify the City's Land Use Plan toward higher-density, mixed-use, transit-supportive land uses node at locations such as downtown and mixed-use centers.

TA-2. Modify standards and codes to require pedestrian and bicycle connections to bus stops, park and ride lots, and transit stations.

TA-3. Modify standards and codes to require new development provide street connectivity and facility design that supports transit.

Travel Demand Management

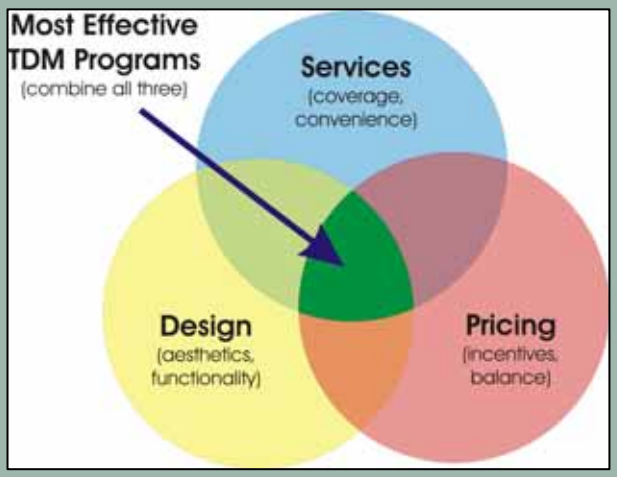
Travel Demand Management (TDM) is a general term for programs that result in a more efficient use of transportation resources. They aim to influence the demand for travel rather then focusing on the provision of transportation facilities. TDM programs can include numerous strategies that can be described in three basic categories:

- Increasing vehicle occupancy,
- Switching to alternative travel modes, and
- Affecting the time or decision to make a trip.

Each of these categories requires the modification of behavior on the part of the traveler. Increasing vehicle occupancy typically includes carpool or vanpool programs combined with ride-matching services. Parking supply and pricing strategies can also influence ridesharing activities.

Switching travelers to alternative transportation modes typically involves the increased provision of facilities and services, including bikeways, trails, sidewalks, and transit. Previous chapters in Champaign Moving Forward discuss support for alternative modes provided by the City and MTD. Land use changes can also influence alternative mode use, such as increased densities, mixed-uses, and transit oriented developments supported by the City of Champaign and MTD.

Other strategies affect the demand for travel, such as telecommuting programs, shifting work hours, and class schedules so commutes occur outside of rush hour, compressing work weeks, flextime, and others.



What are the Travel Demand Management Policies?

- Prepare and distribute information about transit routes, bicycle facilities, and opportunities for carpools to local businesses, schools, and the general public through the City's website, "smart trip kits," and other ways.
- Plan bike and pedestrian routes, review maximum parking requirements, and plan transit oriented developments.
- Identify and support transportation coordinators at major employers, develop feasible goals for trip reductions, and develop codes to be flexible to support TDM activities.
- Work with transportation providers and federal and state agencies to plan and implement appropriate TDM measures.
- Establish resources to implement TDM programs.
- Identify and support opportunities for a local circulator shuttle system to connect retail centers, employers, and other activity centers.
- Modify codes and ordinances to include maximum parking standards.