

Summary Report  
*to the*  
Champaign-Urbana Mass Transit District

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**LONG - RANGE STRATEGIC PLAN**

**Project Compendium**

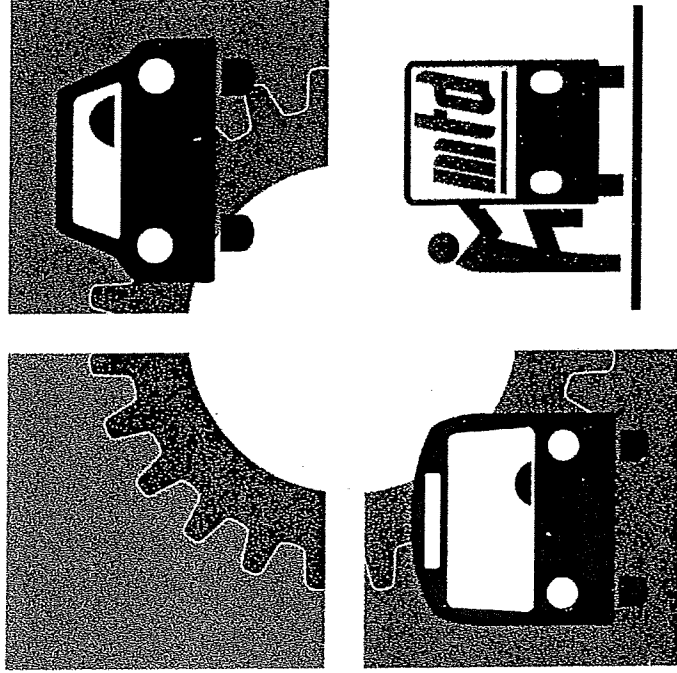
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prepared by

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*This report is confidential and intended solely for the use and information of the company to whom it is addressed*

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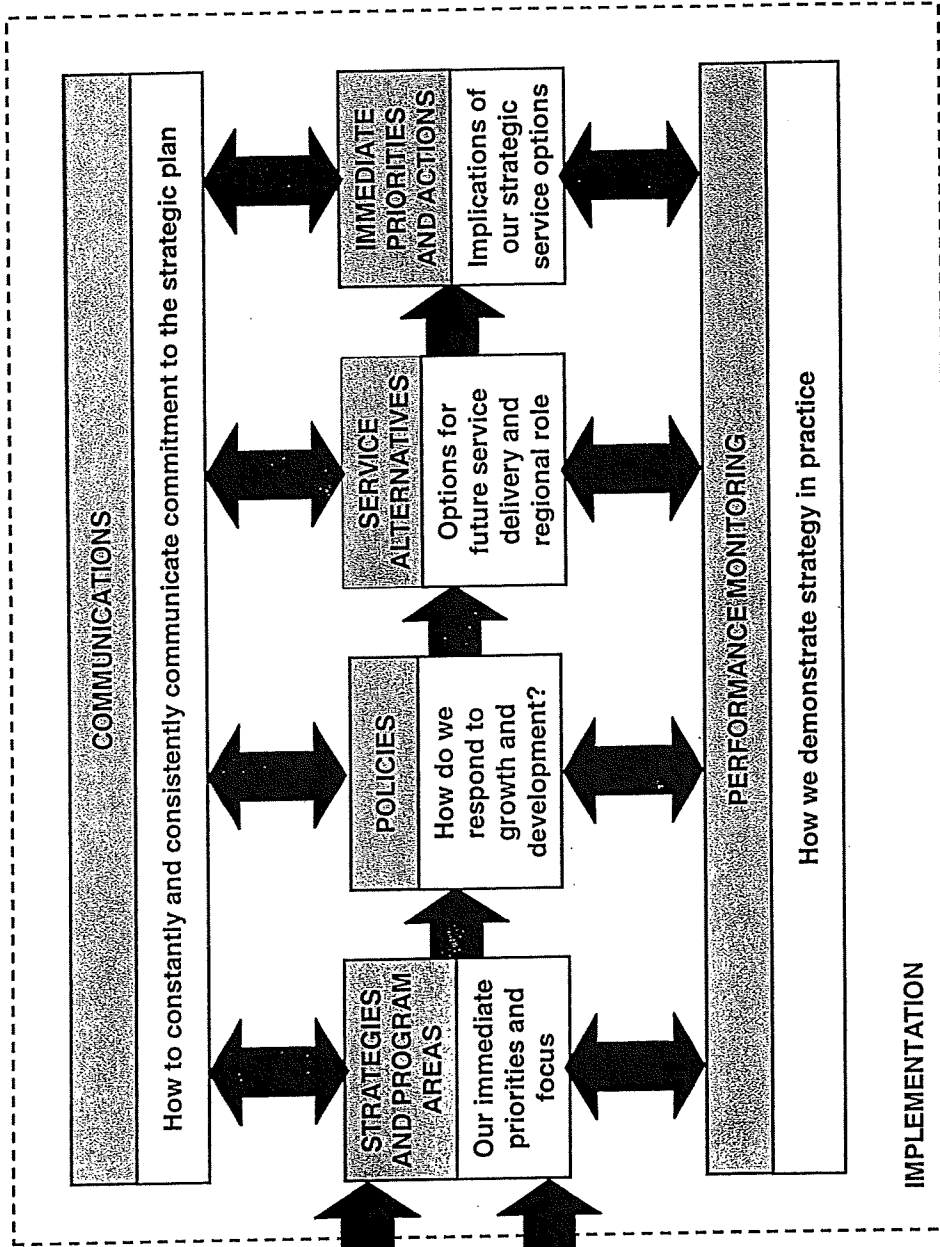
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## **EXECUTIVE SUMMARY**

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# STRATEGIC PLANNING FRAMEWORK



## Introduction

# THE CHAMPAIGN-URBANA MASS TRANSIT DISTRICT (MTD) HAS DEVELOPED A LONG-RANGE STRATEGIC PLAN

- The objectives of the plan are to understand the current environment within which MTD operates, establish a long-term vision and mission, and evaluate policies and strategic alternatives for the future
- The strategic planning effort involved several major tasks:
  - Analyzing stakeholder perceptions to determine how those inside and outside MTD view the current situation and the issues facing MTD
  - Analyzing MTD's strategic position, including strengths, weaknesses, opportunities and threats (SWOTs), as a point of reference for all study efforts
  - Developing a new mission, vision, goals and objectives to define MTD's business strategy
  - Examining strategic options and policies to determine what course the MTD wishes to take in the future
  - Reviewing strategic decisions and developing a final strategy related to service plans and capital needs
  - Implementing the adopted business strategy to encourage lasting and positive change across the organization

## Introduction

### **THIS DOCUMENT SERVES AS THE STRATEGIC PLANNING PROCESS COMPENDIUM. EACH CHAPTER OF THIS REPORT PRESENTS THE RESULTS OF ONE STEP OF THE STRATEGIC PLANNING PROCESS**

- Executive Summary: the current chapter provides a high level overview of the strategic planning process and presents the key components of the Service and Capital Plan
- Chapter 1: Stakeholder Interviews – interviews were conducted with over 80 individuals regarding MTD's strengths, weaknesses, opportunities, and threats (SWOTs) from which a SWOTs analysis was conducted
- Chapter 2: Mission, Vision & Goals – the mission statement conveys the primary role of the agency; the vision reflects what MTD wants to become; and, the goals provide information on specific means and approaches to reach a particular vision
- Chapter 3: Strategic Policies – several policies were developed to provide a decision framework so future strategic decisions are in-line with MTD's mission and vision. This chapter contains discussion topics for policy development. The final, Board-adopted policies are in Appendix A
- Chapter 4: Service and Capital Plan – backup materials for the Service and Capital Plan presented in this Executive Summary are included in Chapter 4. Included in this chapter are the peer review, the scenario analysis including summary tables, and a discussion of technology improvements
- Chapter 5: Marketing Plan – this chapter outlines the messages, methods, participants, and markets for communicating the results of MTD's Strategic Plan specifically and the benefits of transit in general. Appendix B includes a more detailed marketing implementation plan as well as a sample presentation
- Chapter 6: Implementation Plan – this section presents action items for implementation of MTD's Strategic Plan

## MISSION, VISION & GOALS

<b>MTD's mission...</b>	<i>Leading the way to greater mobility</i>
<b>MTD's vision...</b>	<i>MTD goes beyond traditional boundaries to promote excellence in transportation</i>
<b>MTD's goals...</b>	<i>MTD will deliver high quality traditional and innovative transportation services that are reliable, clean, on-time and safe.</i>
	<i>MTD will encourage use of alternative transportation services to promote mobility in our community.</i>
	<i>MTD will ensure fiscal responsibility, leverage existing funds and investments, and proactively seek new funding to support current and growing transportation needs.</i>
	<i>MTD will explore new and alternative technology to improve service delivery and meet customer needs.</i>
	<i>MTD will provide constant and clear communications with internal and external partners as part of our commitment to efficient, fair and ethical business practices.</i>
	<i>MTD will attract, retain, and develop high quality employees, offering career opportunities for advancement and encouraging employees to communicate ideas.</i>
	<i>MTD will develop partnerships and pursue new markets to encourage mobility, economic development and growth for our community.</i>



## Introduction

### **THE NEW MISSION AND VISION STATEMENTS SET THE TONE FOR THE STRATEGIC PLANNING PROCESS**

- The new mission and vision statements call for MTD to be a leader in achieving greater mobility and promoting excellence in transportation in the Champaign-Urbana area
- Goals and objectives, strategic policies, and the service and capital plan developed as part of the strategic planning process should be supportive of the mission, and ensure achievement of the vision
- Seven specific goals were identified covering MTD's roles as a transportation provider, employer, business, and community stakeholder
- Seven policies have been developed and are intended to provide guidance to MTD as it pursues its desired business strategy
- The service and capital plan, when implemented, is essentially the action plan of the strategic planning process. It is the means by which the mission, vision, and goals are achieved

PLAN SUMMARY

SCENARIOS SUMMARY	Expand Service Area	Expand Service Hours/Miles	Expand Peak Fleet	Increase Fares	Maximize Tax, Other System-Generated Revenues	Implement Cost Cutting Strategies	Technology Improvements	Joint Development	Expansion of Role
Selected Service and Capital Plan	◐	●	●	◐	◐	○	◐	◐	◐
Scenario 1 Maintain Current System	○	○	○	○	○	○	○	○	○
Scenario 2 Modest Growth	◐	◐	◐	◐	●	●	◐	◐	◐
Scenario 3 Expanded Role	●	●	●	●	●	●	●	●	●

○ - Does not implement      ◐ - Partially implements      ● - Fully Implements

## Introduction

### **THE SERVICE AND CAPITAL PLAN OUTLINED IN THIS EXECUTIVE SUMMARY PRESENTS THE OUTCOME OF THE SCENARIO ANALYSIS**

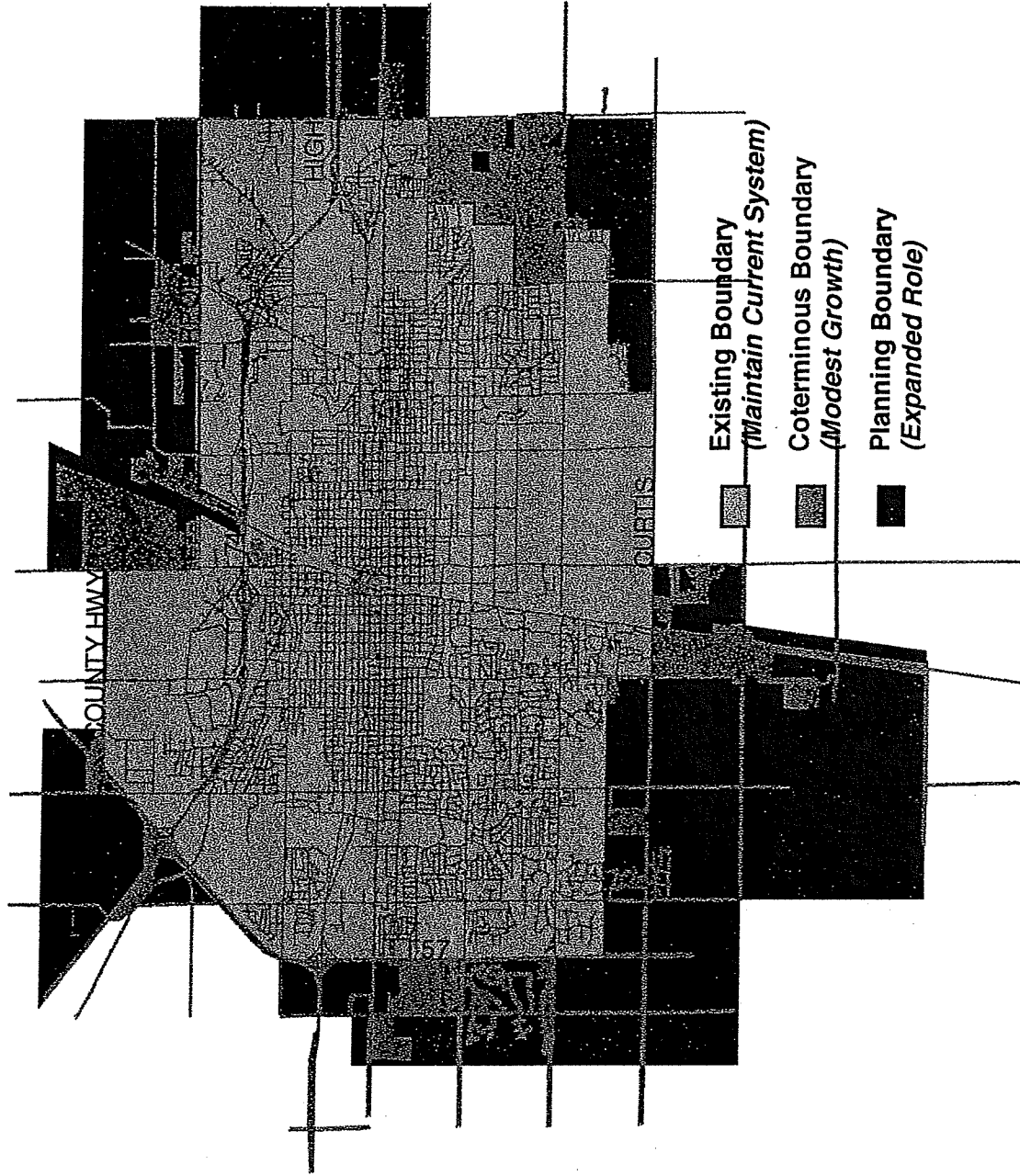
- The scenario analysis developed different pictures of the future, from which the preferred future, made up of components from each scenario, was selected
- MTD examined three primary scenarios for future service:
  - Scenario 1: Maintain Current System – This scenario provided a baseline for analysis and determines what resources are required to maintain the current system into the future. It established a lower range for risk assessment in preparing for the future
  - Scenario 2: Modest Growth – This scenario determined the maximum resources that would be available if MTD fully leverages existing opportunities (e.g., fares, pass fees, rent, advertising, interest, local tax, state funds and federal funds) and applies these resources to achieve service expansion within, and potentially outside current District boundaries. It established a middle ground in preparing for the future
  - Scenario 3: Expanded Role – This scenario expanded MTD's role to include airport operation, bike and pedestrian access, other non-single occupant vehicle services, and significantly expands service levels and boundaries and estimates the resources required to fulfill this role (i.e., not financially constrained). It represented an upper range of growth for future planning

## Introduction

### **THE PREFERRED 10 YEAR SERVICE AND CAPITAL PLAN IS COMPRISED OF COMPONENTS FROM EACH OF THE THREE SCENARIOS**

- Each of the three scenarios examined revenues, service, costs, and roles consistent with varying levels of travel demand growth in general and MTD growth specifically
- Though grouped into three different future operating states, the scenarios were not intended to be exclusive. The preferred service and capital plan is made up of components selected from all three scenarios
- Plan components were selected that were consistent with each other. For example, the desire to increase service levels or introduce new technology required at least modest revenue growth over the next ten years
- The service and capital plan is also consistent with and supportive of the strategic policies already developed
- By picking and choosing elements of the three scenarios, MTD has targeted a future that is not only achievable but is responsive to the region's transportation needs

# SERVICE AREA



## Service Area

### **MTD'S SERVICE AREA WILL BECOME COTERMINOUS WITH MUNICIPAL BOUNDARIES AND THE PLANNING AREA WILL BE EXPANDED TO BE CONSISTENT WITH OTHER REGIONAL PLANNING EFFORTS**

- MTD's current service area does not cover all incorporated areas of the three municipalities it serves, but does cover some areas outside those jurisdictions
- As part of the Service and Planning Area Policy, MTD Board and staff decided to extend MTD's service area to include the areas of Champaign, Urbana, and Savoy currently outside the service area (subject to annexation regulations). Boundary extension does not require full transit service to be provided to the newly annexed territory, however. ADA paratransit service will be extended to all newly annexed areas, with Direct or fixed-route bus service to be added only as warranted by travel demand
- In addition to extending the service area boundary, MTD will use the current CUUATS (Champaign-Urbana Urbanized Area Transportation Study) boundary as its planning boundary. The planning area boundary will be the sphere of influence within which MTD will coordinate transit service plans with other transportation improvement plans
- In making service decisions, MTD will consider needs within the entire planning area, and also note impacts of development in the planning area on service within its boundaries
- Over time, MTD will seek to further extend the District's service area boundary to be consistent with the regional transportation planning boundary (i.e. CUUATS boundary), subject to annexation regulations and development patterns

## COST PER HOUR

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>BUS</b>	\$54.74	\$56.38	\$58.08	\$59.82	\$61.61	\$63.46	\$65.37	\$67.33	\$69.35	\$71.43
<b>DR</b>	\$38.65	\$39.81	\$41.00	\$42.23	\$43.50	\$44.81	\$46.15	\$47.53	\$48.96	\$50.43

Costs grow by 3 percent per year. Cost per hour as reported in 1999 NTD report used as the base - \$51.60 for bus, \$36.43 for demand response.

Cost per Hour

### **COST PER HOUR IS ASSUMED TO GROW AT THE RATE OF INFLATION**

- The inflation rate has averaged just over 3 percent since 1986:

	'86	'87	'88	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99
<b>Rate</b>	1.1%	3.7%	3.6%	4.5%	5%	4.1%	2.7%	2.6%	2.9%	3.1%	3.3%	2.4%	1.5%	2.3%

- A 3 percent inflation growth rate per year results in a bus cost per hour of \$71.43 and a demand response cost per hour of \$50.43 by 2010
- A peer analysis showed MTD to be an efficient transit operator as cost per hour was better than the average of its peers. There is little room for hourly cost savings and, as a result, no cost savings are projected through 2010



## OPERATING REVENUES

Source (in 000's)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Fare Revenues <sup>1</sup> (fares, contract fees)	\$3,531.5	\$3,619.8	\$3,710.3	\$3,803.0	\$3,898.1	\$3,995.6	\$4,095.4	\$4,197.9	\$4,302.8	\$4,410.3
Property Tax <sup>2</sup>	\$3,715.0	\$3,863.6	\$4,018.2	\$4,262.5	\$4,433.0	\$4,610.3	\$4,794.7	\$5,086.2	\$5,289.7	\$5,501.2
Other System Generated Revenues <sup>3</sup> (advertising, interest, charter fees)	\$805.2	\$831.5	\$858.7	\$896.2	\$925.7	\$956.2	\$987.8	\$1,031.6	\$1,065.8	\$1,101.3
<b>SUBTOTAL - SYSTEM GENERATED</b>	<b>\$8,051.7</b>	<b>\$8,314.9</b>	<b>\$8,587.2</b>	<b>\$8,961.7</b>	<b>\$9,256.8</b>	<b>\$9,562.1</b>	<b>\$9,877.9</b>	<b>\$10,315.7</b>	<b>\$10,658.3</b>	<b>\$11,012.8</b>
State Funds <sup>4</sup>	\$6,462.5	\$6,765.0	\$7,073.0	\$7,403.0	\$7,749.5	\$8,107.0	\$8,481.0	\$8,871.5	\$9,284.0	\$9,713.0
<b>TOTAL - OPERATING REVENUES</b>	<b>\$14,514.2</b>	<b>\$15,079.9</b>	<b>\$15,660.2</b>	<b>\$16,364.7</b>	<b>\$17,006.3</b>	<b>\$17,669.1</b>	<b>\$18,358.9</b>	<b>\$19,187.2</b>	<b>\$19,942.3</b>	<b>\$20,725.8</b>

<sup>1</sup> Fare Revenues grow by a 2.5% inflation rate each year.

<sup>2</sup> Property tax revenue grows at 4% per year (including CPI growth and new assessed valuation). In addition, a 2% increase in the property tax base is added in years 2004 and 2008 to account for service boundary expansion.

<sup>3</sup> Other system generated revenues are assumed to increase to 10% of total system generated revenue (i.e., fares, property taxes, and other system generated revenue). Historically, MTD's other system generated revenues have averaged 7% of total system generated revenue.

<sup>4</sup> State funds remain as 55% of total operating costs.

## Revenues

### **MTD'S REVENUES ARE PROJECTED TO BE NEARLY \$21 MILLION BY THE YEAR 2010**

- Total operating revenues grow by approximately 3.9 percent each year, attributable to growth in the various revenue components
- Fare and contract revenues are projected to increase by 2.5 percent per year through 2010
- Other system generated revenues (i.e., rent, concession, interest, advertising) are assumed to increase to 10 percent of total system generated revenue in each year
- Property taxes increase by 4 percent per year (CPI and increase in assessed valuation) plus additional revenues as the District boundary is expanded
- State funding remains at 55 percent of operating costs

## SERVICE LEVELS

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>BUS</b>										
Service Hours	207,200	210,500	213,800	217,200	220,700	224,200	227,700	231,300	235,000	238,700
Service Miles	2.53M	2.58M	2.62M	2.66M	2.70M	2.75M	2.79M	2.83M	2.88M	2.92M
<b>DEMAND RESPONSE</b>										
Service Hours	10,570	10,730	10,900	11,070	11,250	11,430	11,610	11,790	11,980	12,170
Service Miles	220,600	223,940	227,480	231,030	234,790	238,540	242,300	246,060	250,020	253,990

Service Levels are increased by approximately 1.58% each year to achieve 17% growth over the period 2000 to 2010.

## Service Levels

### **SERVICE LEVELS WILL BE INCREASED TO ACCOMMODATE THE GROWTH IN TRAVEL DEMAND AS WELL AS TO INCREASE TRANSIT'S MODE SHARE**

- Travel demand is projected to increase by about 10 percent by the year 2010
- The 1990 Census estimated a 28 percent journey to work mode share for non-private motor vehicle modes (e.g., transit, walking and biking) in the Champaign-Urbana urban area. As part of the regional role policy, MTD Board and management staff established a goal of a 35 percent journey to work mode share by 2010
- Accommodating expected travel demand and increasing non-auto work trips will be achieved through service level increases; productivity improvements achieved through routing efficiencies, alternative service delivery options, and new technology; and service quality enhancements including new technology and stop amenities to attract discretionary riders
- A 17 percent increase in the level of service by 2010 is a justifiable target for MTD. Such increases can be achieved with projected revenue growth and, combined with non-SOV advocacy and initiatives in the region, makes the 35 percent non-auto work trip mode share an achievable goal
- The 17 percent growth in service levels would result in approximately 239,000 hours of bus service and 12,200 hours of demand response service in the year 2010

Costs and Revenues

**OPERATING SURPLUSES COULD BE USED TO FUND NEW TECHNOLOGY AND OTHER SERVICE-RELATED IMPROVEMENTS**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Operating Revenues	\$14.51M	\$15.08M	\$15.66M	\$16.36M	\$17.01M	\$17.67M	\$18.36M	\$19.19M	\$19.94M	\$20.73M
Operating Costs	(\$11.75M)	(\$12.30M)	(\$12.86M)	(\$13.46M)	(\$14.09M)	(\$14.74M)	(\$15.42M)	(\$16.13M)	(\$16.88M)	(\$17.66M)
Depreciation Cost	(\$2M)	(\$2M)	(\$2M)	(\$2M)	(\$2M)	(\$2M)	(\$2M)	(\$2M)	(\$2M)	(\$2M)
<b>Reserve Funds</b>	<b>\$760,000</b>	<b>\$780,000</b>	<b>\$800,000</b>	<b>\$900,000</b>	<b>\$920,000</b>	<b>\$930,000</b>	<b>\$940,000</b>	<b>\$1.06M</b>	<b>\$1.06M</b>	<b>\$1.07M</b>

- Monies available for the capital reserve increase each year through 2010, rising faster in 2004 and 2008 due to increased property taxes from service boundary expansion
- Revenues in excess of expenses will be put into the capital reserve for future capital purchases (new and replacement equipment and facilities) and one-time operational improvements

## Service Types

### MTD COULD USE A VARIETY OF TRANSPORTATION MODES TO PROVIDE TRANSIT SERVICE

- MTD currently provides a variety of transit services:
  - Fixed Route – general and campus service
  - Paratransit
    - ADA
    - Direct service
    - SafeRides
- Potential new service types/modes include:
  - Small vehicle fixed route – a hybrid of MTD's fixed route and Direct service. Smaller vehicles are used to provide fixed-route service in lower demand areas
  - Limited stop fixed route – the same route structure that MTD currently uses but buses stop at pre-determined locations rather than at every corner
  - BRT (Bus Rapid Transit) – uses full size buses operated in high demand corridors. Characteristics include more frequent headways and fewer stops than fixed route service
  - Rail – if demand warrants and opportunity presents itself
- MTD could also facilitate/offer improved pedestrian and bicyclist access to transit services

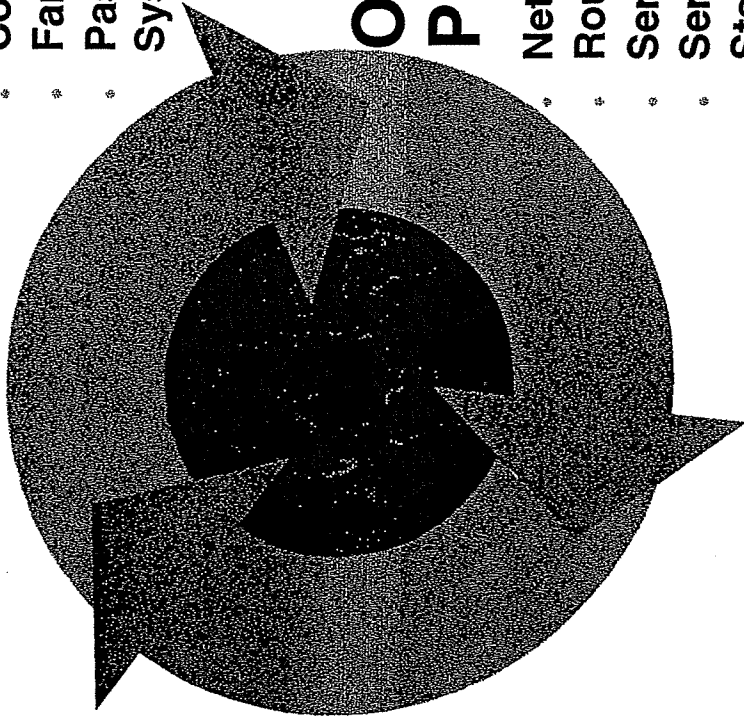
## THE INTEGRATION OF THREE CORE COMPONENTS DEFINES BUS RAPID TRANSIT

### CUSTOMER INTERFACE

- \* Fare Structure
- \* Marketing Strategy
- \* Safety and Security
- \* Travel Information
- \* Physical Design
- \* Urban Design

### TECHNOLOGY

- \* Vehicles
- \* Guideway
- \* Control Systems
- \* Fare Systems
- \* Passenger Information Systems



### OPERATING PLAN

- \* Network Structure
- \* Route Structure
- \* Service Frequency
- \* Service Span
- \* Station Spacing
- \* Integration with other Modes

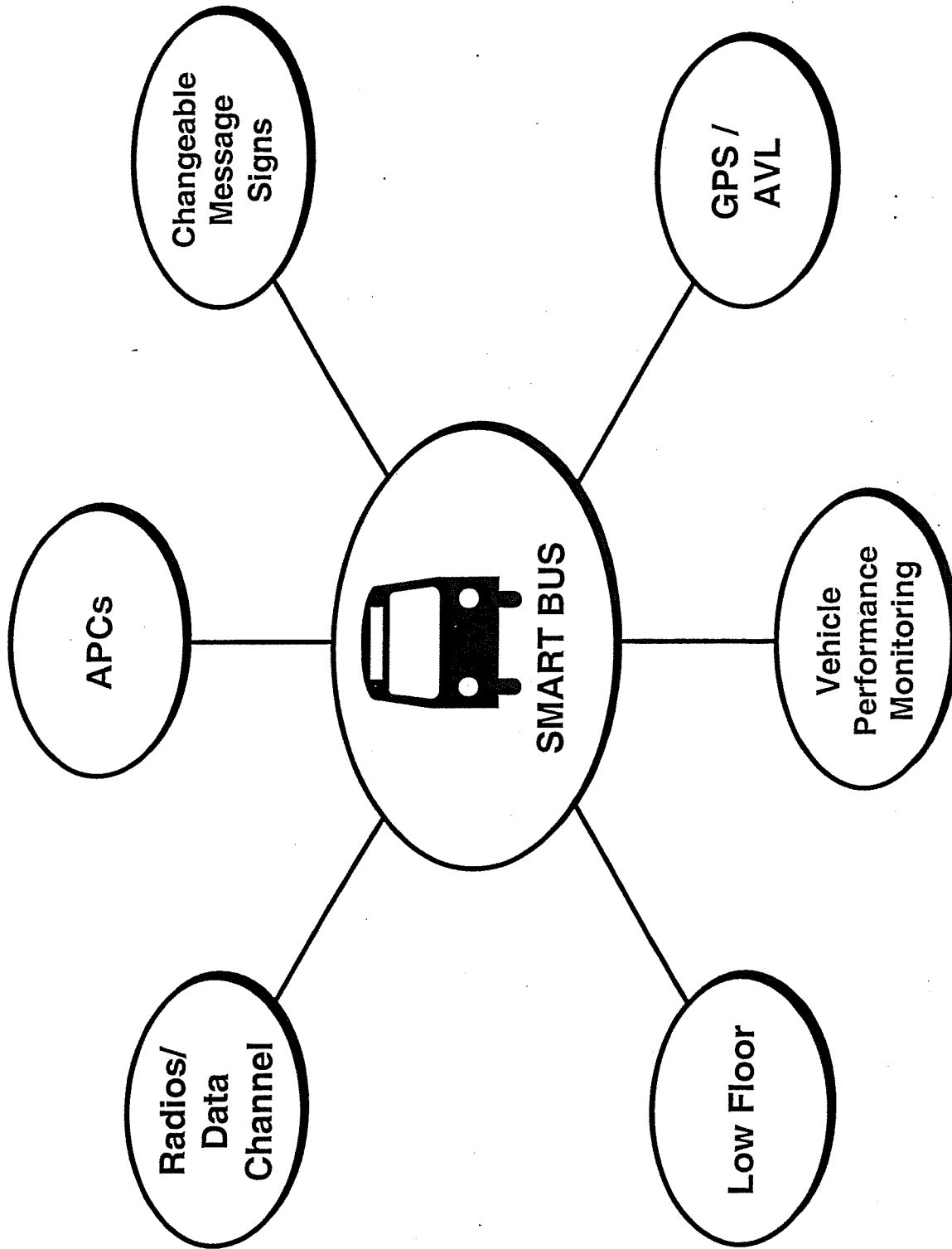
## Transit Technology

### **THERE ARE SEVERAL BASIC PRINCIPLES WHICH SHOULD GUIDE MTD'S INVESTMENT IN TRANSIT TECHNOLOGY**

- Purchase the technology which provides the capabilities desired, including speed, capacity, operating performance, size, noise, environmental performance and the like
- Consider maintenance facility capacity and design as part of vehicle technology decisions – can the fleet be maintained in current facilities, or are new facilities required?
- Technology does impact performance and cost. Focus on purchasing equipment which best meets passenger and operational needs at an affordable cost. Consider intelligent transportation system (ITS) technologies like global positioning systems (GPS), automatic passenger counters (APCs), powertrain performance monitoring, smart cards in fare collection, voice/data/text messaging radios, voice enunciators, and advanced passenger information systems where the value of additional capability exceeds marginal cost



**FLEET TECHNOLOGY**



## **TECHNOLOGY ENHANCEMENTS ON MTD'S BUS FLEET WOULD PROVIDE BENEFITS TO MTD AND ITS CUSTOMERS**

- Low floor buses tend to expedite boarding for all passengers offering the potential to reduce dwell time and increase the speed of transit service
- Modern radio systems allow ad-hoc messages to be written by dispatchers and transmitted to operators for display. Data channels support automatic vehicle location, computer aided dispatch, and other ITS applications
- Changeable message signs allow for accurate, up-to-date transit service information to be communicated to passengers
- APCs (automatic passenger counters) can reduce data collection costs, and improve the quality and accuracy of data
- GPS (global positioning systems) and AVL (automatic vehicle location) have a number of benefits including real-time management of in service operations with fewer supervisors, improved on-time performance system-wide, faster emergency response, coordinated transfers, dynamic scheduling and routing, and better data collection
- Drivetrain monitoring can alert Dispatch of impending failures. Dispatch can take pre-emptive action to send out a replacement vehicle prior to breakdown, or a mechanic to address the issue at trip end, avoiding negative passenger impacts and potentially realizing lower costs

## TRANSIT CENTER DESIGN

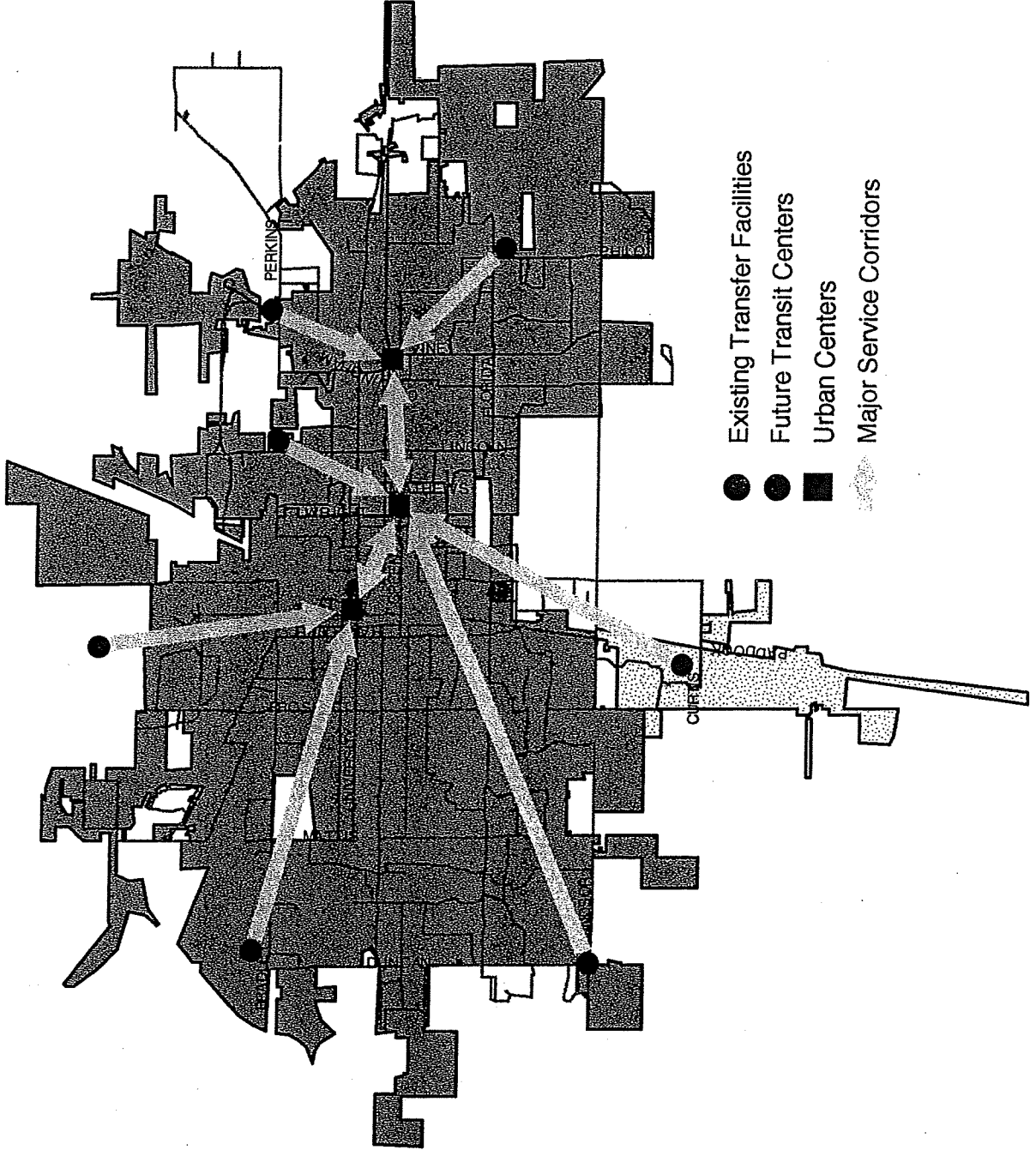
Feature	BASIC CENTER	PREMIUM CENTER
<i>Parking Spaces</i>	50-100 spaces	100-300 spaces
<i>Lighting</i>	street lighting	night security lighting
<i>Passenger Wait Area</i>	open shelters, benches	closed waiting area, seats
<i>Bus Bays</i>	2 to 4	4 to 8
<i>Passenger Information</i>	posted schedule	posted schedule, route brochures, video display
<i>Restrooms</i>	none	yes
<i>Concessions</i>	maybe news rack, pay phone	news rack, pay phone, vending machines
<i>Joint Development Opportunities</i>	none	auto servicing, video rental, other retail

## Transit Centers

### **MTD SHOULD CONSIDER A VARIETY OF DESIGN CHARACTERISTICS IN THE PLANNING OF FUTURE TRANSIT CENTERS**

- The only existing transit center is the Illinois Terminal. Lot E-14 on the University campus is a key park n' ride facility
- Transit centers offer a higher level of service in terms of transit service and amenities than a simple park n' ride lot as illustrated by the difference between Illinois Terminal and Lot E-14
- The design of future transit centers varies significantly by scenario from a basic center to a full-service premium center
  - A basic center would provide a minimum level of service to transit patrons
  - A premium center would provide added amenities including concessions, enclosed waiting areas, and restrooms
- The future transit center system may include centers of both types depending on location and demand
- In addition to transit centers, a shelter replacement/improvement program should be implemented. Today, there is an inadequate number of shelters at key MTD bus stops and those that do exist are in need of replacement

# KEY SERVICE CORRIDORS



## Service Corridors

### **MTD STAFF HAVE IDENTIFIED SEVERAL HIGH DEMAND SERVICE CORRIDORS**

- The identified corridors connect key activity centers with areas on the periphery of MTD's service area. Key centers include:
  - Downtown Champaign
  - Downtown Urbana
  - University of Illinois
- Key activity centers and outer pulse points represent the most appropriate sites for transit centers. The level of activity at each center would dictate the design characteristics for the center
- Key corridors represent the travel corridors most appropriate for future BRT service

**UNDER THE MODEST GROWTH AND EXPANDED ROLE SCENARIOS, MTD WOULD TAKE A PROACTIVE ROLE IN LAND USE AND DEVELOPMENT WITHIN ITS SERVICE AND PLANNING AREA**

- Possible future expansion of MTD's service area and the impacts of development outside its service area on the service it provides require MTD to look beyond its borders at land use/development issues
- There are a variety of resources and information available that document the benefits of transit-friendly development and design. MTD should collect and package these resources for dissemination to appropriate agencies/groups/organizations
- MTD should actively participate in the land use/development process:
  - County Planning Commission
  - City planning departments
  - City zoning departments (if different from planning departments)
  - Developers
  - Chambers of Commerce
  - University of Illinois
  - State legislature
- MTD should lobby for transit friendly development and sustainable communities

## Regional Role

### **MTD'S REGIONAL ROLE HAS LARGELY BEEN DETERMINED BY ITS REGIONAL ROLE AND PARTNERSHIPS POLICY**

- MTD's roles range from continuing solely as transit provider and advocate to playing a role in all regional transportation issues
  - Regional Role**
    - Lead agency for transit service
    - Participate in regional forums with transit issues
    - Advocate pedestrian/bicycle access improvements
    - Advocate all non-SOV improvements
- Participation in non-transit programs/initiatives would be on a "funds/resources available" basis



## Plan Benefits

### **THE SERVICE AND CAPITAL PLAN WILL BRING SIGNIFICANT BENEFITS TO THE CHAMPAIGN-URBANA AREA**

- A healthy community is one in which a variety of transportation options are available to meet not only the mobility and accessibility needs of its citizens but enhance the livability and environmental health of the community
- MTD's goal to achieve a 35 percent non-private motor vehicle mode share for work trips by 2010 would result in significant benefits to the community:
  - Without MTD transit service, walking, biking, and other non-private motor vehicle modes, approximately 23,000 more people would be driving to/from work each day. This is roughly equivalent to the entire undergraduate population at the University
  - These 23,000 additional drivers would require 3.9 million square feet (91 acres) for parking. This is equivalent to more than a third of the size of Parkland College
  - The traffic volume generated by 23,000 people driving to/from work each day is equivalent to that carried by a 6 lane highway

