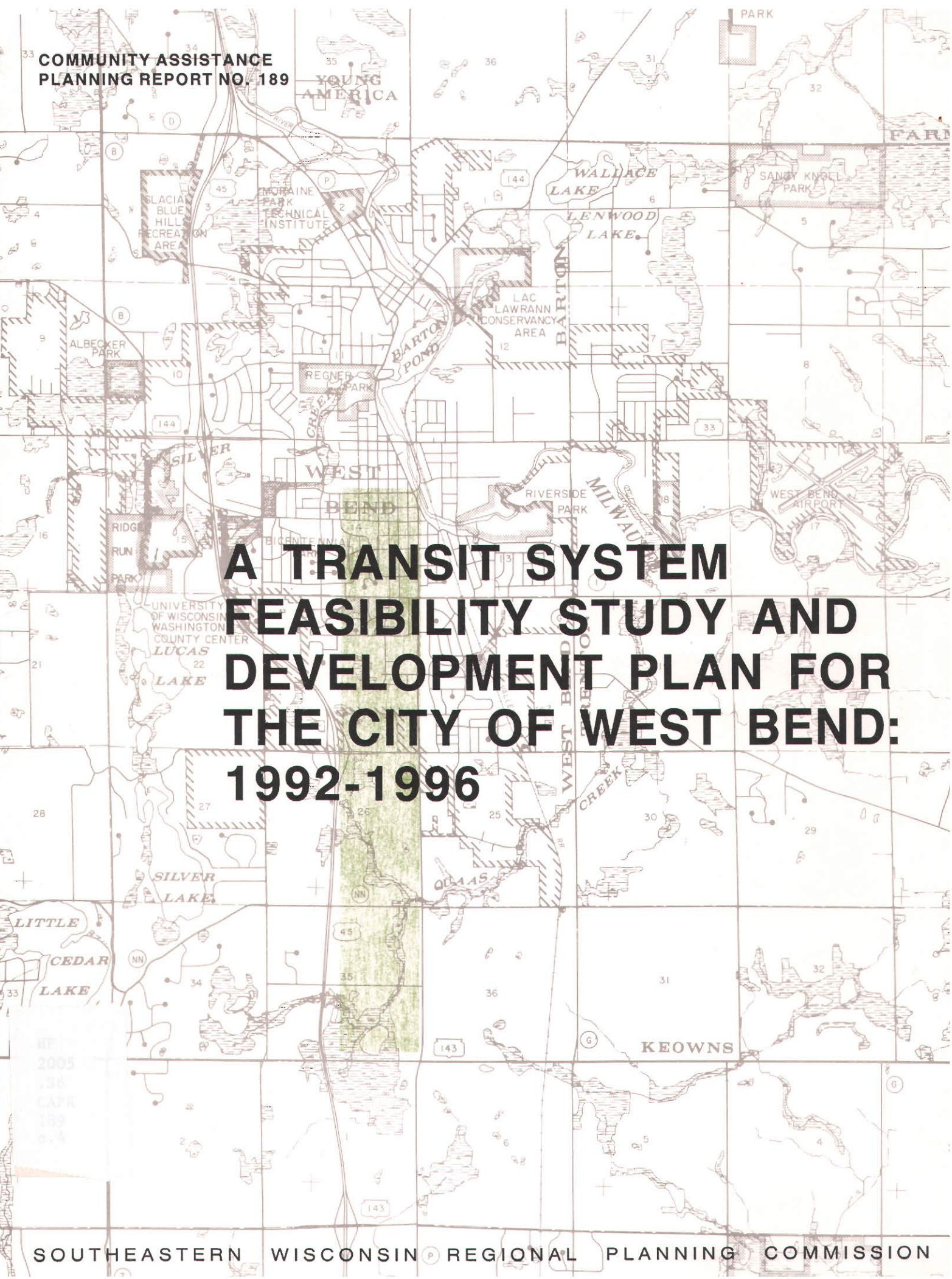
COMMUNITY ASSISTANCE
PLANNING REPORT NO. 189



A TRANSIT SYSTEM FEASIBILITY STUDY AND DEVELOPMENT PLAN FOR THE CITY OF WEST BEND: 1992-1996

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COMMUNITY ASSISTANCE PLANNING REPORT
NUMBER 189

A TRANSIT SYSTEM FEASIBILITY STUDY AND DEVELOPMENT PLAN FOR THE CITY OF WEST BEND: 1992-1996

Prepared by the

Southeastern Wisconsin Regional Planning Commission
P. O. Box 1607
Old Courthouse
916 N. East Avenue
Waukesha, Wisconsin 53187-1607

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February 1991

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February 22, 1991

To: The Honorable Mayor and Members of the City of West Bend Common Council

Ladies and Gentlemen:

In February 1990 the Common Council of the City of West Bend requested the assistance of the Regional Planning Commission in the conduct of a study of the feasibility of creating a public transit system in the West Bend area. To guide the conduct of the study, the City created an Advisory Committee composed of elected and appointed officials, businessmen, and concerned citizens.

The Commission, working with the Advisory Committee, has now completed the requested study and is pleased to provide to you this report setting forth the findings and recommendations of the study. The report presents transit service objectives and related performance measures as formulated under the study; the findings of inventories of pertinent demographic, economic, and land use characteristics of the City of West Bend and environs and of the travel characteristics of City residents; the results of an evaluation of the existing transit services provided to the general public and to priority population groups within the West Bend area; and describes alternative transit services which were considered, including estimates of associated ridership and costs.

The results of the evaluation of the alternative transit services considered for the West Bend area indicated that both fixed-route bus and shared-ride taxicab transit service could be expected to generate reasonable transit ridership levels and to have reasonable operating subsidies; and, therefore, that either type of transit service would be feasible in the West Bend area. Based upon careful evaluation of these alternatives, however, the Advisory Committee unanimously recommended adoption of the shared-ride taxicab service alternative. In making this recommendation, the Advisory Committee indicated that they were strongly influenced by the higher quality of service as well as by the substantially lower public costs associated with that alternative.

The findings and recommendations of this report were carefully reviewed and unanimously approved by the Advisory Committee, and are herewith submitted on behalf of the the Committee for consideration and action by the City. Adoption and implementation of the recommended plan would, in the Committee's opinion, provide residents of the West Bend area with a level of transit service capable of satisfying local transportation needs in a cost-effective manner. In so doing, the recommended shared-ride taxicab system would provide an alternative to the private automobile for local travel and, at the same time, provide increased accessibility to major land use activity centers for those population groups that must rely on public transportation as the primary means of satisfying their personal travel needs.

The Regional Planning Commission is appreciative of the assistance and support provided in the conduct of the study and the preparation of the recommended transit system development plan by the West Bend Department of Community Development and the West Bend Department of Public Works, as well as by the Advisory Committee. The Commission stands ready to assist the City in presenting the recommended plan to the public for review and evaluation, and in implementing the recommended transit services over time.

Sincerely,

Kurt W. Bauer
Executive Director

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Chapter I

INTRODUCTION

On February 26, 1990, the Common Council of the City of West Bend requested the assistance of the Regional Planning Commission in the conduct of a feasibility study of, and the preparation of a plan for, the provision of transit service within the City of West Bend. This request stemmed from concerns over the ability of the limited taxicab and specialized transportation services available within the City to adequately serve the growing population and, in particular, the growing elderly segment of the population in need of public transportation. The feasibility study was to identify the transit needs of the resident population of the City, identify alternative transit services which could be provided in response to the identified needs, and prepare a plan that could be used to guide the development of an appropriate level of transit service in the West Bend area.

The findings and recommendations of the requested transit system feasibility study and development plan are documented in this report. The plan is based upon a thorough inventory and analysis of the existing transit services available within the West Bend area; analyses of the travel habits, patterns, and needs of the residents of the West Bend area; and a careful evaluation of alternative means for providing needed transit services. The plan also identifies the financial commitment and actions necessary by the various levels and units of government concerned to implement the plan.

STUDY PURPOSE

The purpose of the study is fourfold:

1. To identify the need for a transit system in the West Bend area. The need determination would include an evaluation of the effectiveness of the existing transit services in meeting the transportation needs of the resident population, major trip generators in the area, and the travel patterns within the area.

2. To identify the type of service that should be provided if a transit system is needed, the portions of the study area that should be served by the system, and the extent to which the City of West Bend would have to fund the transit system.

3. To develop a plan for a transit system if such a system is found to be needed. The plan should provide a sound basis for creating the needed system and for the making of management and operating policy decisions, as well as capital investment decisions, necessary to provide transit service in the area.

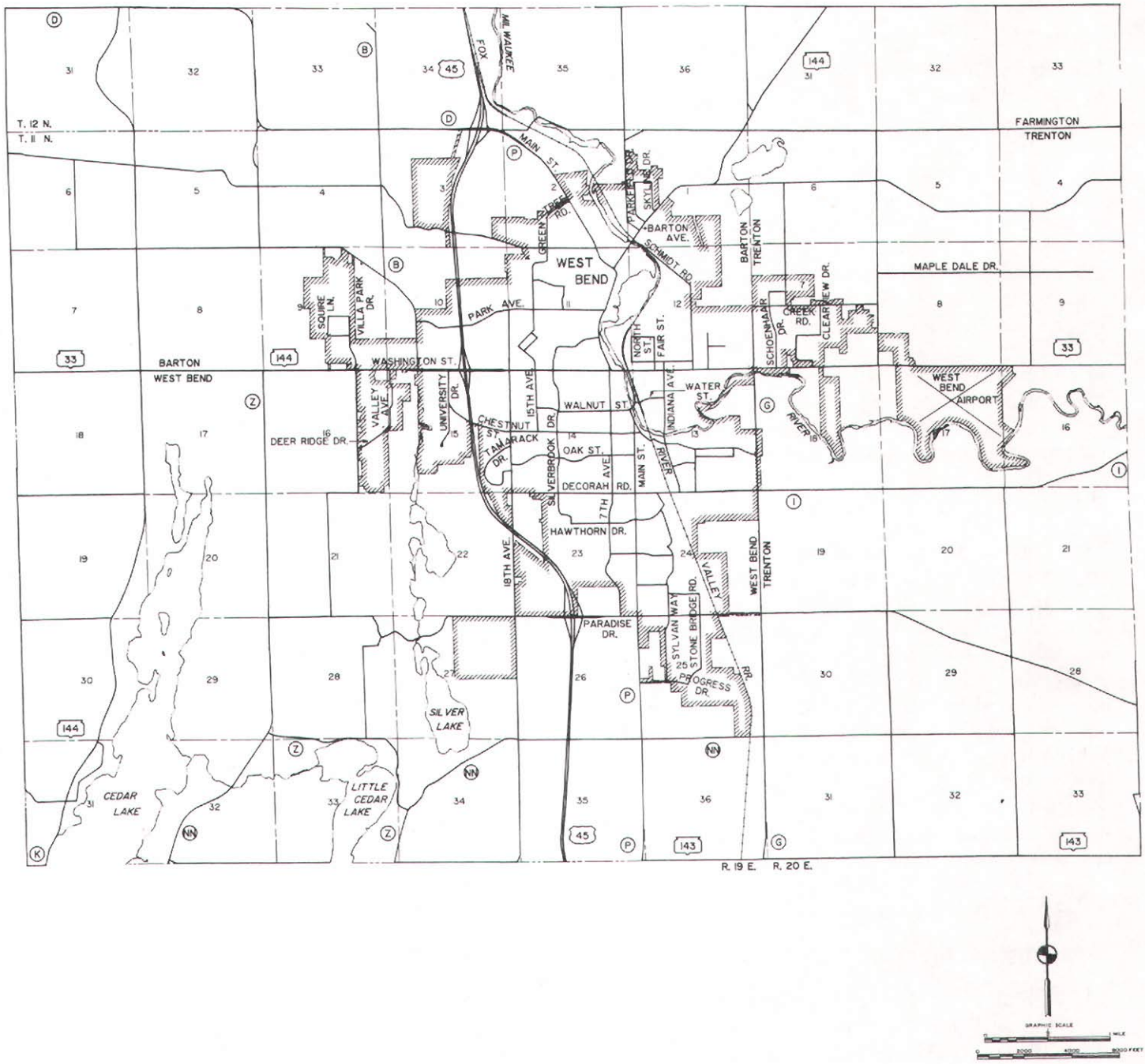
4. To provide the documentation necessary to support applications for available transit capital and operating assistance funds from state and federal sources.

SCOPE OF WORK

Seven specific steps were involved in the conduct of the requested transit feasibility study and the preparation of the system development plan. The first step was the formulation of appropriate transit service development objectives and supporting performance standards and design criteria. The second step was the collation and collection of the socioeconomic, land use, and travel habit and pattern data pertinent to a sound evaluation of existing and proposed transit services. The third step was an analysis of the existing transit services, including the identification of any potential deficiencies in those services. The fourth step was the development and evaluation of alternative transit services which could address the identified deficiencies. The fifth step was the preparation of a program of recommended transit service improvements. The sixth step was the preparation of a financial plan, including the presentation of data on the estimated capital and operating expenses, passenger revenues, and operating deficits for the recommended system, and on the portions of any associated capital and operating deficits that can be funded through state and federal assistance programs and the portion that must be funded through local taxes. The seventh step was the identification of the actions needed to be taken by the City of West Bend and by each of the other concerned levels and units of government to create the recommended transit system.

Map 1

STUDY AREA FOR THE CITY OF WEST BEND TRANSIT SYSTEM FEASIBILITY STUDY AND DEVELOPMENT PLAN: 1992-1996



Source: SEWRPC.

STUDY AREA

The study area considered in this report consists of the geographic area shown on Map 1. The study area is located in the north-central portion of Washington County and consists of the City of West Bend and the Town of West Bend, as well as portions of the Towns of Barton, Farmington, and Trenton. The study area encompasses approximately 63.4 square miles. The City of West Bend, based on 1985 corporate limits, comprises about 8.2 square miles, or

about 13 percent of the total planning area. The Town of Barton comprises about 14.6 square miles, or about 23 percent of the planning area; the Town of Farmington comprises about 3.1 square miles, or about 5 percent of the planning area; the Town of Trenton about 17 square miles, or about 27 percent of the planning area; and the Town of West Bend about 20.5 square miles, or about 32 percent of the planning area.

STUDY ORGANIZATION

The preparation of this transit development plan was a joint effort of the staffs of the City of West Bend and the Southeastern Wisconsin Regional Planning Commission. Additional staff assistance was obtained as necessary from certain other agencies concerned with transit development in the study area, including the Wisconsin Department of Transportation.

To provide guidance to the technical staffs in the preparation of this plan, and to more directly and actively involve concerned and affected public officials and citizen leaders in the development of transit service policies and improvement proposals, the City of West Bend created the West Bend Mass Transportation Citizens and Technical Coordinating and Advisory Committee. The full membership of this Committee is listed on the inside front cover of this report.

SCHEME OF PRESENTATION

This planning report consists of nine chapters. Following this introductory chapter, Chapter II, "Transit System Development Objectives and Standards," sets forth a set of transit service objectives and supporting performance standards and design criteria used to identify deficiencies in the existing transit services provided within the study area, and to design and evaluate alternative and recommended transit services to alleviate such deficiencies. Chapter III, "Land Use and Travel Patterns," describes the pertinent land use, demographic, and economic characteristics; the major person-trip generators in the study area; and the travel habits of study area residents. Chapter IV, "Existing Transit Services," presents a description of the existing transit services within the study area during 1990, including descriptions of taxicab service, specialized transportation services for the disabled, yellow school bus service, and intercity bus service. Chapter V, "Evaluation of Existing Transit Services," presents an evaluation of the performance of the existing regular and specialized transit services, identifying service-related problems and deficiencies. Considered are population and land uses served, location of transit-dependent population groups, jobs served, and existing travel habits and patterns. Chapter VI, "Existing Transit Legislation and Regulations," summarizes legislation and related regulations existing at the federal, state, and local levels affecting the provision of transit service in the study area. Importantly, this chapter provides a description of the current state and federal transit assistance programs which can be drawn upon to provide financial assistance to fund the operation of any recommended transit service improvements. Chapter VII, "Alternative Transit Services," identifies, describes, and evaluates a number of alternative transit systems that could be considered to provide improved transit service in the study area. Chapter VIII, "Recommended Plan," sets forth a detailed description of the recommended transit system development plan for the City of West Bend. Recommendations are included pertaining to regular transit services for the general public, as well as specialized transit services for disabled persons; transit system management, operation and capital needs; marketing; capital and operating costs; fare structure and operating revenues; and operating deficits. This chapter also includes a financing plan, identifying amounts and sources of public financial assistance needed to fund projected capital costs and operating deficits for the recommended transit system. Finally, this chapter lists the actions required to be taken by each level and unit of government concerned to carry out the recommended plan in an orderly and timely manner. Chapter IX, "Summary and Conclusions," provides a summary of the significant findings and recommendations of the planning effort.

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Chapter II

TRANSIT SYSTEM DEVELOPMENT OBJECTIVES AND STANDARDS

INTRODUCTION

One of the critical steps in the preparation of any transit system development plan is the articulation of the objectives to be served by the transit system, together with the identification of supporting standards which can be used to measure the degree of attainment of the objectives. The objectives and standards provide the basis upon which the performance of existing transit services may be assessed, alternative service plans designed and evaluated, and recommendations for improvements made. The objectives should, therefore, represent the level of transit service and system performance desired by the City of West Bend. Only if the objectives and standards clearly reflect the transit-related goals of the community will the recommended transit system development plan provide the desired level of service within the limits of available financial resources.

The following sections of this chapter present the transit objectives, principles, and standards formulated and approved by the Advisory Committee guiding the West Bend transit system development plan preparation effort. The objectives and supporting standards were used in evaluating existing transit services, and in designing and evaluating alternative transit system development plans. A glossary of technical terms used in this chapter or which appear later in this report is presented in Appendix A.

OBJECTIVES

Transit system development objectives and standards should reflect the underlying values of the elected officials and citizens of the community to be served. Accordingly, the task of formulating objectives and standards should involve actively interested and knowledgeable public officials and private citizens representing a broad cross-section of interests in the community, as well as transit technicians. Accordingly, one of the important functions of the West Bend Mass Transportation Citizens and Technical Coordinating and Advisory Committee was to articulate transit service objectives and supporting standards. By drawing upon the collective knowledge, experience, views, and values of the members of the Committee, it is believed that a meaningful expression of the transit system performance desired by the City of West Bend was obtained and a relevant set of transit service objectives and supporting standards defined.

The specific objectives adopted basically envision a transit system which will effectively serve the West Bend area and, principally, the City of West Bend, while minimizing the costs entailed. More specifically, the following objectives were adopted by the Advisory Committee:

1. The transit system should serve those areas of the City and its immediate environs which are fully developed for urban land use at medium and high densities and, in particular, the transit-dependent population residing within those areas.

2. The transit system should promote the effective use of transit services and promote user convenience, comfort, and safety.

3. The transit system should promote the efficiency of the total transportation system.

4. The transit system should be economical and efficient, meeting all other objectives at the lowest possible cost.

PRINCIPLES AND STANDARDS

Complementing each of the foregoing transit system development objectives is a planning principle and a set of service and design standards, as set forth in Table 1. The planning principle supports each objective by asserting its validity. Each set of standards is directly related to the transit service objective and serves several purposes, including: to facilitate quantitative application of the objectives in the evaluation of existing transit services; to provide guidelines for the consideration of new or improved transit services; and to provide warrants for capital projects. The standards are intended to include all relevant and important means to measure and indicate the degree to which existing or

Table 1

PUBLIC TRANSIT SERVICE OBJECTIVES, PRINCIPLES, AND STANDARDS FOR THE WEST BEND TRANSIT SYSTEM FEASIBILITY STUDY AND DEVELOPMENT PLAN

Objective	Principle	Standards
1. The public transit system should serve those areas of the City and its immediate environs which are fully developed for urban land uses at medium or high densities and, in particular, the transit dependent population residing within those areas	Public transit can provide an important means of access for all segments of the population, but particularly for low- to middle-income households, the youth and elderly, and the disabled	1. Regularly scheduled local fixed-route or demand-responsive transit service should be provided only within areas of contiguous high- and medium-density urban development[a] 2. Demand-responsive transit service may be provided to areas of low-density development and rural areas as a supplement for fixed-route public transit service and as a specialized service to improve the mobility of elderly and handicapped persons 3. Public transit service to residential neighborhoods[b] and major nonresidential land use areas should be maximized. Major nonresidential land use areas served should include the following: a. Major regional, community, and neighborhood retail and service centers[c] b. Educational institutions including universities, colleges, vocational schools, secondary schools, and parochial schools[d] c. Major community and special medical centers[c] d. Major employment centers[e] e. Major governmental and public institutional centers[c] f. Major recreational areas[f] 4. The population served, particularly that portion which is transit-dependent, should be maximized 5. The number of jobs served should be maximized 6. Specialized transportation service should be available within the transit service area to meet the transportation needs of those portions of the disabled[g] population unable to avail themselves of regular transit service
2. The public transit system should promote the effective use of public transit services and promote user convenience, comfort, and safety	The benefits of a public transit system are, to a large extent, greatly related to the degree to which it is used. The extent of such use, as measured by public transit ridership, is a function of the degree to which the transit facilities and services provide for user convenience, comfort, and safety	1. Ridership on the public transit system should be maximized. The following minimum systemwide effectiveness levels[h], however, should be maintained: a. For fixed-route transit service: • Five annual rides per capita • 0.8 revenue passenger per revenue vehicle mile • Ten revenue passengers per revenue vehicle hour b. For demand-responsive transit service: • Three annual rides per capita • 0.3 ride per vehicle mile • Three rides per vehicle hour

Table 1 (continued)

Objective	Principle	Standards
No. 2 (continued)		2. Bus routes with ridership and effectiveness levels which are less than 80 percent of the systemwide average should be reviewed for potential service changes unless special circumstances warrant otherwise.[i] The measures used to evaluate individual route ridership and effectiveness levels should include: a. Total boarding passengers per route b. Boarding passengers per route mile c. Boarding passengers per revenue vehicle mile d. Boarding passengers per revenue vehicle hour e. Percent of weekday ridership carried on nonweekdays 3. The fare policy for the public transit system should encourage transit ridership by providing special or discounted fares for certain population groups, including transit dependent persons and frequent transit riders 4. Public transit service should be designed to provide adequate capacity to meet existing and projected demand. The average maximum load factor[j] for local fixed-route transit service should not exceed 1.25 during peak periods; and should not exceed 1.0 during off-peak periods and at the 10-minute point.[k] The maximum load factor for demand-responsive transit service should not exceed 1.0 at all times of operation 5. The following minimum travel speeds for local transit service should be provided on the transit system: a. For fixed-route transit service: • Five miles per hour within the central business district • Ten miles per hour outside the central business district b. For demand-responsive transit service: • Ten miles per hour 6. The public transit system should provide a level of service commensurate with potential demand. Operating headways for all fixed-route public transit service should be capable of accommodating passenger demand at the recommended load standards. Response time for demand-responsive service should not exceed 30 minutes 7. The public transit system should be designed and operated to maximize schedule adherence and be "on time" at least 95 percent of the time[l] 8. Transit stops for fixed-route local transit service should be located two to three blocks apart along the entire route 9. Public transit routes should be direct in alignment, with a minimum of turns, and arranged to minimize transfers and duplication of service, which would discourage transit use 10. Consideration should be given in the design of transit routes and the identification of bus stop locations to minimizing conflicts with vehicular traffic and pedestrian activity

Table 1 (continued)

Objective	Principle	Standards
No. 2 (continued)		11. Local fixed-route transit service should have route spacings of one-half mile in high-density and medium-density areas 12. To provide protection from the weather, bus passenger shelters of an attractive design should be constructed at all major loading points along local bus routes[m] 13. Paved passenger loading areas should be provided at all fixed-route transit loading and unloading points, and all such points should be clearly marked by easily recognized bus stop signs 14. Consideration should be given to rehabilitating or replacing each public transit vehicle at the end of its normal service life, which shall be defined as follows: a. For standard size, heavy duty (approximately 35 to 40 feet) transit buses, normal service life is considered to be at least 12 years or at least 500,000 miles b. For medium size, heavy duty (approximately 30 feet) transit buses, normal service life should be considered to be at least 10 years or 350,000 miles c. For small, medium duty (under 30 feet) transit buses, normal service life should be considered to be at least seven years or at least 200,000 vehicle miles d. For other vehicles such as automobiles and regular or specialized vans, normal service life should be considered to be at least four years or at least 100,000 vehicle miles 15. Preventive maintenance program standards should be established to achieve, at a minimum, 4,000 miles without an in-service breakdown
3. The public transit system should promote the efficiency of the total transportation system	Public transit facilities and services can promote economy and efficiency in the total transportation system. The public transportation system has the potential to supply additional passenger transportation capacity, which can alleviate peak loadings on arterial street facilities and assist in reducing the demand for land necessary for parking facilities at major centers of land use activity. Efficient public transit service also has the potential to reduce energy consumption and air pollutant emissions	1. The total amount of energy, and the total amount of energy per passenger mile consumed in operating the total transportation system of which the transit system is an integral part, particularly petroleum based fuels, should be minimized 2. The amount of highway system capacity which must be provided to serve travel demand should be minimized

Table 1 (continued)

Objective	Principle	Standards
4. The public transit system should be economical and efficient, meeting all other objectives at the lowest possible cost	The total resources of the City are limited, and any undue investment in transportation facilities and services must occur at the expense of other public and private investments; therefore, total transit system costs should be minimized for the desired level of transit service and transit revenues should be maximized to maintain the financial stability of the system	1. The total operating and capital investment for the public transit system should be minimized and reflect efficient utilization of resources 2. The operating expense per total vehicle mile, per platform hour, and per revenue passenger; and the operating deficit per revenue passenger should be minimized.[n] Any increase in such costs which may be incurred each year should not exceed the average percentage increase experienced by small urban transit systems statewide 3. Transit system operating revenues generated from passenger fares and sources other than general public operating subsidies should be maximized. Fixed-route transit services should recover at least 15 percent of operating expenses from such revenues. Demand-responsive service should recover at least 35 percent of operating expenses from such revenues[o] 4. Periodic increases in passenger fares should be considered to maintain the financial stability of the transit system[p] 5. Bus routes with financial performance levels which are less than 80 percent of the systemwide average should be reviewed for service changes unless special circumstances warrant otherwise.[i] The measures used to evaluate individual route financial performance should include: a. Operating expense per boarding passenger b. Operating deficit per boarding passenger c. Percent of operating expenses recovered from operating revenues, excluding general public operating subsidies 6. Adverse impacts on existing private transit operators resulting from public transit system operation should be minimized

[a]The categories of urban residential land use development densities shall be defined as follows:

Category	*Number of Dwelling Units per Net Residential Acre*
Urban High Density	*7.0-17.9*
Urban Medium Density . . .	*2.3-6.9*
Urban Low Density	*0.7-2.2*
Suburban	*0.2-0.6*
Rural	*Less than 0.2*

[b]Residential neighborhoods shall be considered as served by local fixed-route transit service when located within a one-quarter mile walking distance of a bus route; and by demand-responsive transit service when located within the specified geographic service area of the demand-responsive transit system.

[c]Shall be considered as served by local fixed-route transit service if located directly on a bus route; and by demand-responsive transit service when located within the specified geographic service area of the demand-responsive transit system.

[d]Shall be considered as served by local fixed-route transit service if located within one-eighth mile of a bus route; and by demand-responsive transit service when located within the specified geographic service area of the demand-responsive transit system.

Table 1 (continued)

[e]A major employment center shall be defined as an existing or planned concentration of industrial, commercial, or institutional establishments providing employment for more than 100 persons. Employment centers shall be considered as served by local fixed-route transit service if located within one-eighth mile of a bus route; and by demand-responsive transit service when located within the specified geographic service area of the demand-responsive transit system.

[f]Shall be considered as served by local fixed-route transit service if located within one-quarter mile of a bus route; and by demand-responsive transit service when located within the specified geographic service area of the demand-responsive transit system.

[g]The disabled shall be defined as individuals who, by reason of illness, injury, congenital malfunction, or other permanent or temporary incapacity or disability, are unable without special facilities or special planning or design to utilize public transit services.

[h]The minimum systemwide effectiveness levels specified within this standard are based upon the estimated average annual ridership per capita, per revenue vehicle mile, and per revenue vehicle hour for the nine small urban bus systems and 22 shared-ride taxicab systems within Wisconsin during 1989.

[i]A reasonable period of time should be allowed for ridership to develop and stabilize before evaluating the performance of new fixed-route and demand-responsive transit services to determine if the service should be continued, modified, or eliminated. Generally, new transit services should achieve 30 percent of projected performance levels after six months of operation; 60 percent of projected performance levels after one year of operation; and 100 percent of projected performance levels after two years of operation.

[j]The average maximum load factor is calculated by dividing the number of passengers at the maximum loading point of a route by the number of seats at that point during the operating period.

[k]The 10-minute point is a point located 10 minutes travel time from the maximum loading point on a route. This means that passengers generally should not have to stand on board the public transit vehicle for longer than 10 minutes.

[l]"On time" is defined as schedule adherence within the range of one minute early and three minutes late.

[m]Construction of bus passenger shelters at transit loading points should generally be considered where one or more of the following conditions exist: 1) the location serves major facilities designed specifically for the use of, or is frequently used by, elderly or disabled persons; 2) the location has a boarding passenger volume of 50 or more passengers per day; 3) the location is a major passenger transfer point between bus routes; or 4) the location is in a wide open space where waiting patrons would be unprotected from harsh weather conditions.

[n]The estimated averages for such costs for the nine small urban fixed-route transit systems and the 22 shared-ride taxicab systems within Wisconsin during 1989 were as follows:

Performance Measure	Average for Small Urban Bus Systems	Average for Shared-Ride Taxicab Systems
Operating expense per total vehicle mile	$ 2.52	$ 1.93
Operating expense per total vehicle hour	29.72	11.78
Operating expense per revenue passenger	2.67	3.68
Operating deficit per revenue passenger	2.26	2.39

[o]The minimum proportions of operating expenses recovered from operating revenues specified in this standard are based upon the estimated averages for the nine small urban bus systems and the 22 shared-ride taxicab systems within Wisconsin during 1989.

[p]Increases in passenger fares should generally be considered when: 1) the actual cost recovery rate for the transit system goes below the rate prescribed in Standard No. 3 under Objective 4; 2) operating expenses for the transit system have increased by 10 to 15 percent since fares were last raised; or 3) projected levels of federal and state operating assistance funds would require an increase in projected local operating assistance levels above that determined to be acceptable by local officials.

Source: SEWRPC.

proposed transit services contribute to the attainment of each objective.

The performance evaluation of existing transit services utilized in the current study was based upon an assessment of transit performance on a systemwide basis. The service standards set forth in this chapter represent a comprehensive list from which specific performance standards and measures, as deemed appropriate, were drawn in conducting the performance evaluation. A more complete description of the evaluation process is presented in Chapter V.

A number of the service standards set forth in Table 1 can also provide guidance toward meeting certain requirements which the Wisconsin Department of Transportation has attached to the use of state urban transit operating assistance funds. As a condition of eligibility for receiving state urban transit operating assistance, applicants must annually establish multiyear service and performance goals, and assess the effectiveness of the applicant's transit system in relation to those goals on a quarterly basis. At a minimum, systemwide goals must be established for the following performance indicators: operating expense per total vehicle mile; operating expense per platform hour; operating expense per revenue passenger; the proportion of operating expenses recovered from operating revenues; revenue passengers per revenue vehicle mile; and revenue passengers per service area population. The service standards set forth in this chapter which can be drawn upon to establish the state-required performance goals are set forth in Table 2.

OVERRIDING CONSIDERATIONS

The objectives and standards set forth in Table 1 were intended to be used to guide the evaluation of the performance of existing transit services and the design and evaluation of transit service improvements. However, any application of the objectives and standards in the preparation of a transit system development plan for the City of West Bend must recognize several overriding considerations.

First, it must be recognized that an overall evaluation of existing transit service performance and alternative transit service plans must be made on the basis of cost. Such an analysis may show that attainment of one or more standards is beyond the economic capability of the community and, therefore, that the standards cannot be met practically and must be either modified or eliminated.

Second, it must be recognized that a transit system is unlikely to fully meet all the standards and that the extent to which each standard is met, exceeded, or violated must serve as the final measure of the ability of the transit system to achieve the objective which a given standard complements.

Third, it must be recognized that certain intangible factors, including the perceived value of transit service to the community and potential acceptance by the concerned elected officials, may influence and, therefore, must be considered in the preparation and selection of a recommended plan. Inasmuch as transit service may be perceived as a valuable service within the community, the community may decide to initiate or retain such services regardless of performance or cost. With regard to acceptance of recommended transit services, only if a considerable degree of such acceptance exists will service recommendations be implemented and their anticipated benefits realized.

Table 2

TRANSIT SERVICE OBJECTIVES AND STANDARDS WHICH CAN BE USED TO DEVELOP STATE-REQUIRED SYSTEMWIDE PERFORMANCE GOALS

Objectives and Standards	Performance Measures
Objective No. 2—Promote Transit Utilization and Provide for User Comfort, Convenience, and Safety	
Standard No. 1: Maximize Transit System Ridership	For fixed-route transit service[a]: • Five rides per capita • 0.8 revenue passenger per revenue vehicle mile • Ten revenue passengers per revenue vehicle hour For demand-responsive or taxicab service[b]: • Three rides per capita • 0.3 ride per vehicle mile • Three rides per vehicle hour
Objective No. 4—Provide Economical and Efficient Service	
Standard No. 2: Minimize Operating Expenses and Operating Deficit per Unit of Transit Service and per Transit Ride	Increases in operating expenses per total vehicle mile, per platform hour, and per revenue passenger; and increases in operating deficit per revenue passenger should not exceed the average percentage increase for small urban transit systems statewide
Standard No. 3: Maximize Percent of Operating Expenses Recovered Through Operating Revenues	Recover at least 15 percent of operating expenses from operating revenues for fixed-route transit service; and 35 percent of operating expenses from operating revenues for demand-responsive or taxicab service[c]

[a]*The specified performance levels are based upon the estimated average annual performance levels for the nine small urban bus systems within Wisconsin during 1989.*

[b]*The specified performance levels are based upon the estimated average performance levels for the 22 shared-ride taxicab systems within Wisconsin during 1989.*

[c]*The specified performance levels are based upon the estimated farebox recovery rates for the nine small urban bus systems and the 22 shared-ride taxicab systems within Wisconsin during 1989. It should be noted that the adopted regional transportation system plan specifies that public transit services should recover 50 percent of their operating expenses from operating revenues.*

Source: SEWRPC.

Chapter III

LAND USE AND TRAVEL PATTERNS

INTRODUCTION

In order to evaluate properly the potential need for transit service improvements in the City of West Bend and environs, it is necessary to consider those factors which affect, or are affected by, the provision of transit service. These factors include the land use pattern and the size and distribution of resident population and employment in the study area, as well as the travel habits and patterns of the population of the study area. This chapter presents the results of an inventory of these important determinants necessary to assess the need for transit service in the West Bend area.

LAND USE

The pattern of urban growth in the West Bend study area from 1850 through 1985 is depicted on Map 2. Over the 100-year period from 1850 to 1950 urban development in the study area occurred in relatively tight, generally concentric rings emanating outward from the central portion of the City of West Bend and of the Village of Barton. During the 1950s, changes occurred in the pattern of development in the area as urban development started becoming discontinuous and diffused, occurring in scattered enclaves throughout the surrounding rural areas in the Towns of Barton, Trenton, and West Bend. In 1961 the Village of Barton and the City of West Bend consolidated. Since 1960 development and urbanization in the study area have continued in a scattered pattern, especially since the mid-1970s, with urban land uses in the study area having increased from about 5,600 acres in 1970 to about 7,500 acres in 1985, or by about 34 percent. During this same period, the resident population of the study area increased from about 22,400 persons in 1970 to about 30,900 persons in 1985, or by 38 percent. This rapid urbanization has been marked by lower overall population densities, a diffusion of both commercial and residential development, and increased use of shopping and service establishments outside the downtown area.

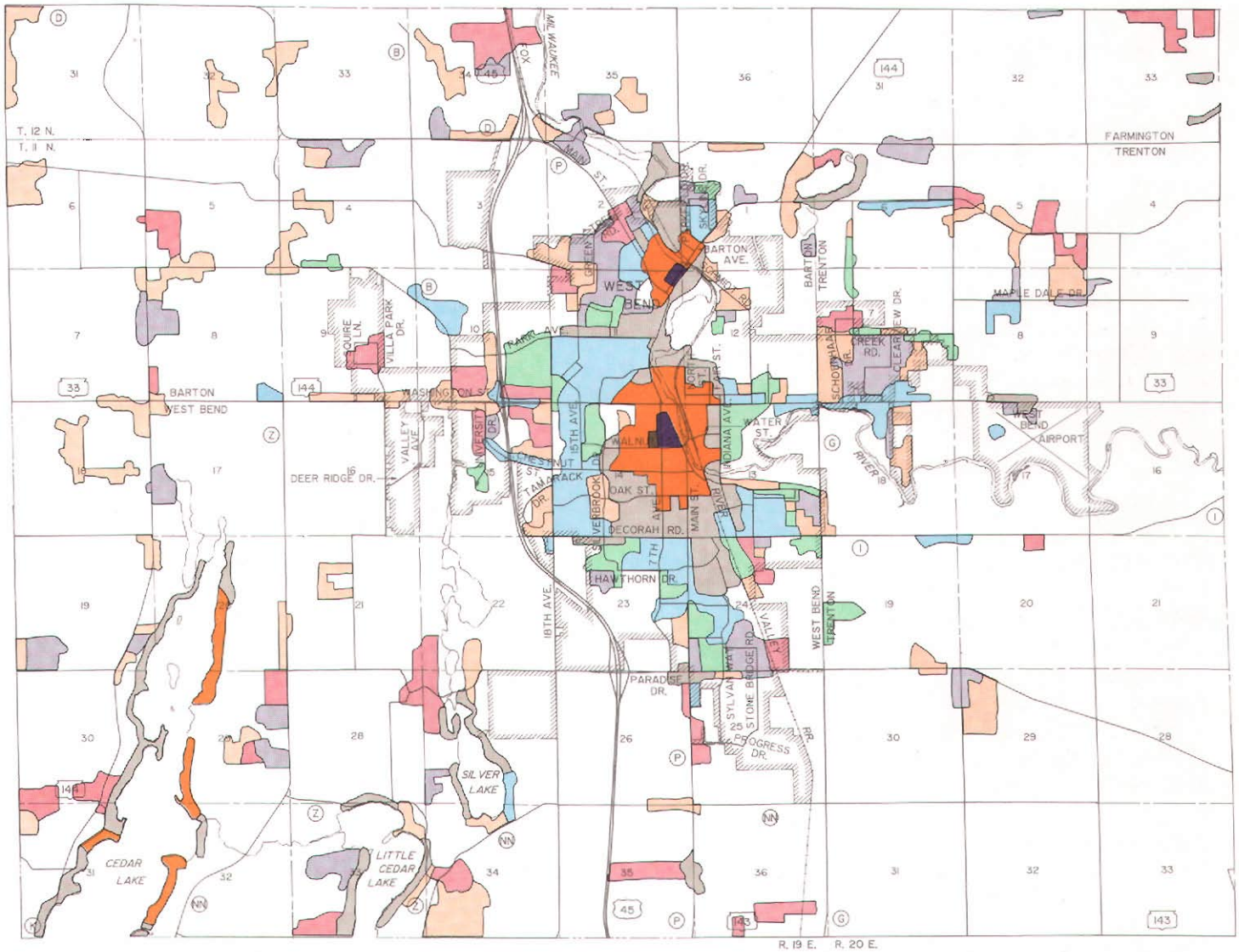
Table 3 and Map 3 set forth the distribution of land uses in 1985 in the study area. As shown in the table, residential development was the predominant type of land use in the urban portion of the study area. It is important to note that, despite rapid urbanization, much of the land in the study area is still in open, rural uses.

The overall pattern of intensity, or density, of urban land use in 1985 in the study area is shown in Map 4. This depiction of land use density reflects the density of residential land use and the density of other urban land uses, including commercial and industrial land uses, in the study area. Areas of high and medium density land uses currently exist only in the City of West Bend. Such land use densities are typically necessary to support the efficient and effective provision of transit services, such as local fixed-route bus service operating with regular schedules or demand-responsive transit services. Thus, based on the pattern of urban development in the study area, the only sizable areas that are currently fully developed for urban use and that are most likely to be capable of supporting transit service are in the City of West Bend. It should be noted, however, that there exist concentrations of residential and other development in the outlying areas surrounding the City.

It should be noted that Maps 2, 3, and 4 do not reflect the urban growth which has occurred in the study area since 1985, especially in areas to the west and south of the City of West Bend. This post-1985 development is shown on Map 5. Table 4 and Map 6 describe and depict in greater detail the types and locations of the new urban residential development that has most recently occurred, is currently under construction, or which has been proposed. As shown on Map 6, recent residential development has been concentrated largely adjacent to the already developed portions of the City of West Bend, with some residential development filling in open land in the older parts of the City. Recent commercial development has, for the most part, consisted of automobile-oriented convenience and service establishments. Exceptions to this have been West Bend Mutual Insurance Company, which has relocated from the 1100 block of S. Main Street to Paradise Drive and 18th Avenue, and

Map 2

HISTORIC URBAN GROWTH IN THE WEST BEND STUDY AREA: 1850-1985



LEGEND

1850	1964 - 1970
1851 - 1880	1971 - 1975
1881 - 1920	1976 - 1980
1921 - 1950	1981 - 1985
1951 - 1963	

GRAPHIC SCALE

Source: SEWRPC.

Table 3

DISTRIBUTION OF LAND USE IN THE WEST BEND STUDY AREA: 1985

Land Use Category	Area (acres)[a]	Percent of Urban or Rural Area	Percent of Total Study Area
Urban			
Single-Family Residential	3,520	46.9	8.7
Two-Family Residential	152	2.0	0.4
Multi-Family Residential	131	1.7	0.3
Commercial	303	4.0	0.8
Manufacturing and Wholesale Industrial	256	3.4	0.6
Transportation, Communication, and Utilities	2,197[b]	29.2	5.4
Governmental and Institutional	455	6.1	1.1
Recreational	499	6.7	1.2
Subtotal	7,513	100.0	18.5
Rural			
Agricultural and Other Open Lands	22,319	67.5	55.0
Woodlands	4,177	12.6	10.3
Wetlands	4,499	13.6	11.1
Extractive and Landfill	244	0.7	0.6
Surface Water	1,839	5.6	4.5
Subtotal	33,078	100.0	81.5
Total	40,591	--	100.0

[a]*The area shown for each land use category includes off-street parking areas.*

[b]*The area shown includes approximately 505 acres used for arterial streets and highways.*

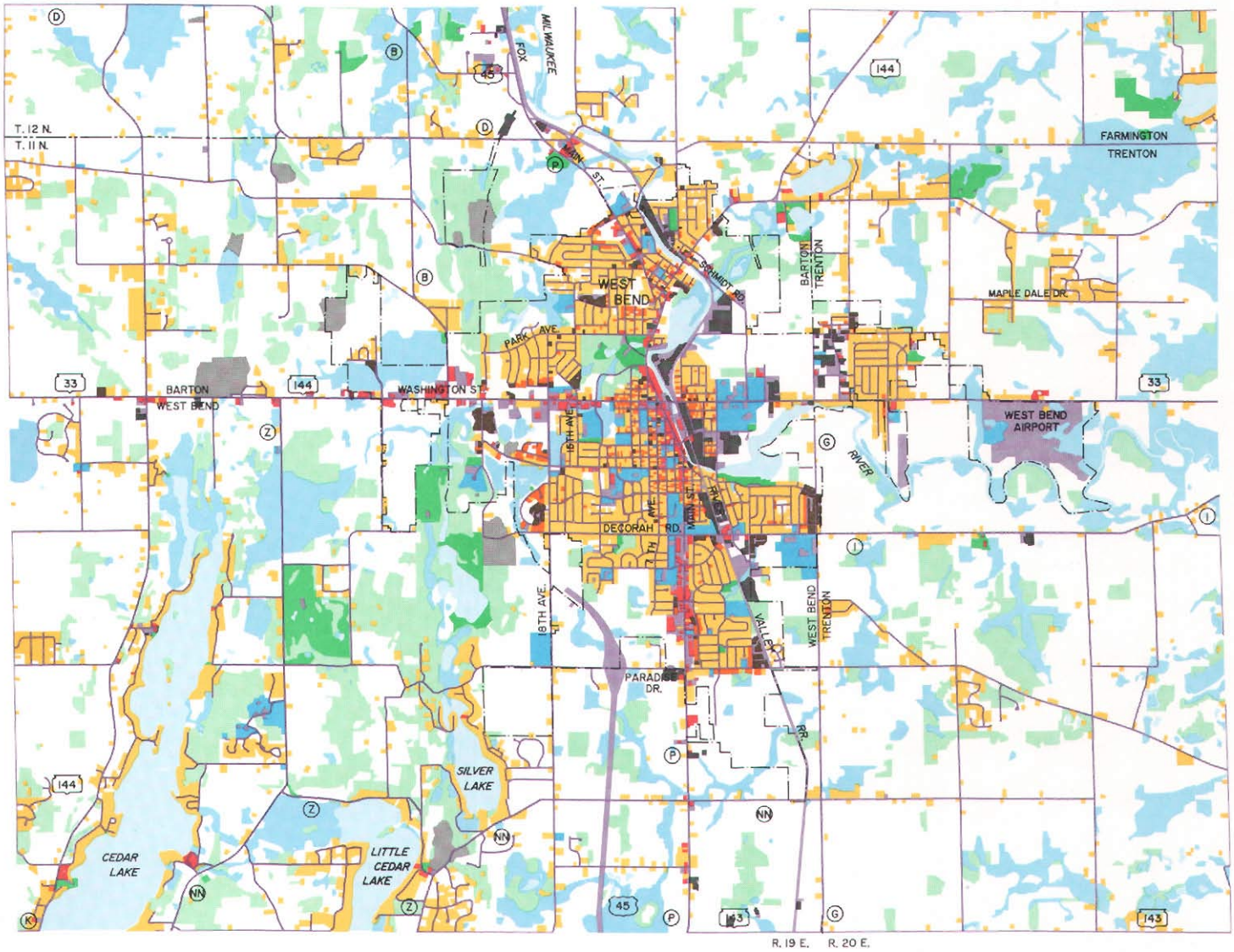
Source: SEWRPC.

the new Sentry Food Store on S. Main Street. Most new commercial development has located in the outlying portions of the City along W. Washington Street and S. Main Street. Much of the public and institutional development consists of expansion projects at already established locations throughout the City; recent industrial development has been centered in the industrial park areas. Overall, much of the recent development is close to the new USH 45 bypass, a four-lane divided freeway facility. City officials have indicated that, based on the current trends, most future development, both residential and non-residential, may be expected to continue to be situated at the edge of existing development.

For transit planning purposes, major traffic generators were identified as specific land uses or concentrations of such land uses which may be expected to attract a relatively large number of person trips and, therefore, have the potential to attract a relatively large number of transit trips. The following categories of land uses were identified as major traffic generators for transit planning purposes in the study area: 1) shopping centers; 2) educational institutions; 3) hospitals and medical centers; 4) governmental and public institutional centers; 5) major employers; and 6) parks and recreational areas. The major traffic generators identified in each category are listed in Tables 5 through 10.

Map 3

LAND USE IN THE WEST BEND STUDY AREA: 1985



LEGEND

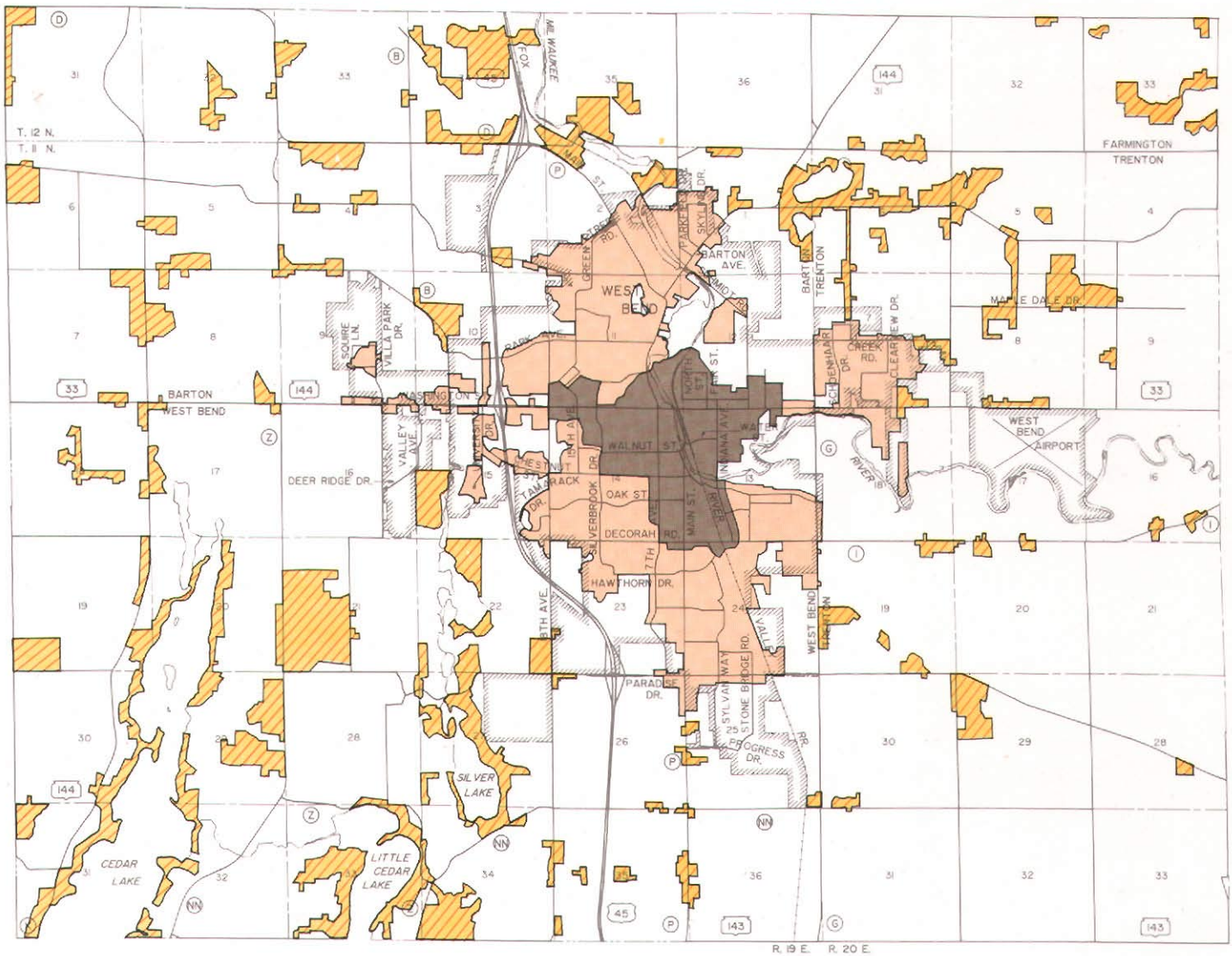
- SINGLE FAMILY RESIDENTIAL
- TWO-FAMILY RESIDENTIAL
- MULTI-FAMILY RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- EXTRACTIVE AND LANDFILL
- TRANSPORTATION, COMMUNICATIONS AND UTILITIES
- GOVERNMENTAL AND INSTITUTIONAL
- RECREATIONAL
- WETLANDS
- WOODLANDS
- WATER
- AGRICULTURAL AND OTHER OPEN LANDS
- STREETS AND HIGHWAYS

GRAPHIC SCALE

Source: SEWRPC.

Map 4

GENERALIZED LAND USE DENSITY IN THE WEST BEND STUDY AREA: 1985



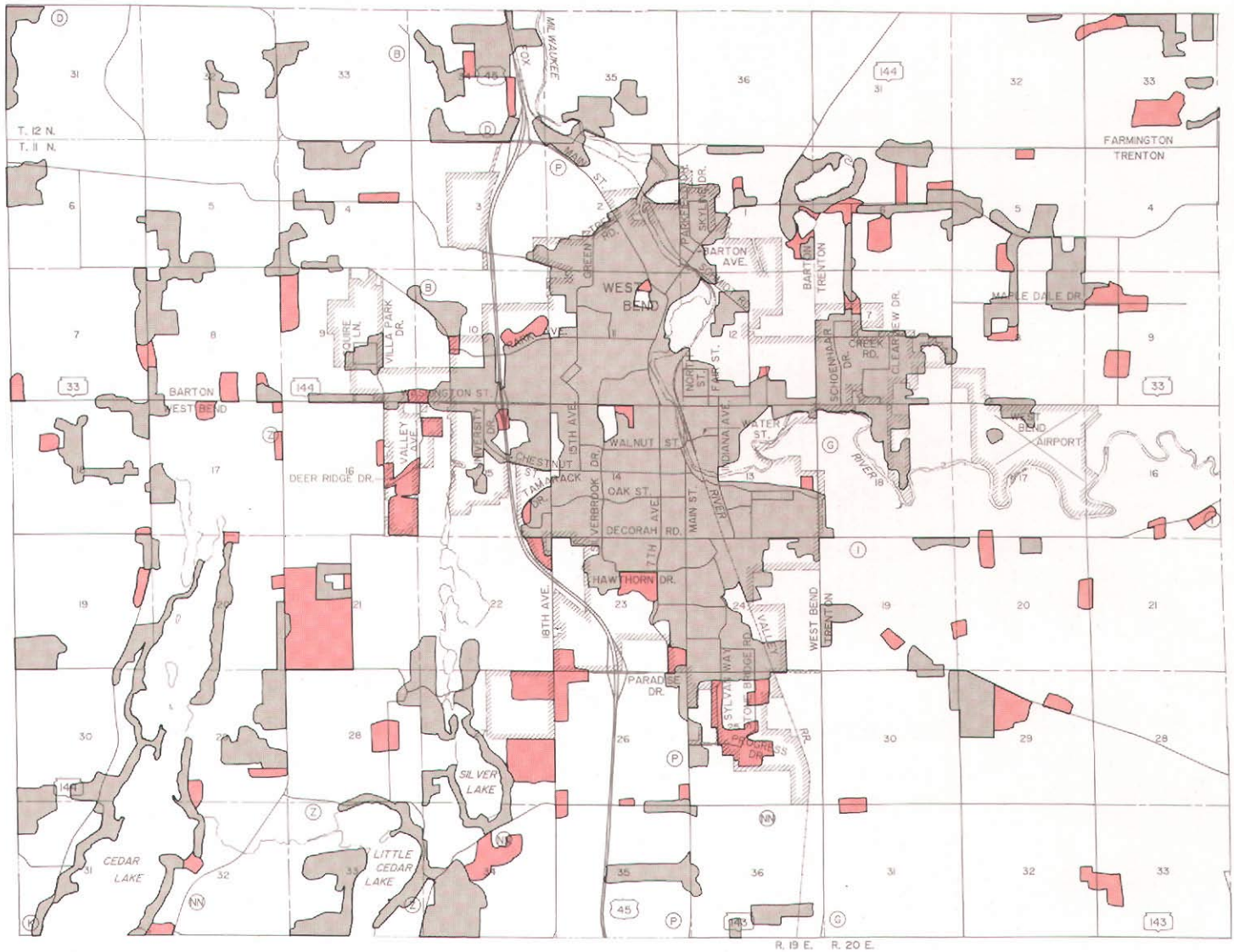
LEGEND

- LOW DENSITY URBAN (0.7-2.2 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- MEDIUM DENSITY URBAN (2.3-6.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- HIGH DENSITY URBAN (7.0-17.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)

Source: SEWRPC.

Map 5

URBAN GROWTH IN THE WEST BEND STUDY AREA: 1985-1990



LEGEND

- 1850 - 1985
- 1986 - 1990

Source: SEWRPC.

Table 4

AREAS OF NEW AND EXPANDED RESIDENTIAL DEVELOPMENT IN THE WEST BEND STUDY AREA: 1988-1990

Number on Map 6	Name	Location	Size		Status[a]
			Number of Housing Units	Type of Housing	
1	Park Place	City of West Bend	114	Condominiums	Completed
2	Fox Ridge Subdivision	City of West Bend	50	Single-family	In development
3	Sheridan Drive	City of West Bend	16	Multi-family	Completed
4	Minz Estates & Peters	City of West Bend	208	Multi-family	In development
5	Roosevelt Drive Apartments	City of West Bend	24	Multi-family	Completed
6	Didier Estates	City of West Bend	112	Single-, double- and multi-family	Under construction
7	Betty Erdman	City of West Bend	12	Multi-family	Completed
8	Greentree Estates	City of West Bend	37	Single- and double-family	Under construction
9	Parkside Village	City of West Bend	73	Single-family	In development
10	Commons of Ridgeway	City of West Bend	30	Condominiums	In development
11	Greenbriar Homes	City of West Bend	10	Condominiums	Completed
12	Barrington Village	City of West Bend	40	Condominiums	Completed
13	Weslyn Court	City of West Bend	92	Multi-family	Completed
14	N. University Drive	City of West Bend	16	Multi-family	Completed
15	Woodside Manor No. 1	City of West Bend	35	Single-family	In development
16	John Becker	City of West Bend	5	Multi-family	Completed
17	Kuechler	City of West Bend	4	Multi-family	Completed
18	Harrison Court	City of West Bend	10	Single-family	Completed
19	John Becker	City of West Bend	10	Multi-family	Completed
20	Equity Partners	City of West Bend	54	Multi-family	In development
21	Deer Ridge Estates	City of West Bend	24	Double-family, condominiums	In development
22	Cedar Ridge Retirement Campus	City of West Bend	328	Multi-family	Completed
23	Park Avenue Apartments	City of West Bend	84	Multi-family	Completed
24	University Drive Condominiums	City of West Bend	30	Condominiums	Completed
25	Wiedmeyer	City of West Bend	44	Multi-family	Approved
26	Royal Oaks	City of West Bend	75	Multi-family	Approved
27	Vogt Lands	City of West Bend	76	Multi-family	Under construction
28	Henke Lands	City of West Bend	32	Multi-family	Approved
29	Woods of Ridgeway	City of West Bend	19	Single-family	In development
30	Wiedmeyer Lands	Town of Trenton	200+	Single-, double-, and multi-family	Proposed

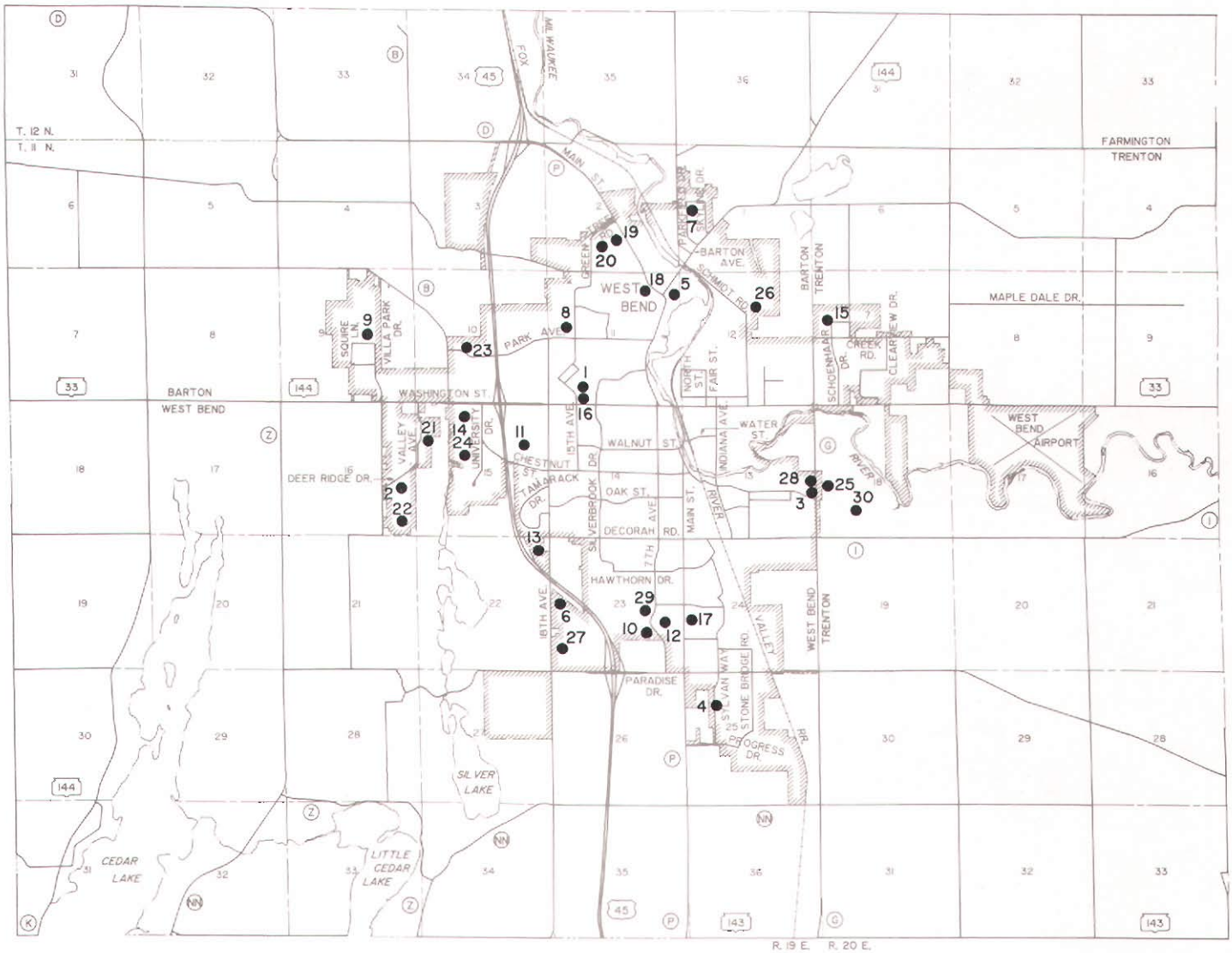
[a] *Defined as follows:*

Proposed: Residential development has been proposed to the City Plan Commission.
Approved: A development has been approved by the City, but no construction has started yet.
Under construction: A development is in the initial construction stage.
In development: A development is partially completed, with more construction planned to occur.
Completed: A development is basically completed and ready for occupancy.

Source: City of West Bend and SEWRPC.

Map 6

AREAS OF NEW AND EXPANDED RESIDENTIAL DEVELOPMENT IN THE WEST BEND STUDY AREA: 1988-1990



LEGEND

- ● AREA OF NEW RESIDENTIAL DEVELOPMENT
- | IDENTIFICATION NUMBER (SEE TABLE 4)

Source: SEWRPC.

Table 5

SHOPPING CENTERS IN THE WEST BEND STUDY AREA: 1990

Shopping Center or Area	Location[a]
Major Commercial Center	
Downtown Business District[b]	Main Street between 8th Avenue and Walnut Street
Major Shopping Center[c]	
Paradise Mall	1530 S. Main Street
Minor Shopping Centers and Strip Commercial Areas[d]	
Barton Business District	Barton Avenue between Main Street and Schmidt Road
West Bend Plaza	806 S. Main Street
Westfair Mall	1719 S. Main Street
Westwood Mall	2380 W. Washington Street
S. Main Street Strip Development	Between W. Decorah Road and Paradise Drive
W. Washington Street Strip Development	Between Silverbrook Drive and Villa Park Drive
Decorah Shopping Center	805 S. Main Street

[a]*All locations are in the City of West Bend.*

[b]*Includes the West Bend Outlet Mall at 180 S. Island Avenue.*

[c]*Defined as including at least two large department stores and any associated shops and services.*

[d]*Defined as including one large department or food store and any associated shops and services; strip commercial areas consist of a mixture of retail and service establishments located along a major traffic artery.*

Source: SEWRPC.

Table 6

EDUCATIONAL INSTITUTIONS IN THE WEST BEND STUDY AREA: 1990

Educational Institutions	Address[a]	Approximate Enrollment[b]
Universities and Technical Schools		
Moraine Park Technical College	2151 N. Main Street	1,730
University of Wisconsin Center Washington County Campus	400 University Drive	830
Public Middle and Senior High Schools		
West Bend High Schools (East and West)	1305 E. Decorah Road	2,050
Badger Middle School	710 S. Main Street	700
Silverbrook Middle School	120 N. Silverbrook Drive	520
Public Elementary Schools		
Barton	614 School Place	440
Decorah	1225 Sylvan Way	470
Fair Park	519 N. Indiana Avenue	540
Green Tree	1330 Green Tree Road	520
McLane	833 Chestnut Street	590
Major Parochial and Private Schools		
Calvary Assembly of God School	1110 E. Decorah Road	100
Good Shepherd Wisconsin Synod Lutheran School	777 S. Indiana Avenue	250
Holy Angels Parish School	230 N. 8th Avenue	350
St. Frances Cabrini School	529 Hawthorn Drive	380
St. John's Lutheran School	899 S. 6th Avenue	280
St. Mary's Immaculate Conception Parish School	415 Roosevelt Drive	180

[a]*All addresses are in the City of West Bend.*

[b]*Colleges and technical school enrollments are indicated for fall 1990, while elementary, middle, and high school and major parochial school enrollments are indicated for the 1990-1991 school year.*

Source: SEWRPC.

Table 7

HOSPITALS AND MEDICAL CENTERS IN THE WEST BEND STUDY AREA: 1990

Hospital or Medical Center	Address[a]
Community Medical Centers[b]	
St. Joseph's Community Hospital	551 Silverbrook Drive
Special Medical Centers[c]	
General Clinic	205 Valley Avenue
West Bend Clinic, S. C.	1700 W. Paradise Drive

[a] *All addresses are in the City of West Bend.*

[b] *Defined as a hospital having a least 100 beds and providing in- and out-patient facilities and laboratory and clinical services.*

[c] *Defined as all other major medical facilities and special clinics offering multispecialty medical services.*

Source: SEWRPC.

POPULATION AND EMPLOYMENT

General Population Characteristics

Table 11 indicates the historic change in population in the City and study area over the period 1960 to 1990. The estimated 1990 resident population of the study area was 34,000 persons, of whom about 25,000, or 73 percent, resided in the City of West Bend. It is estimated that the City of West Bend's population has increased from 10,000 in 1960 to almost 25,000 in 1990. As shown in Table 11, the population in the City of West Bend and in the study area has increased significantly, having more than doubled between 1960 and 1990.

The density of the population in the study area, measured in terms of persons per square mile, is shown by quarter-section on Map 7. The map indicates that substantial areas of medium to high population densities exist only in the City of West Bend and, thus, this area is likely to have the highest current potential to support the

Table 8

GOVERNMENTAL AND PUBLIC INSTITUTIONAL CENTERS IN THE WEST BEND STUDY AREA: 1990

Institutional Center	Address[a]
Regional and County	
Washington County Courthouse	432 E. Washington Street
Washington County Department of Social Services	320 S. 5th Avenue
Washington County Historical Museum	340 S. 5th Avenue
Washington County Office on Aging	401 E. Washington Street
Wisconsin Department of Industry, Labor and Human Relations, Job Service and Unemployment Compensation Division	1043 S. Main Street
Social Security Administration	712 Park Avenue
Comprehensive Community Services Agency of Washington County	515 E. Washington Street
Community and Other	
West Bend City Hall	100 N. 6th Avenue
West Bend Community Memorial Library	230 S. 6th Avenue
West Bend Gallery of Fine Arts	300 S. 6th Avenue
West Bend Joint School District Offices	697 S. 5th Avenue
West Bend Parks, Recreation and Forestry Department	724 Elm Street
West Bend Police Department	325 N. 8th Avenue
Professional Buildings of West Bend, Inc.	1622 Chestnut Street
U. S. Post Office	607 Elm Street
YMCA, Inc.	1111 W. Washington Street

[a] *All addresses are in the City of West Bend.*

Source: SEWRPC.

Table 9

MAJOR EMPLOYERS IN THE WEST BEND STUDY AREA: 1990

Employment Center	Address[a]	Approximate Employment			
		100-249	250-499	500-999	1,000 or More
Industrial/Manufacturing					
Amity Leather Products Company	735 S. Main Street	--	--	X	--
Enger-Kress Company	151 Wisconsin Street	X	--	--	--
Gehl Company	143 Water Street	--	--	X	--
Serigraph, Inc.	760 S. Indiana Avenue	--	--	X	--
West Bend Company	400 E. Washington Street	--	--	--	X
West Bend Industrial Park-East	E. Washington Street at Shoenhaer Drive	--	X	--	--
West Bend Industrial Park-South	E. Progress Drive at Stonebridge Road	X	--	--	--
Retail/Service					
Cedar Lake Home	Town of West Bend	--	X	--	--
General Clinic of West Bend, Inc.	205 Valley Avenue	X	--	--	--
Pick-N-Save (south)	1719 S. Main Street	X	--	--	--
Pick-N-Save (north)	2380 W. Washington Street	X	--	--	--
St. Joseph's Community Hospital	551 Silverbrook Drive	X	--	--	--
Paradise Mall	1530 S. Main Street	--	X	--	--
The Threshold, Inc.	600 Rolfs Road	X	--	--	--
West Bend Mutual Insurance Company	Paradise Drive and 18th Avenue	--	X	--	--
B. C. Ziegler & Company	215 N. Main Street	X	--	--	--
M & I First National Bank	321 N. Main Street	X	--	--	--
Government					
Washington County	432 E. Washington Street	--	--	X	--
City of West Bend	100 N. 6th Avenue	X	--	--	--
Educational					
West Bend Joint School District No. 1	697 S. 5th Avenue	--	--	X	--

NOTE: Only employers having 100 or more employees are listed.

[a]*Unless otherwise noted, all addresses are in the City of West Bend.*

Source: SEWRPC.

efficient operation of transit services. There are also some smaller areas of medium to high population density in the outlying areas around the City of West Bend.

Table 12 indicates the historic change in the number of households in the City and study area over the period 1960 to 1990. Between 1960 and 1970, the percentage increase in the number of households in the City was about 65 percent, or about the same rate as the increase in city population over the same period. However, while population levels in the City increased by about 30 percent between 1970 and 1980, the number of households increased by about 50 percent. During the 10 years between 1980 and 1990, the number of households in the City has continued to increase at a somewhat slower rate of about 25 percent, while city population has increased by about 14 percent. Most of the increases in population and households have occurred during the last five years. Similar changes in population and households numbers have occurred in the study area as a whole. Travel in urban areas

Table 10

SELECTED PUBLIC USE PARKS AND RECREATIONAL AREAS IN THE WEST BEND STUDY AREA: 1990[a]

Site Name	Acreage	Location
Barton Park	6	City of West Bend
Decorah Hills Park	11	City of West Bend
Kenny Park	9	City of West Bend
Lizard Mound Park	32	Town of Farmington
Regner Park	88	City of West Bend
Ridge Run Park	133	Town of West Bend
Riverside Park	100	City of West Bend
Sandy Knoll Park	263	Town of Trenton
Sunset Park	15	City of West Bend
Wingate Park	7	City of West Bend
Ziegler Park	15	City of West Bend
Bicentennial Park	29	City of West Bend
Villa Park	15	City of West Bend

[a]*Defined as multiple-use recreation sites which are community-oriented in service area, open to the general public, and contain community recreation facilities such as baseball or softball diamonds, swimming pools, or tennis courts.*

Source: SEWRPC.

Table 11

POPULATION IN THE WEST BEND STUDY AREA: 1960-1990

Area	Population				
	1960	1970	1980	1985	Preliminary 1990[a]
City of West Bend	9,969	16,555	21,484	21,993	24,591
Total Study Area	14,500	22,378	30,057	30,939	33,900

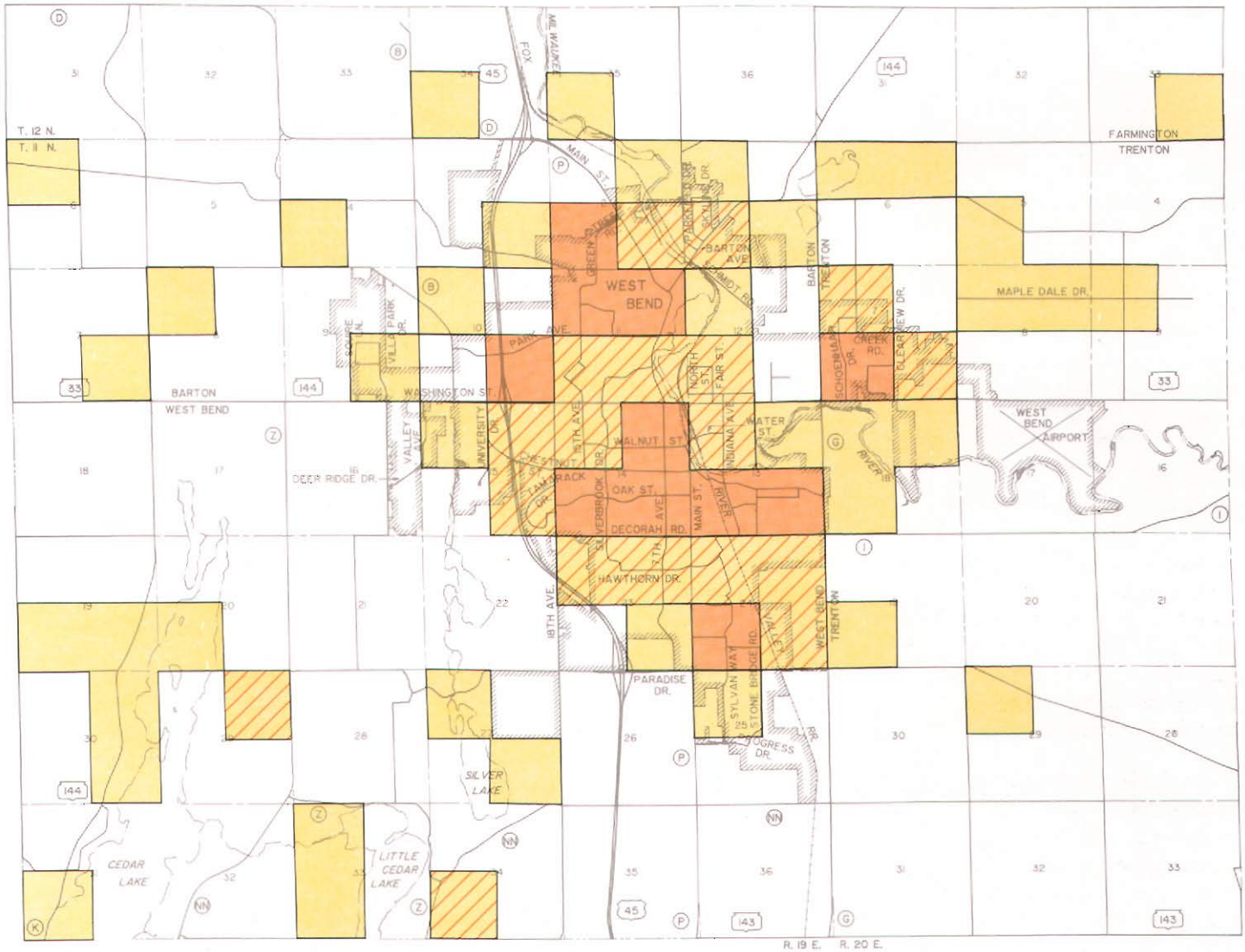
Area	Change in Population							
	1960-1970		1970-1980		1980-1985		1985-1990	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
City of West Bend	6,586	66.1	4,929	29.8	509	2.4	2,598	11.8
Total Study Area	7,878[a]	54.3	7,679	34.3	882	2.9	2,961	9.6

[a]*Estimated.*

Source: U. S. Bureau of the Census, Wisconsin Department of Administration, and SEWRPC.

Map 7

POPULATION DENSITIES IN PERSONS PER SQUARE MILE WITHIN THE WEST BEND STUDY AREA: 1985



LEGEND

PERSONS PER SQUARE MILE

- LESS THAN 300
- 300 - 999
- 1,000 - 3,399
- 3,400 - 9,199

Source: SEWRPC.

Table 12

NUMBER OF HOUSEHOLDS IN THE WEST BEND STUDY AREA: 1960-1990

Area	Total Households				
	1960	1970	1980	1985	Preliminary 1990[a]
City of West Bend	2,926	4,807	7,293	7,473	9,149
Total Study Area	4,100[a]	6,335	9,728	10,221	12,400

Area	Change in Total Households							
	1960-1970		1970-1980		1980-1985		1985-1990	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
City of West Bend	1,881	64.3	2,468	51.7	180	2.5	1,676	22.4
Total Study Area	2,235	54.5	3,393	53.6	493	5.1	2,179	21.3

[a]*Estimated.*

Source: U. S. Bureau of the Census, Wisconsin Department of Administration, and SEWRPC.

is more strongly related to the number of households than to the size of the population. The number of households is a better indicator of the size of the labor force and, hence, of the amount of work-related travel, as well as other travel, including that for shopping and personal business purposes.

Transit-Dependent Population Characteristics

Generally, there are certain segments of the population whose dependence on, and use of, transit services are greater than that of the population as a whole. These segments of the population historically have had less access to the automobile as a form of travel than the population in general and therefore have had to rely more heavily on alternative transportation modes for mobility. These groups include school-age children, the elderly, low income families, minorities, and the disabled. One source which was used to obtain information about these groups was the 1980 U. S. Census. The only data which was available from the 1990 U. S. Census were population counts for each municipality. Selected population characteristics for the census tracts in the City of West Bend are set forth in Tables 13 and 14.

The census tracts which display concentrations of those population groups that depend most heavily on transit service were analyzed and identified as high priority areas for transit service. The high priority areas in the City of West Bend are Census Tracts No. 4201.01, 4203, and 4204, shown on Map 8. The categories considered in these analyses were concentrations of school-age children, elderly, low income households, households with no automobiles available, and minorities, both nonwhite and Hispanic. The census tracts defined as high priority had above average concentrations in three or more categories.

While no data from the 1990 U. S. Census on the location of concentrations of transit-dependent population groups in the City of West Bend are as yet available, some estimates of the total number of persons in three of these groups, the elderly, the disabled, and school-age children, can be made for 1990.

With respect to the elderly, it is estimated that 3,000 of the 24,600 city residents in 1990, or about 12 percent, were elderly, that is, persons aged 65 and older. This represents an increase of about 30 percent over the 2,300 elderly persons in the City of West Bend enumerated in the 1980 U. S. Census. This estimate is based upon the projected increase countywide over 1980 in persons 65 years of age and older made by the Commission under its 1990 intermediate population projection. The Commission's intermediate 1990 projection of total population in Washington County was about 97,500 persons, which

Table 13

SELECTED CHARACTERISTICS OF THE CITY OF WEST BEND RESIDENT POPULATION BY CENSUS TRACT: 1980

Census Tract Number	Population	School-Age Children[a]		Elderly[b]		Low Income[c]		Minority			
								Nonwhite		Hispanic	
		Number	Percent of Tract Population	Number	Percent of Tract Population	Number	Percent of Tract Population	Number	Percent of Tract Population	Number	Percent of Tract Population
4001.01[d]	201	15	7.5	10	5.0	11	5.5	4	2.0	5	2.5
4001.02[d]	1,542	211	13.7	34	2.2	25	1.6	4	0.3	6	0.4
4201.01[d]	560	101	18.0	41	7.3	39	7.0	1	0.2	1	0.2
4201.02[d]	5,629	949	16.9	413	7.3	278	4.9	34	0.6	63	1.1
4202[d]	4,542	817	18.0	599	13.2	104	2.3	34	0.7	14	0.3
4203[d]	5,471	941	17.2	703	12.8	312	5.7	20	0.4	39	0.7
4204	3,539	543	15.3	492	13.9	288	8.1	37	1.0	37	1.0
Total	21,484	3,577	16.6	2,292	10.7	1,057	4.9	134	0.6	165	0.8

Size of Family Unit	Related Children Under 18 Years									
	Poverty Threshold	None	1	2	3	4	5	6	7	8 or More
One Person (unrelated individual)	$ 3,686	--	--	--	--	--	--	--	--	--
Under 65 Years	3,774	$ 3,774	--	--	--	--	--	--	--	--
65 Years and Older	3,479	3,479	--	--	--	--	--	--	--	--
Two Persons	4,723	--	--	--	--	--	--	--	--	--
Householder										
Under 65 Years	4,876	4,858	$ 5,000	--	--	--	--	--	--	--
65 Years and Older	4,389	4,385	4,981	--	--	--	--	--	--	--
Three Persons	5,787	5,674	5,839	$ 5,844	--	--	--	--	--	--
Four Persons	7,412	7,482	7,605	7,356	$ 7,382	--	--	--	--	--
Five Persons	8,776	9,023	9,154	8,874	8,657	$ 8,525	--	--	--	--
Six Persons	9,915	10,378	10,419	10,205	9,999	9,693	$ 9,512	--	--	--
Seven Persons	11,237	11,941	12,016	11,759	11,580	11,246	10,857	$10,429	--	--
Eight Persons	12,484	13,356	13,473	13,231	13,018	12,717	12,334	12,936	$11,835	--
Nine Persons or More	14,812	16,066	16,144	15,929	15,749	15,453	15,046	14,677	14,586	$14,024

[a] *Ages 10 through 18 inclusive.*

[b] *Ages 65 and older.*

[c] *Family income below poverty threshold, as defined by the U. S. Bureau of the Census for families in 1979 .*

[d] *Data presented for only that portion of the census tract within the City of West Bend.*

Source: U. S. Bureau of the Census and SEWRPC.

Table 14

DISTRIBUTION BY CENSUS TRACT OF HOUSEHOLDS WITHIN THE CITY OF WEST BEND WITH NO OR ONE VEHICLE AVAILABLE: 1980

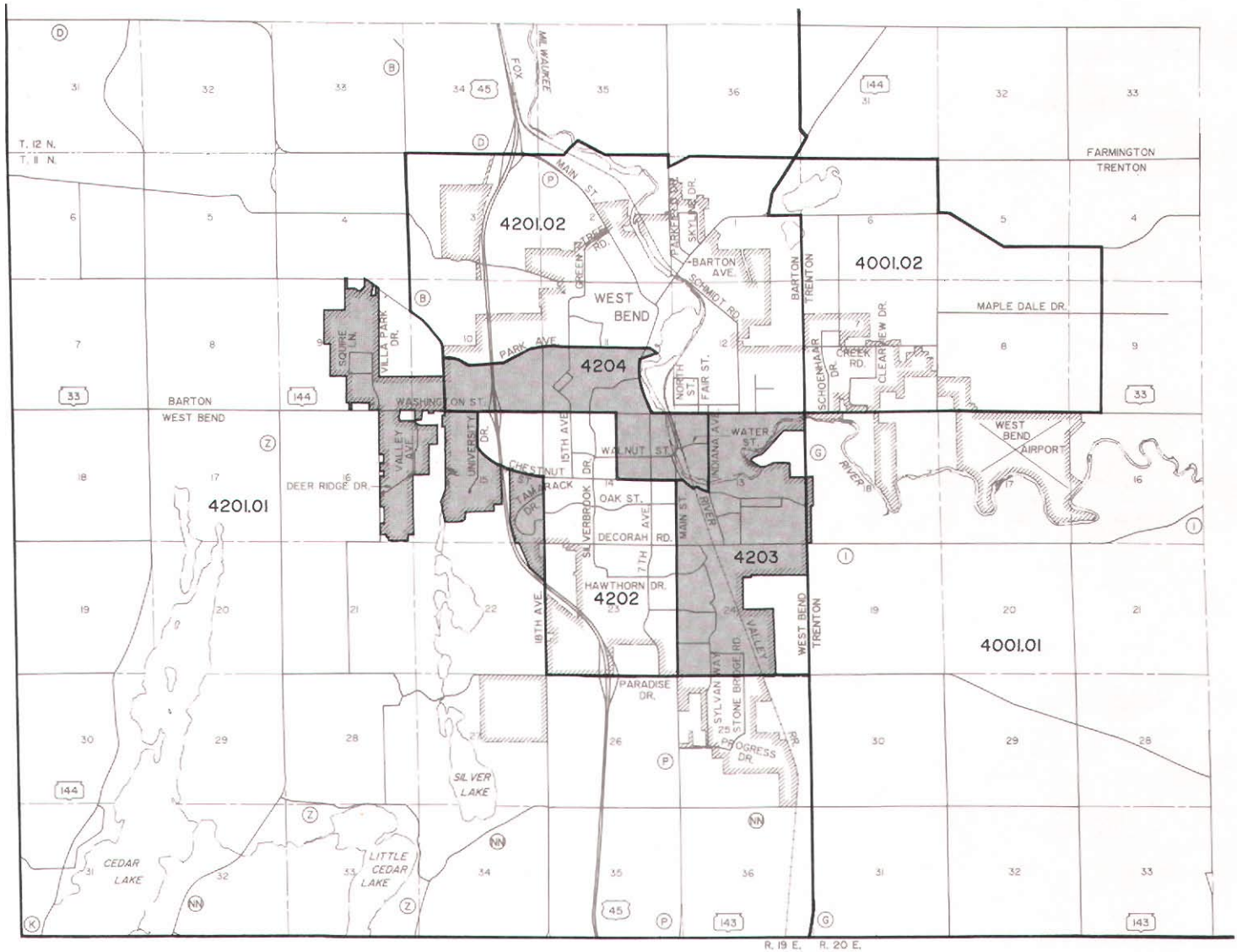
Census Tract Number	Total Households	Households with No Vehicle Available		Households with One Vehicle Available		Households with No or One Vehicle Available	
		Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
4001.01[a]	77	6	7.8	26	33.8	32	41.6
4001.02[a]	422	5	1.2	119	28.2	124	29.4
4201.01[a]	202	16	7.9	67	33.2	83	41.1
4201.02[a]	1,804	84	4.7	733	40.6	817	45.3
4202[a]	1,558	92	5.9	519	33.3	611	39.2
4203[a]	1,822	111	6.1	804	44.1	915	50.2
4204	1,408	215	15.3	553	39.3	768	54.5
Total	7,293	529	7.2	2,821	38.7	3,350	45.9

[a] *Data presented for only that portion of the census tract within the City of West Bend.*

Source: U. S. Bureau of the Census and SEWRPC.

Map 8

AREAS WITH HIGH PRIORITY FOR TRANSIT SERVICE IN THE WEST BEND STUDY AREA: 1980



LEGEND

CENSUS TRACT BOUNDARY

4202 CENSUS TRACT NUMBER

CENSUS TRACT AREAS WITHIN THE CITY OF WEST BEND CONTAINING ABOVE AVERAGE CONCENTRATIONS IN 3 OR MORE CATEGORIES OF TRANSIT DEPENDENT PERSONS

Source: SEWRPC.

Table 15

FACILITIES FOR THE ELDERLY IN THE WEST BEND STUDY AREA: 1990

Facility	Address[a]
Residential/Retirement/Housing Complexes[b]	
Cedar Ridge Retirement Campus	101-125 Cedar Ridge Drive
The Embassy	125 University Drive
Meadowbrook Manor	475 Meadowbrook Drive
Park Place Condominiums	530 N. Silverbrook Drive
Royal Oaks Manor	Schmidt Road
University Apartments	230 University Drive
Community-Based Residential Facilities	
Hawthorn Manor	321 Hawthorn Drive
Hawthorn Manor II	346 S. Main Street
Mapledale Manor	1731 Mapledale Drive, Town of Trenton
Touchstone on Summit	750 Summit Drive
Tri-Manor, Ltd.	1937 N. Main Street
Nursing Homes/Care Centers	
Cedar Lake Home	Town of West Bend
Samaritan Home	531 E. Washington Street
Senior Centers	
Fifth Avenue United Methodist Church	323 S. 5th Avenue
St. Frances Cabrini Church	1025 S. 7th Avenue
Washington County Senior Center[c]	401 E. Washington Street

[a] *Unless noted, all addresses are in the City of West Bend.*

[b] *Includes subsidized and nonsubsidized housing and locations that have a significant number of elderly, but may not be limited to elderly housing.*

[c] *Also serves as a nutrition site.*

Source: Washington County Office on Aging and SEWRPC.

compares favorably with the preliminary figure of 95,500 persons from the 1990 U. S. Census for Washington County.

With respect to the disabled, estimates of the total number of transportation disabled persons within each county in the State are prepared each year by the Wisconsin Department of Transportation, Bureau of Transit, for use in distributing funds under its specialized transportation assistance program for counties. These estimates are based upon rates of acute and chronic medical conditions among the general public and on the number of persons residing in certain institutional or group quarters. For 1989 it was estimated that 3,700 persons within Washington County, representing about 4 percent of the total county population, were transportation disabled individuals. Based upon the proportion of total county residents estimated to be transportation disabled, it is estimated that 1,000 persons within the City of West Bend were transportation disabled in 1990.

With respect to school-age children, there are almost 6,500 children enrolled in the West Bend School District in grades kindergarten through high school. Of this total, it was estimated that 2,100, or 32 percent, attended middle or high schools and resided within the City of West Bend.

The locations of places frequently used by the elderly for care and recreation purposes, of retirement homes, of housing complexes for the elderly, and of nutrition sites were also identified in the study area for the year 1990. These facilities for the elderly are listed in Table 15.

Table 16

FACILITIES FOR THE DISABLED IN THE WEST BEND STUDY AREA: 1990

Facility	Address[a]
Residential Housing/Care Facilities[b]	
Adams Street Group Home	1211 Adams Street
Bridgewood	911 Cedar Street
Hans Street Group Home	1716 Hans Street
Samaritan Home	531 E. Washington Street
Tri-Manor, Ltd.	1937 N. Main Street
Washington Street Group Home	125 E. Washington Street
17th Avenue Group Home	233 S. 17th Avenue
Proposed Unnamed Facility[c]	905 E. Washington Street
Education/Rehabilitation/Training/Referral	
Cedar Haven Rehabilitation Agency	Town of West Bend
Comprehensive Community Services Agency of Washington County	515 E. Washington Street
Lutheran Social Services	1500 S. Main Street
Moraine Park Technical College	2151 N. Main Street
The Threshold, Inc.	600 N. Rolfs Road

[a]*Unless otherwise noted, all addresses are in the City of West Bend.*

[b]*Includes community-based residential facilities.*

[c]*Approved, but construction not yet begun.*

Source: Comprehensive Community Services Agency of Washington County and SEWRPC.

Places frequently used by disabled individuals for housing or residential care, rehabilitation, sheltered employment, or educational purposes were also identified and are listed in Table 16.

Employment Characteristics

The estimated 1990 employment in the study area was approximately 17,200 jobs. About 15,000 jobs, or 87 percent of the study area total, were located in the City of West Bend. As shown in Table 17, employment in the study area and in the City of West Bend increased significantly between 1972 and 1980. From 1980 to 1985, employment decreased slightly. The nationwide recession, which began in about 1979 and from which local recovery did not begin until 1983, accounts for the decrease in employment during this period. This recession severely affected the State of Wisconsin and, particularly, southeastern Wisconsin. From 1985 to 1990, employment once again showed a significant increase.

The density of employment in the study area in 1985, measured in terms of jobs per square mile, is shown in Map 9 by quarter-section. Within the study area the major concentrations of employment in 1985 were located in those quarter-sections which contained one major employer or more, including the West Bend central business district, major governmental and institutional centers, and concentrations of retail and service employers, such as along S. Main Street in the vicinity of Paradise Drive.

Forecast Population and Employment Levels

Population and employment forecasts for the West Bend study area were prepared for the year 2010 as part of a land use plan currently being prepared for the City of West Bend by the Commission.[1] These forecasts are shown in Table 18. Forecasts were prepared under two

[1]*See SEWRPC Community Assistance Planning Report No. 167, A Land Use Plan for the City of West Bend: 2010.*

Table 17

TOTAL EMPLOYMENT IN THE WEST BEND STUDY AREA: 1972-1990

Area	Total Employment			
	1972	1980	1985	1990[a]
City of West Bend[b]	10,456	12,722	12,462	15,000
Total Study Area	11,212	14,441	14,373	17,200

Area	Change in Total Employment					
	1972-1980		1980-1985		1985-1990	
	Number	Percent	Number	Percent	Number	Percent
City of West Bend[b]	2,266	21.7	-260	-2.0	2,538	20.4
Total Study Area	3,229	28.8	-68	-0.5	2,827	19.7

[a]*Estimated.*

[b]*City of West Bend data approximated using whole U. S. Public Land Survey one-quarter sections.*

Source: U. S. Bureau of the Census, Wisconsin Department of Administration, and SEWRPC.

alternative future scenarios, an intermediate alternative future scenario and an optimistic alternative future scenario, for both the West Bend study area, which is identical to the study area being used in the West Bend transit study, and for the City of West Bend urban service area. The urban service area includes an area somewhat larger than the existing 1990 corporate boundary of the City of West Bend to represent the extent of the urban area boundaries as they may be envisioned to exist in 2010 because of a larger population and employment base.

As shown in Table 18, the forecast year 2010 population is about 32,000 persons in the City and about 39,400 persons in the study area under an intermediate future scenario. The forecast year 2010 population under an optimistic future scenario is about 52,900 persons in the City and about 61,100 persons in the study area. With respect to employment, the forecast year 2010 number of jobs is about 18,600 jobs in the City and about 19,700 jobs in the study area under an intermediate future scenario. Under an optimis-

Table 18

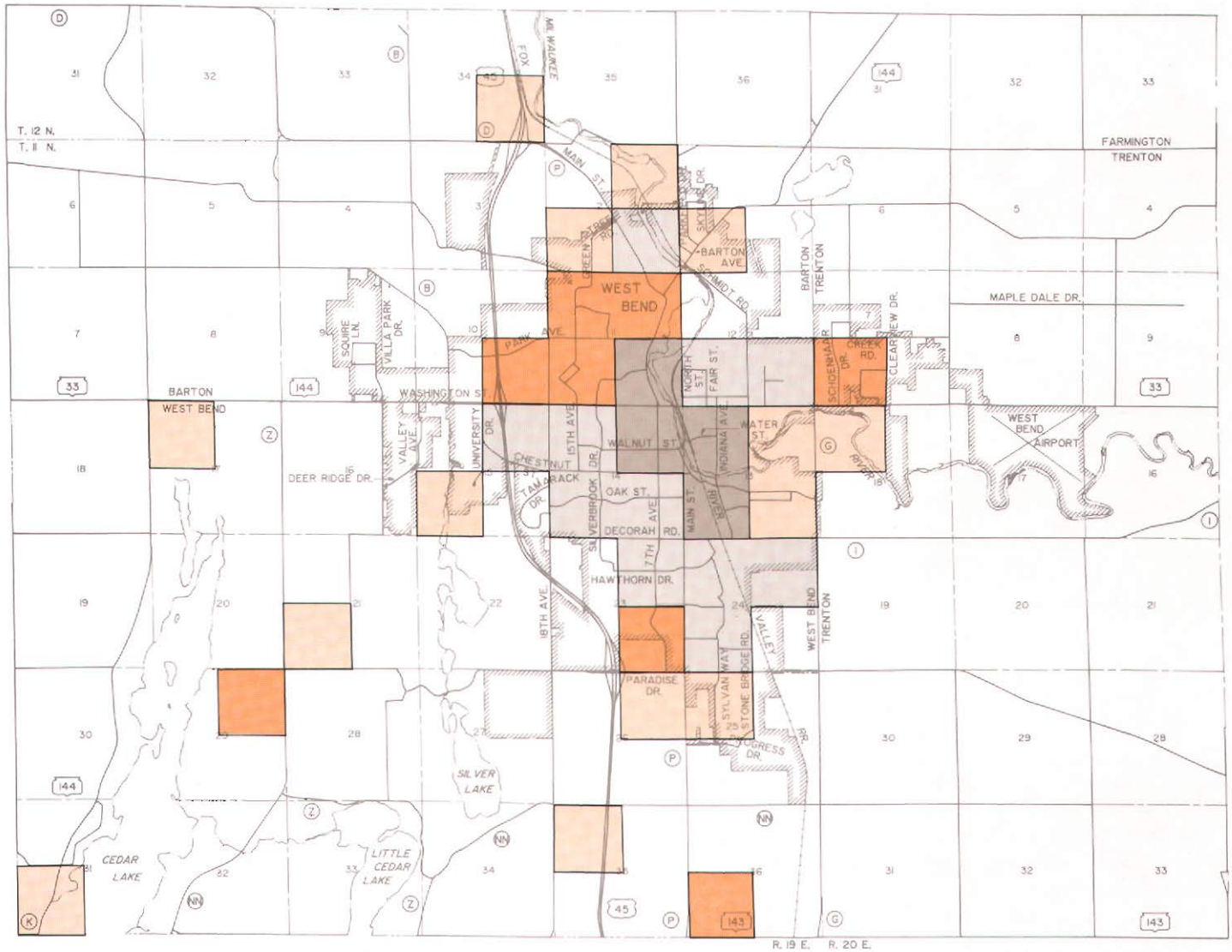
POPULATION AND EMPLOYMENT FORECASTS FOR THE CITY OF WEST BEND AND THE WEST BEND STUDY AREA: 2010

Alternative Future Scenario	City of West Bend	West Bend Study Area
1990 Estimated		
Population	24,591	33,900
Jobs	15,000	17,200
Intermediate Future		
Population	32,050	39,360
Jobs	18,550	19,730
Optimistic Future		
Population	52,880	61,110
Jobs	23,210	24,770

Source: U. S. Bureau of the Census; Wisconsin Department of Industry, Labor and Human Relations; Wisconsin Department of Administration; and SEWRPC.

Map 9

EMPLOYMENT DENSITIES IN JOBS PER SQUARE MILE IN THE WEST BEND STUDY AREA: 1985



LEGEND

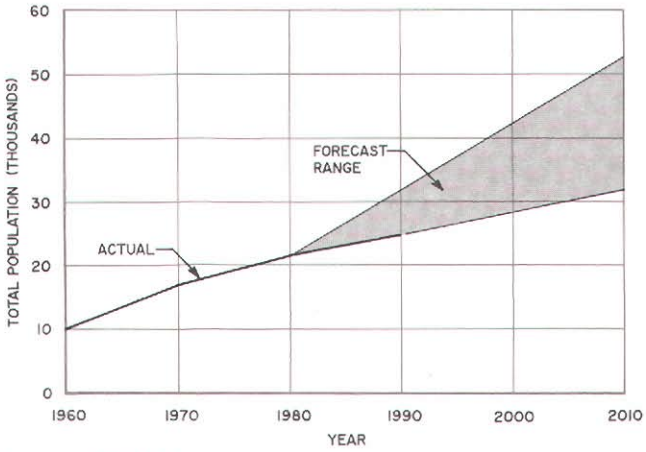
JOBS PER SQUARE MILE

- LESS THAN 100
- 100 - 399
- 400 - 999
- 1,000 - 3,999
- 4,000 - 19,999

Source: SEWRPC.

Figure 1

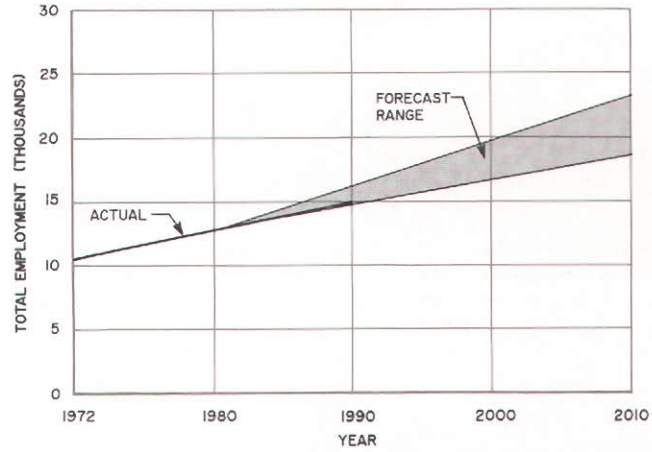
HISTORIC AND FORECAST FUTURE POPULATION LEVELS FOR THE CITY OF WEST BEND: 2010



Source: SEWRPC.

Figure 2

HISTORIC AND FORECAST FUTURE EMPLOYMENT LEVELS FOR THE CITY OF WEST BEND: 2010



Source: SEWRPC.

tic future scenario, the forecast year 2010 number of jobs is 23,200 jobs in the City and 24,800 jobs in the study area. Figures 1 and 2 provide graphic summaries of the forecasts. Based upon these figures, projections of the population for the City of West Bend in 1995 would range from 27,000 to 37,000 persons under the intermediate and optimistic scenarios, respectively. Projections of employment for the City of West Bend in 1995 would range from 15,500 to 18,000 jobs under the intermediate and optimistic futures, respectively.

TRAVEL HABITS AND PATTERNS

This section of the chapter presents information on habits and patterns of travel of area residents which are relevant to the provision and use of transit services. The first part of this section is an estimate of the amount and pattern of the total travel generated by households, employment, and other land use activities which are entirely within the study area. The second part of this section provides an estimate of the amount and pattern of travel generated between the study area and the remainder of southeastern Wisconsin.

Total Person Travel Characteristics

Based upon Commission travel simulation model applications, it is estimated that 106,900 trips with one or both ends in the West Bend transit plan study area occurred on an average weekday in 1990. The generalized pattern of those trips, including origin and destination, is presented in Table 19. The distribution of this travel by trip purpose is summarized in Table 20. These tabulations include trips in both directions on an average weekday, that is, both to and from the City of West Bend and the study area.

Internal Person Travel: Of the 106,900 person trips estimated to have occurred in the study area on an average weekday in 1990, approximately 68,500 trips, or 64 percent, were made completely within the study area. Of the 68,500 trips that were entirely within the study area, about 51,700, or three-quarters of those trips, were entirely within the City of West Bend. About 12,800 trips, or almost 20 percent of the 68,500 trips made entirely in the study area, have one end of the trip in the City and the other end in the outlying areas of the study area. The remaining 5 percent, or 4,000 trips, had both ends of the trip in the outlying portions of the study area.

To facilitate further analysis of internal person trip characteristics, the density of tripmaking was calculated for each of the traffic analysis zones within the study area. Map 10 illustrates the total person trip density within each zone, expressed in total trip origins and destinations, or total trip ends, per square mile. As might be expected, the map shows that person tripmaking activity within the study area in 1990 was heavily concentrated in the densely developed urban areas, mostly within the City of West

Table 19

DISTRIBUTION OF INTERNAL AND EXTERNAL TOTAL PERSON TRIPS FOR THE WEST BEND STUDY AREA ON AN AVERAGE WEEKDAY: 1990 (ESTIMATED)

	Trip Type	County	Zone Number	Analysis Area Description	Total Person Trips on an Average Weekday		
					City of West Bend	Surrounding Communities	Total Study Area
Internal	Both origin and destination within study area	Washington	1	City of West Bend	51,680	--	51,680
			2	Surrounding communities	12,820	3,990	16,810
External	Either origin or destination within study area[a]	Washington	3	Wayne/Addison	2,940	1,810	4,750
			4	Kewaskum	3,010	950	3,960
			5	Farmington	1,290	480	1,770
			6	Newburg	1,320	660	1,980
			7	Hartford	1,090	800	1,890
			8	Slinger	1,250	1,380	2,630
			9	Jackson	3,560	1,420	4,980
			10	Erin/Richfield	660	320	980
			11	Germantown	980	350	1,330
		Ozaukee	12	Fredonia/Belgium	960	400	1,360
			13	Saukville	970	290	1,260
			14	Port Washington	570	220	790
			15	Cedarburg/Grafton	1,990	730	2,720
			16	Mequon/Thiensville	470	200	670
		Waukesha	17	Menomonee Falls	910	380	1,290
			18	East-central Waukesha County	580	280	860
			19	Western and southern Waukesha County	540	200	740
		Milwaukee	20	Northern Milwaukee County	890	440	1,330
			21	Central Milwaukee County	2,060	690	2,750
			22	Southern Milwaukee County	40	10	50
			23	Milwaukee Central Business District	180	50	230
		Walworth	24	All of Walworth County	5	5	10
		Racine	25	All of Racine County	20	10	30
		Kenosha	26	All of Kenosha County	10	5	15
Total	--	--	--	--	90,795	16,070	106,865

[a]*Does not include trips between study area and areas outside southeastern Wisconsin. It is estimated that an additional 7,200 person trips were made on an average weekday in 1990 between the study area and Dodge, Fond du Lac, and Sheboygan Counties outside the Region.*

Source: SEWRPC.

Bend. The zones constituting the West Bend central business district and the area surrounding the the Paradise Mall Shopping Center contained the highest concentrations of trip ends.

External Person Travel: Of the 106,900 trips estimated to have occurred within the study area on an average weekday in 1990, about 38,400 trips, or 36 percent, had one end of their trip within areas in the Southeastern Wisconsin Region outside the study area. The locations of these external person trip destinations in the Southeastern Wisconsin Region are shown on Map 11. As indicated on this map, the largest concentrations of total external person trip destinations were located throughout the remainder of Washington County, outside the study area. Such concentrations of trip ends included the areas in and around Hartford, Jackson, Kewaskum, and Slinger. Together, these trips between the study area and other locations in Washington County accounted for

Table 20

DISTRIBUTION OF TOTAL PERSON TRIPS FOR THE WEST BEND STUDY AREA BY TRIP PURPOSE ON AN AVERAGE WEEKDAY: 1990 (ESTIMATED)

Trip Purpose[a]	Internal		External		Total	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Home-Based Work	16,400	23.9	13,500	35.1	29,900	28.0
Home-Based Shopping	11,100	16.2	3,800	9.9	14,900	13.9
Home-Based Other	22,900	33.5	12,600	32.8	35,500	33.2
Nonhome-Based	15,000	21.9	6,900	18.0	21,900	20.5
School-Based	3,100	4.5	1,600	4.2	4,700	4.4
Total	68,500	100.0	38,400	100.0	106,900	100.0

[a]*The trip data were grouped into five categories of travel purpose: home-based work, home-based shopping, home-based other, nonhome-based, and school-based trips. Home-based work trips are defined as trips having one end at the place of residence of the tripmaker and the other end at the place of work. Home-based shopping trips are defined as trips having one end at the place of residence of the tripmaker and the other at a shopping destination. Home-based other trips are defined as trips having one end at the place of residence of the tripmaker and the other end at a place of destination other than home, work, shopping area, or school. Such trips would include trips made for social, recreational, medical, and personal business purposes. Nonhome-based trips are defined as trips that neither originate nor end at home. School-based trips are defined as trips having at least one end at school.*

Source: SEWRPC.

about 24,300 trips. Trips to and from Ozaukee County attracted about 6,800 trips, trips to and from Milwaukee County attracted about 4,400 trips, and trips to and from Waukesha County attracted about 2,900 trips. Most of the Ozaukee County trips were oriented to the Cedarburg and Grafton area, most of the Waukesha County trips were oriented to the Menomonee Falls area, and most of the Milwaukee County trips were oriented toward the central portion of the County.

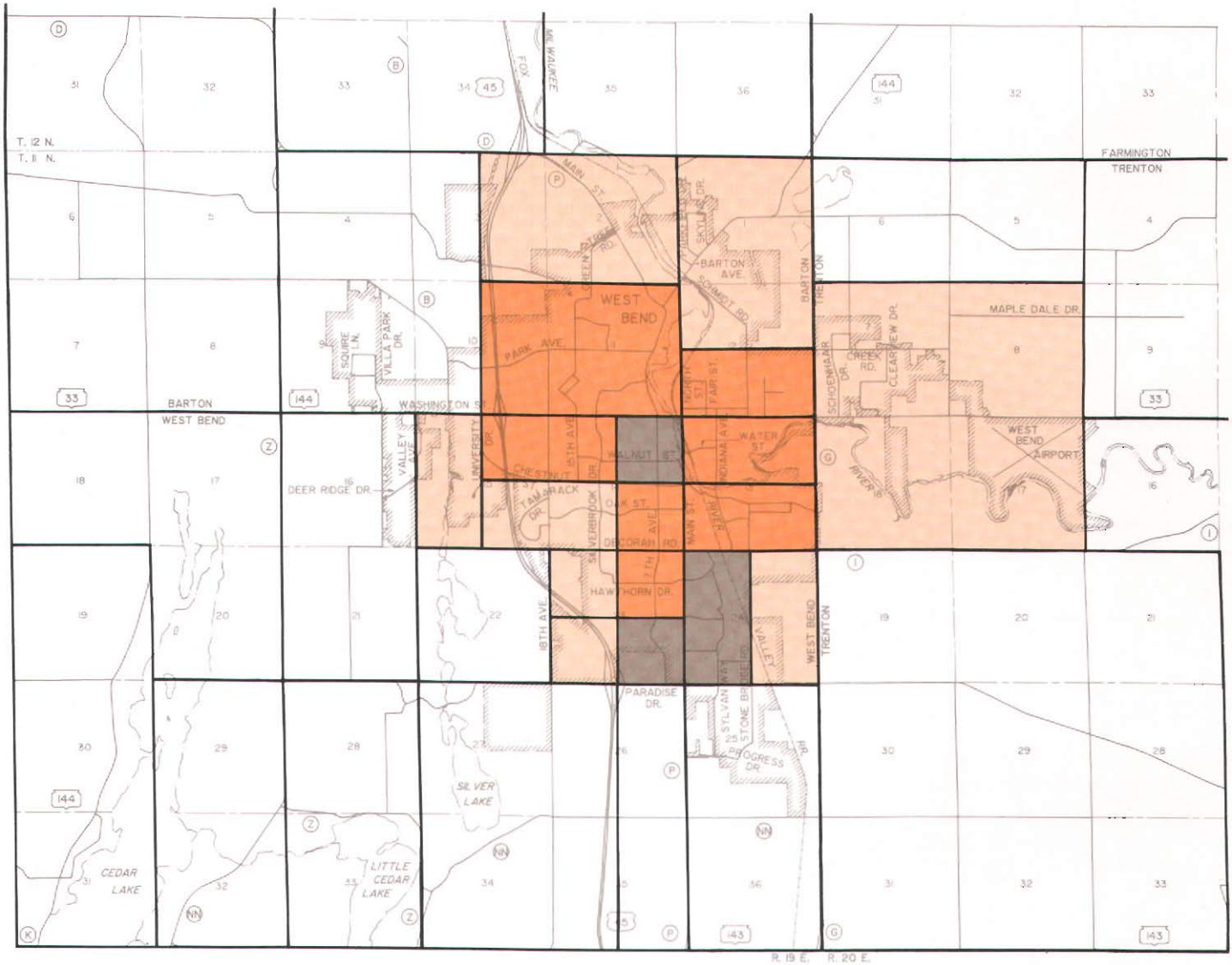
The preceding discussion has described the travel patterns of the approximately 106,900 person trips occurring on an average weekday both within the West Bend transit study area and also with destinations in areas elsewhere inside the seven-county Southeastern Wisconsin Region. It should be noted that an additional 7,200 person trips were estimated to have been made between the study area and selected surrounding counties outside the Region. The most significant amount of such total person travel in 1990 occurred between the study area and Fond du Lac County, with an estimated 3,800 person trips occurring on an average weekday. It was also estimated that 1,700 trips were made on an average weekday between the study area and Dodge County, another 1,700 trips were made on an average weekday between the study area and Sheboygan County. Travel between the study area and any other counties or states outside southeastern Wisconsin was found to be numerically negligible.

SUMMARY

This chapter has presented pertinent information on those factors which affect, or are affected by, the potential provision and use of transit service in and around the City of West Bend. Such information includes land use patterns, the size and distribution of population and employment, major traffic generators, forecast population and employment levels, and the travel habits and patterns of the resident population. These factors must be considered in any transit planning effort.

Map 10

TOTAL PERSON TRIP DENSITY IN THE WEST BEND STUDY AREA: 1990 (ESTIMATED)



LEGEND

TRAFFIC ANALYSIS ZONE BOUNDARY

TRIP ORIGINS AND DESTINATIONS PER SQUARE MILE

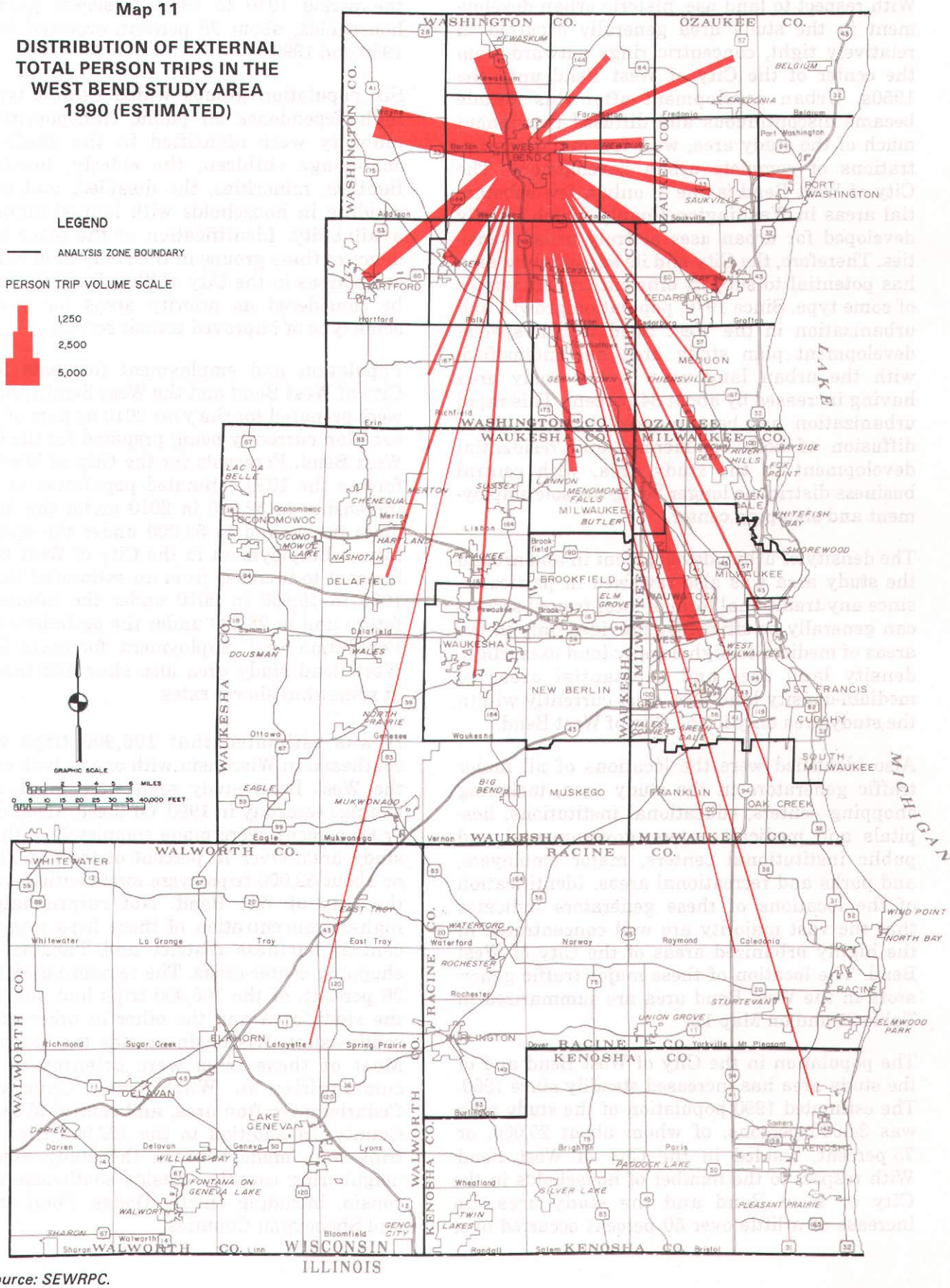
- FEWER THAN 2,500
- 2,500 TO 9,999
- 10,000 TO 24,999
- 25,000 OR MORE

GRAPHIC SCALE

Source: SEWRPC.

Map 11

DISTRIBUTION OF EXTERNAL TOTAL PERSON TRIPS IN THE WEST BEND STUDY AREA 1990 (ESTIMATED)



Source: SEWRPC.

With respect to land use, historic urban development in the study area generally occurred in relatively tight, concentric rings outward from the center of the City of West Bend until the 1950s. Urban development after this decade became discontinuous and diffused throughout much of the study area, with few major concentrations of complete urban development. The City of West Bend is one of only a few substantial areas in Washington County which is fully developed for urban uses at truly urban densities. Therefore, the City and its surrounding area has potential to support efficient transit service of some type. Since 1970, population growth and urbanization in the West Bend transit system development plan study area has intensified, with the urban land uses in the study area having increased by about 34 percent. This rapid urbanization has been marked, however, by a diffusion of both commercial and residential development in the study area, with central business district no longer being the sole employment and shopping center.

The density of urban development in and around the study area was also reviewed in particular, since any traditional form of local transit service can generally be efficiently provided only in the areas of medium to high density land uses. High-density land uses and substantial areas of medium-density land uses exist currently within the study area only in the City of West Bend.

Also identified were the locations of all major traffic generators in the study area, including shopping centers, educational institutions, hospitals and medical centers, governmental and public institutional centers, major employers, and parks and recreational areas. Identification of the locations of these generators indicates that the vast majority are well concentrated in the highly urbanized areas of the City of West Bend. The location of these major traffic generators in the West Bend area are summarized in Table 21 and on Map 12.

The population in the City of West Bend and of the study area has increased steadily since 1960. The estimated 1990 population of the study area was 34,000 persons, of whom about 25,000, or 73 percent, resided in the City of West Bend. With respect to the number of households in the City of West Bend and the study area, an increase of a little over 50 percent occurred over the period 1970 to 1980. A slower growth in households, about 25 percent, occurred between 1980 and 1990.

Six population groups which exhibit typically high dependence on public transportation for mobility were identified in the study area: school-age children, the elderly, low-income families, minorities, the disabled, and persons residing in households with limited automobile availability. Identification of the place of residence of these groups in the study area indicated some areas in the City of West Bend that should be considered as priority areas for providing some type of improved transit service.

Population and employment forecasts for the City of West Bend and the West Bend study area were prepared for the year 2010 as part of a land use plan currently being prepared for the City of West Bend. Forecasts for the City of West Bend foresee the 1990 estimated population of 24,600 increasing to 32,000 in 2010 under the intermediate future and to 52,900 under the optimistic future. Employment in the City of West Bend is forecast to increase from an estimated 15,000 in 1990 to 18,600 in 2010 under the intermediate future and to 23,200 under the optimistic future. Population and employment forecasts for the West Bend study area also show increases, but at somewhat slower rates.

It was estimated that 106,900 trips within southeastern Wisconsin with one or both ends in the West Bend study area were made on an average weekday in 1990. Of these, about 68,500, or 64 percent, were made completely within the study area. Over 75 percent of the 68,500 trips, or about 52,000 trips, were made entirely within the City of Wet Bend. Not surprisingly, the highest concentration of these trips was in the central business district and Paradise Mall shopping center areas. The remaining 38,400, or 36 percent, of the 106,900 trips had one end in the study area and the other in other parts of southeastern Wisconsin outside the study area. Most of these trips were oriented to other communities in Washington County, the Cedarburg-Grafton area, and central Milwaukee County. In addition to the 106,900 trips, 7,200 trips were made between the study area and neighboring counties outside southeastern Wisconsin, including chiefly Dodge, Fond du Lac, and Sheboygan Counties.

Table 21

MAJOR TRAFFIC GENERATORS IN THE WEST BEND STUDY AREA: 1990

Code Number on Map 12	Name[a]	Type of Major Traffic Generator						
		Shopping Centers	Educational Institutions	Hospitals and Medical Centers	Governmental and Public Institutional Centers	Major Industrial/ Commercial Employers	Parks and Recreational Areas	Facilities for the Elderly and Disabled
1	Adams Street Group Home	--	--	--	--	--	--	X
2	Amity Leather Products Company	--	--	--	--	X	--	--
3	Badger Middle School	--	X	--	--	--	--	--
4	Barton Business District	X	--	--	--	--	--	--
5	Barton Elementary School	--	X	--	--	--	--	--
6	Barton Park	--	--	--	--	--	X	--
7	Bicentennial Park	--	--	--	--	--	X	--
8	Bridgewood	--	--	--	--	--	--	X
9	B. C. Ziegler & Company	--	--	--	--	X	--	--
10	Calvary Assembly of God School	--	X	--	--	--	--	--
11	Cedar Haven Rehabilitation Agency[b]	--	--	--	--	--	--	X
12	Cedar Lake Home[b]	--	--	--	--	X	--	X
13	Cedar Lake Retirement Campus	--	--	--	--	--	--	X
14	Comprehensive Community Services Agency of Washington County	--	--	--	X	--	--	X
15	Decorah Elementary School	--	X	--	--	--	--	--
16	Decorah Hills Park	--	--	--	--	--	X	--
17	Decorah Shopping Center	X	--	--	--	--	--	--
18	Downtown Business District	X	--	--	--	--	--	--
19	The Embassy	--	--	--	--	--	--	X
20	Enger-Kress Company	--	--	--	--	X	--	--
21	Fair Park Elementary School	--	X	--	--	--	--	--
22	Fifth Avenue United Methodist Church	--	--	--	--	--	--	X
23	Gehl Company	--	--	--	--	X	--	--
24	General Clinic of West Bend, Inc.	--	--	X	--	X	--	--
25	Good Shepherd Wisconsin Synod Lutheran School	--	X	--	--	--	--	--
26	Green Tree Elementary School	--	X	--	--	--	--	--
27	Hans Street Group Home	--	--	--	--	--	--	X
28	Hawthorn Manor	--	--	--	--	--	--	X
29	Hawthorn Manor II	--	--	--	--	--	--	X
30	Holy Angels Parish School	--	X	--	--	--	--	--
31	Kenny Park	--	--	--	--	--	X	--
32	Lizard Mound Park[c]	--	--	--	--	--	X	--
33	Lutheran Social Services	--	--	--	--	--	--	X
34	M & I First National Bank	--	--	--	--	X	--	--
35	South Main Street strip development	X	--	--	--	--	--	--
36	Mapledale Manor[d]	--	--	--	--	--	--	X
37	McLane Elementary School	--	X	--	--	--	--	--
38	Meadowbrook Manor	--	--	--	--	--	--	X
39	Moraine Park Technical College	--	X	--	--	--	--	X
40	Old General Clinic Office Building	--	--	--	X	--	--	--
41	Paradise Mall	X	--	--	--	X	--	--
42	Park Place Condominiums	--	--	--	--	--	--	X
43	Pick-N-Save (north)	--	--	--	--	X	--	--
44	Pick-N-Save (south)	--	--	--	--	X	--	--
45	Proposed facility for the disabled	--	--	--	--	--	--	X
46	Regner Park	--	--	--	--	--	X	--
47	Ridge Run Park[b]	--	--	--	--	--	X	--
48	Riverside Park	--	--	--	--	--	X	--
49	Royal Oaks Manor	--	--	--	--	--	--	X
50	St. Frances Cabrini Church	--	--	--	--	--	--	X
51	St. Frances Cabrini School	--	X	--	--	--	--	--
52	St. John's Lutheran School	--	X	--	--	--	--	--
53	St. Joseph's Community Hospital	--	--	X	--	X	--	--
54	St. Mary's Immaculate Conception Parish School	--	X	--	--	--	--	--
55	Samaritan Home	--	--	--	--	--	--	X
56	Sandy Knoll Park[d]	--	--	--	--	--	X	--
57	Serigraph, Inc.	--	--	--	--	X	--	--
58	17th Avenue Group Home	--	--	--	--	--	--	X
59	Silverbrook Middle School	--	X	--	--	--	--	--
60	Social Security Administration	--	--	--	X	--	--	--

Table 21 (continued)

Code Number on Map 12	Name[a]	Type of Major Traffic Generator						
		Shopping Centers	Educational Institutions	Hospitals and Medical Centers	Governmental and Public Institutional Centers	Major Industrial/ Commercial Employers	Parks and Recreational Areas	Facilities for the Elderly and Disabled
61	Sunset Park	--	--	--	--	--	X	--
62	The Threshold, Inc.	--	--	--	--	X	--	X
63	Touchstone on Summit	--	--	--	--	--	--	X
64	Tri-Manor, Ltd.	--	--	--	--	--	--	X
65	U. S. Post Office	--	--	--	X	--	--	--
66	University Apartments	--	--	--	--	--	--	X
67	University of Wisconsin Center-Washington County campus	--	X	--	--	--	--	--
68	Villa Park	--	--	--	--	--	X	--
69	Washington County Courthouse	--	--	--	X	X	--	--
70	Washington County Department of Social Services	--	--	--	X	--	--	--
71	Washington County Historical Museum	--	--	--	X	--	--	--
72	Washington County Office on Aging	--	--	--	X	--	--	X
73	Washington County Senior Center	--	--	--	--	--	--	X
74	Washington Street Group Home	--	--	--	--	--	--	X
75	W. Washington Street strip development	X	--	--	--	--	--	--
76	West Bend City Hall	--	--	--	X	X	--	--
77	West Bend Clinic, S. C.	--	--	X	--	--	--	--
78	West Bend Community Memorial Library	--	--	--	X	--	--	--
79	West Bend Company	--	--	--	--	X	--	--
80	West Bend Gallery of Fine Arts	--	--	--	X	--	--	--
81	West Bend High School (East and West)	--	X	--	--	--	--	--
82	West Bend Industrial Park-East	--	--	--	--	X	--	--
83	West Bend Industrial Park-South	--	--	--	--	X	--	--
84	West Bend Joint School District	--	--	--	X	X	--	--
85	West Bend Mutual Insurance Company	--	--	--	--	X	--	--
86	West Bend Parks, Recreation and Forestry Department	--	--	--	X	--	--	--
87	West Bend Plaza	X	--	--	--	--	--	--
88	West Bend Police Department	--	--	--	X	--	--	--
89	Westfair Mall	X	--	--	--	--	--	--
90	Westwood Mall	X	--	--	--	--	--	--
91	Wingate Park	--	--	--	--	--	X	--
92	Wisconsin Department of Industry, Labor and Human Relations, Job Service and Unemployment Compensation Division	--	--	--	X	--	--	--
93	YMCA, Inc.	--	--	--	X	--	--	--
94	Ziegler Park	--	--	--	--	--	X	--

[a] *Unless noted, all facilities are located in the City of West Bend.*

[b] *Located in the Town of West Bend.*

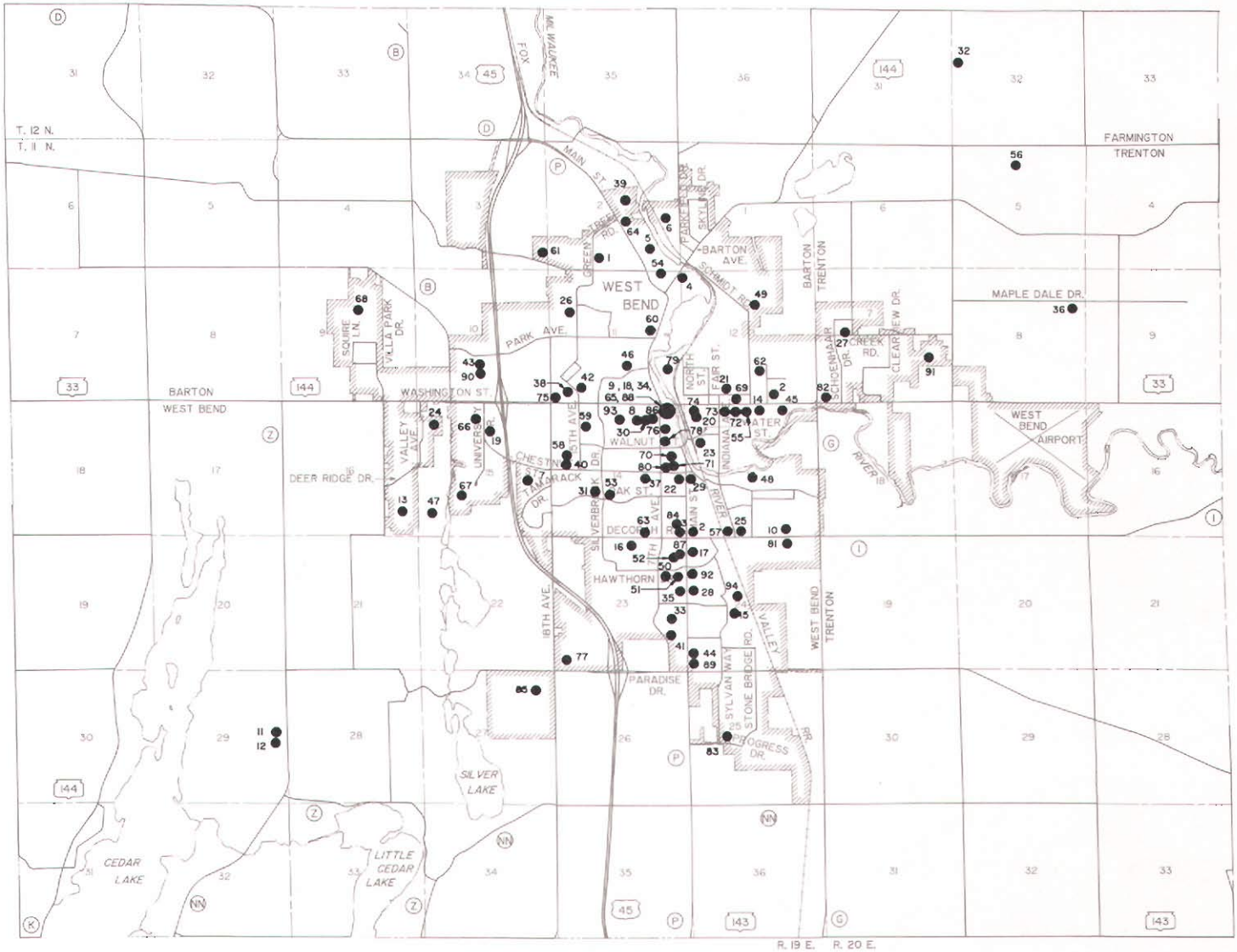
[c] *Located in the Town of Farmington.*

[d] *Located in the Town of Trenton.*

Source: SEWRPC.

Map 12

MAJOR TRAFFIC GENERATORS IN THE WEST BEND STUDY AREA: 1990



LEGEND

- ● MAJOR TRAFFIC GENERATORS
- 13 FACILITY IDENTIFICATION NUMBER (SEE TABLE 21)

Source: SEWRPC.

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Chapter IV

EXISTING TRANSIT SERVICES

INTRODUCTION

An understanding of the existing transit services within the study area is essential to the preparation of a transit development program. In the West Bend transit study area as of 1990, taxicab service, yellow school bus service, and intercity bus service are provided by private carriers either independently or under contract to local units of government. In addition, a number of specialized transportation services, most of which are intended for the elderly and disabled, are provided by both public and private social service agencies or facilities. Table 22 lists the transportation providers and characteristics of the existing transit services within the study area. Table 23 summarizes the estimated monthly ridership on these existing transit services.

HISTORY

The first known public transit service provided in the West Bend area was established in 1945 when Mr. Aaron W. Johnson, an established school bus operator in the area who conducted business as Johnson's Bus Service, initiated a local scheduled bus service known as the West Bend-Barton Bus Line. One of the local newspapers noted that the new service was "duly, ceremoniously, and officially inaugurated" on the morning of June 11, 1945. A photograph taken at the inauguration is reproduced in Figure 3.

The single bus route originated at the Company's garage in downtown Barton, circulated through the Village of Barton, traveled down what was then STH 55, later USH 45, into downtown West Bend before traveling a circuitous route through the remainder of West Bend and returning to Barton. The route is shown on Map 13. While some early minor adjustments were made, the basic route remained largely unchanged throughout the system's history.

One vehicle was required for this service, a high-headroom Ford school bus. The service was operated on a one hour headway, six days a week. The original schedule called for departing Barton at 6:20 a.m., 7:20 a.m., 8:30 a.m., and every hour thereafter until 10:30 p.m. Because of the design of the route, some stops were served more than once an hour. The 6:20 a.m. and 7:20 a.m. buses were "workers' specials," operating over the same streets as the later trips, although in a slightly different order, to provide a more direct route between residential areas and some of the major employers. Bus stops were typically located at two or three block intervals. Cash fares were established at $0.10 for adults and $0.05 for children. A weekly pass was available for $1.00. In keeping with the times, the slogan adopted by the bus system was "Ride on Our Tires."

Ridership on the fledgling bus service never approached expectations and the operation never became profitable. Ridership reportedly averaged about three to four passengers per hour on most runs, with a maximum load of 10 to 15 passengers on the two runs before and after the daytime shift. Despite the low ridership, the operator continued to promote the service and advertise it in the local newspapers on a regular basis. By 1951 wartime gasoline and tire rationing was a memory and local newspapers were ablaze with announcements for "all new postwar automobiles." Financial statements for the operation indicated an annual operating loss of about $4,000, a sizeable amount for a small business of that period. At a hearing of the Wisconsin Public Service Commission on the petition to discontinue the service, there was very little opposition. Effective September 1951 the West Bend-Barton bus service was discontinued.

Besides the school bus and local city bus operations, Mr. Johnson also experimented with providing other passenger services to the public in the West Bend area. In July 1946 Johnson's Bus Service began operation of a route between the communities of Hartford, Slinger, West Bend, Newburg, Saukville, and Port Washington. This service, also using a high-headroom Ford school bus, provided one round trip between Hartford and West Bend and two round trips between West Bend and Port Washington Monday through Friday. Few passengers took advantage of this service, and it was discontinued after only a few months of operation. In April 1947 Mr. Johnson began operation of a taxicab service in the City of West Bend with two new Packard

Table 22

SELECTED CHARACTERISTICS OF EXISTING TRANSIT SERVICES SERVING THE WEST BEND STUDY AREA: 1990

Service Provider	Type of Service	Eligible Users	Service Area	Times of Operation
American Cancer Society	Specialized	Cancer patients	Washington County and surrounding area	8:00 a.m. to 4:30 p.m. weekdays
American Red Cross	Specialized	Medical patients	Washington County and surrounding area	8:00 a.m. to 5:00 p.m. weekdays; evenings and weekends if driver available
Cedar Lake Home Campus/ Cedar Haven	Specialized	Campus residents	Washington County and surrounding area	As required
Cedar Ridge Retirement Campus	Specialized	Campus residents	Washington County and surrounding area	As required
Greyhound Lines, Inc.	Intercity, fixed-route	Anyone	United States	Three buses per day in each direction
City of Hartford Recreation Department (Red Flyer)[a]	Rural van, fixed-route	Anyone	Hartford-West Bend	Two round trips on Mondays, Wednesdays, and Fridays
Job Ride Program	Reverse commuter specialized van	Milwaukee central city residents	Milwaukee and surrounding area	Before and after weekday work shifts
Johnson School Bus Service, Inc.	School, fixed-route	Elementary and secondary school students not served by regular yellow school bus service	City of West Bend	Schooldays
LP & P Nichols, Ltd.	Specialized	Anyone[b]	Washington County and surrounding area	As required
Samaritan Home	Specialized	Home residents	Washington County	As required
Specialized Transport Services, Inc.	Specialized	Anyone[b]	Washington County and surrounding area	As required
The Threshold, Inc.	Specialized	Program participants	Washington County	As required
Veteran's Cab	Specialized	Anyone	City of West Bend	Monday through Saturday, 7:00 a.m. to 9:00 p.m.
Washington County Department of Social Service	Specialized	Medical and essential trips for low-income families	Washington County	8:00 a.m.to 5:00 p.m. weekdays; some weekends
Washington County Office on Aging (Red Bus)	Specialized	Users 60 years and older and all disabled	Washington County	Tuesdays through Thursdays, 9:00 a.m. to 3:00 p.m.; and Fridays, 8:00 a.m. to 4:00 p.m.
West Bend Joint School District[c]	School, fixed-route	Elementary school students living more than one and one-half miles from school and middle and high school students living two or more miles from school	West Bend Joint School District	School days

Service Provider	Vehicles	Fares
American Cancer Society	Private autos	No charge
American Red Cross	Station wagons and van	No charge
Cedar Lake Home Campus/Cedar Haven	Van, bus, and automobile	No charge
Cedar Ridge Retirement Campus	Van	No charge
Greyhound Lines, Inc.	Long-distance buses	Distance-related
City of Hartford Recreation Department (Red Flyer)[a]	Van	Distance-related
Job Ride Program	Vans	$2.00 per trip
Johnson School Bus Service, Inc.	Yellow school buses	Contract with parents
LP & P Nichols, Ltd.	Vans	Distance-related
Samaritan Home	Van, bus, and automobile	No charge
Specialized Transport Services, Inc.	Vans	Distance-related
The Threshold, Inc.	Buses	No charge
Veteran's Cab	Automobile	$3.25 up to three miles; then $1.20 per mile
Washington County Department of Social Services	Private automobiles	No charge
Washington County Office on Aging (Red Bus)	Mini-buses, vans, and automobiles	$1.00 per trip[d]
West Bend Joint School District[c]	Yellow school buses	No charge for eligible students

[a] *Service to be discontinued in 1991.*

[b] *Although intended for elderly and disabled persons.*

[c] *Majority of service provided by Johnson School Bus Service, Inc.*

[d] *$2.00 per trip for persons between four and 65 years of age who are not disabled.*

Source: SEWRPC.

Table 23

ESTIMATED MONTHLY RIDERSHIP ON THE EXISTING TRANSIT SERVICES SERVING THE WEST BEND STUDY AREA: 1990

Service Provider	Estimated Average Number of Trips per Month
American Cancer Society	15
American Red Cross, West Bend Chapter	370
Cedar Lake Home Campus/Cedar Haven	400
Cedar Ridge Retirement Campus	500
Greyhound Lines, Inc.	150
City of Hartford Recreation Department (Red Flyer)	25
Job Ride Program	250
LP & P Nichols, Ltd.	400
Samaritan Home	200[a]
Specialized Transport Services, Inc.	400
The Threshold, Inc.	9,000
Veteran's Cab	900
Washington County Department of Social Services	300
Washington County Office on Aging (Red Bus)	230
West Bend Joint School District	200,000

[a]*Most service for Samaritan Home residents provided by Specialized Transport Services, Inc., and LP & P Nichols, Ltd.*

Source: SEWRPC.

sedans. This service was operated by Mr. Johnson for about two years before being sold to a successor taxicab company. In 1991 Johnson School Bus Service, Inc., remains a family-owned-and-operated business, providing an extensive and well respected school bus service and transportation services of a nonemergency nature to individuals with special needs.

TAXICAB SERVICE

Within the City of West Bend, Veteran's Cab is the only private taxi company currently licensed to operate. Veteran's Cab provides door-to-door service on demand to anyone, using a single vehicle. The service area corresponds generally to the city limits of the City of West Bend, and service is available Monday through Saturday from 7:00 a.m. to 9:00 p.m. A minimum fare of $3.75 is charged for trips of up to three miles. Senior citizens have a reduced fare of $3.25 for trips of up to three miles. Each additional mile beyond three miles costs $1.20. Veteran's Cab has been owned and operated by Mr. Gus Miller since 1982.

Figure 3

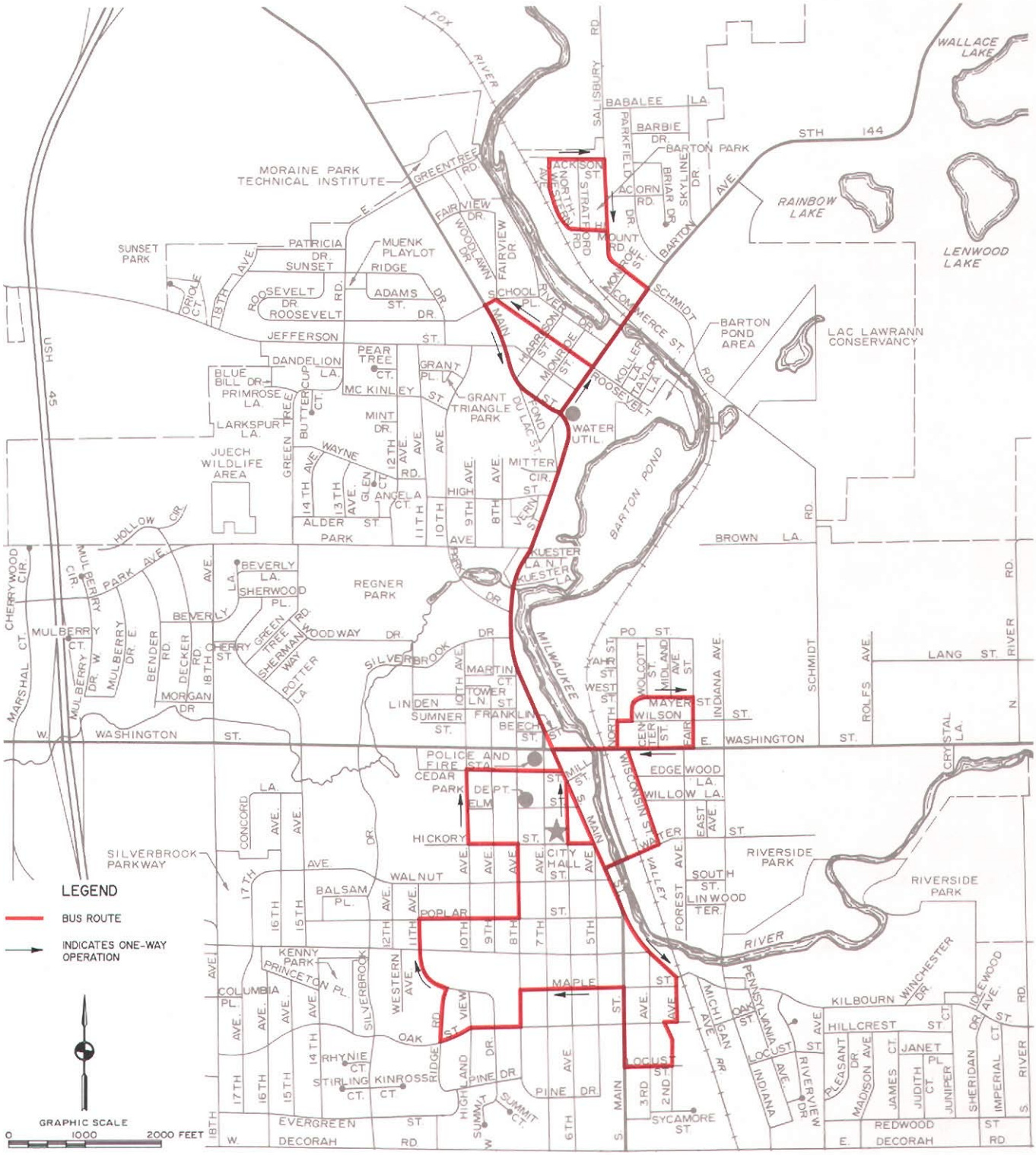
FIRST DAY OF OPERATION
WEST BEND-BARTON BUS LINE

Photo courtesy of Johnson School Bus Service, Inc.

The Washington County Office on Aging administers a "user-side" subsidy program in the City of West Bend which enables elderly and disabled

Map 13

HISTORIC WEST BEND-BARTON BUS LINE OPERATED BY JOHNSON BUS SERVICE: 1945-1951



Source: Johnson School Bus Service, Inc., and SEWRPC.

individuals to use the taxi service at a lower cost to the individual. This program enables eligible people who do not have their own vehicle and who may have limited income to have greater opportunities for making trips around West Bend because of the lower cost per trip. Any West Bend area individual age 60 or over and any individual who is disabled on either a temporary or permanent basis is eligible to use this service. Persons desiring to use this service must apply to the Office of Aging to be enrolled in the program and receive a books of 10 coupons, each worth $3.25, for $10 per book. Thus, eligible users of this service receive a $2.25 discount on the regular taxi fare. At the end of the taxi ride, the individual presents the driver with one coupon. If the fare for the taxi ride exceeds $3.25, the passenger is responsible for any additional fare. The taxi company submits the coupons to the Office of Aging once a month for reimbursement.

The majority of trips using Veteran's Cab are typically made to transport passengers under the user-side subsidy program. It is estimated that the typical number of trips made using this service varies from 600 to 1,200 per month and averages about 900 per month, depending on the weather and other variables. It is estimated that an average of about 760 trips per month is made using the user-side subsidy program in the City of West Bend.

YELLOW SCHOOL BUS SERVICE

Yellow school bus service is provided by the West Bend Joint School District. This service is generally provided within the School District to and from public and private elementary, middle, and high schools for all eligible students who reside in the School District. Eligible students are those kindergarten students who live one mile or more from their school, elementary school students who live one and one-half miles or more from school, and middle and high school students who live two miles or more from school. The distance is measured "over the road" from the school which the students are entitled to attend. Most of the school bus service for the District is presently provided under contract by Johnson School Bus Service, Inc., which uses about 55 vehicles making about 180 bus trips on a typical school day. The school district also owns and operates six buses which are used for three to four regular school bus routes, for daytime and extracurricular student activities, and for transporting students with special needs. The school district also contracts with individual automobile drivers to accommodate specific special transportation needs of special education students.

Johnson School Bus Service, Inc., operates two "cold-weather" routes in the City of West Bend. These routes are privately operated and are intended for students who live within one and one-half or two miles of the school but whose parents want them to have the option of taking a bus during inclement weather. Arrangements for this service are handled directly between Johnson School Bus Service, Inc., and the parents, with Johnson School Bus collecting all revenues. About 100 students per day, making up to an estimated 4,000 trips per month, use these cold-weather routes. Students who live along the school district routes but who reside too close to be eligible to use the service have the option of using the school buses by paying a fare. Revenues from this option are collected by the School District. Such use, however, is minimal and this traffic accounts for an insignificant amount of annual revenue.

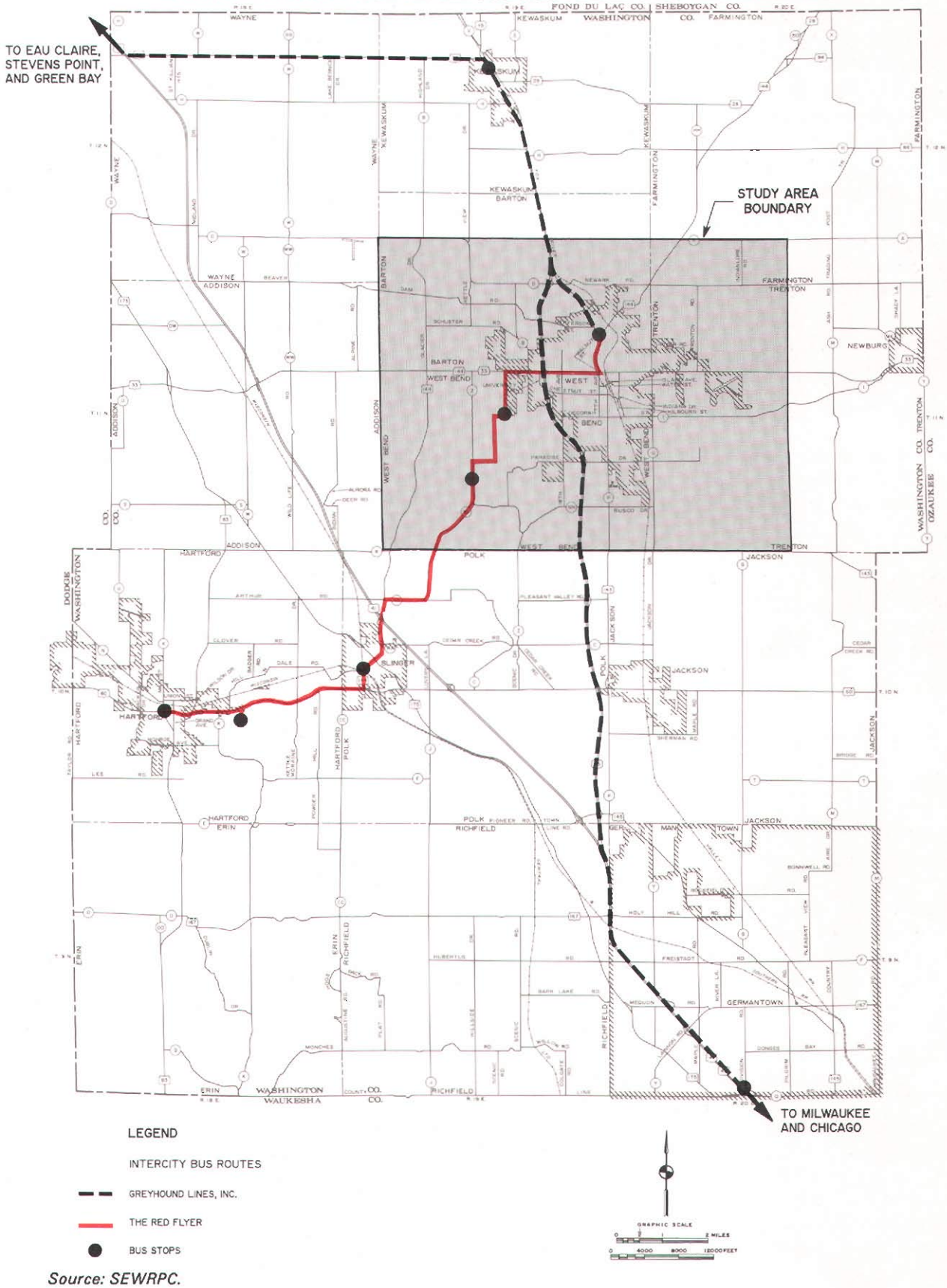
During the 1990-1991 school year, there were about 8,000 students attending all public and private schools in the District, of which 4,400 were eligible to use the school bus services. The number of students using the yellow school bus service on a particular day can vary widely depending upon factors such as weather conditions, getting rides from parents or friends, and after-school activities. It is estimated that an average total of about 200,000 trips are made on all of the yellow school bus services per month when all schools are in session.

INTERCITY BUS SERVICE

Intercity bus service is provided to the City of West Bend by Greyhound Lines, Inc. The regularly scheduled intercity bus service provided by Greyhound consists of three trips daily in each direction through the City of West Bend on the route shown on Map 14. One daily trip in each direction is for through travel between Eau Claire, Stevens Point, and Milwaukee. The second daily trip in each direction is a through bus between Green Bay, Milwaukee, and Chicago. The third daily trip in each direction is a

Map 14

INTERCITY BUS SERVICE WITHIN THE WEST BEND STUDY AREA: 1990



Source: SEWRPC.

through bus between Stevens Point, Milwaukee, and Chicago. All the buses that stop at West Bend also make stops at Fond du Lac, Kewaskum, and Menomonee Falls. At Milwaukee and Chicago, passengers can make connections to all other parts of the national Greyhound system. West Bend has a full service agency which handles tickets, baggage, and express for all Greyhound buses, located at 1516 N. Main Street. An estimated 150 passengers board Greyhound buses at West Bend during an average month.

A rural van service also operates between the Cities of West Bend and Hartford. Known as the "Red Flyer," the service is operated by the City of Hartford Department of Recreation, which also operates Hartford's shared-ride taxi service and the "Red Bus" specialized transportation services for Washington County. The Red Flyer service consists of a van operating a round trip each morning and evening from Hartford and Slinger to West Bend and return. The two round trips currently operate on Mondays, Wednesdays, and Fridays and are scheduled to connect with Greyhound service into Milwaukee. The Flyer is available to anyone. The Red Flyer route is shown on Map 14. An estimated average of 25 trips a month are made using this service. Because of the low ridership, this service is proposed to be discontinued as of January 1, 1991.

During 1990, employees of Serigraph, Inc., located in the City of West Bend, participated in a special program known as the "Job Ride" program, created by the Wisconsin Department of Transportation. Originally established as a pilot, or demonstration, program in 1987 to test alternatives to traditional fixed-route transit service, Job Ride carries reverse commuter travel by unemployed residents of the Milwaukee central city seeking jobs in outlying suburban areas. Current service under the program is provided by three nonprofit organizations: the Milwaukee Urban League, Goodwill Industries, Inc., and Milwaukee Careers Cooperative, who either use their own vehicles or contract with other transit operators. During 1990 a weekday average of up to six people used the Job Ride program to make about 250 trips per month between the central portion of Milwaukee County and Serigraph, Inc.

SPECIALIZED TRANSPORTATION SERVICES

Several public and private organizations and social service agencies currently provide specialized, nonfixed-route carrier service to specific population groups in the West Bend area. The Washington County Office on Aging administers a specialized transportation program aimed at providing demand-responsive transportation service to elderly persons, age 60 and older, and disabled residents of Washington County. Known as the "Red Bus," the service is operated on a contract basis by the City of Hartford Department of Recreation. The program schedules transportation services for eligible users based on four categories of travel demand. Regarded as the highest priority is travel for medical and health needs. Trips made for nutritional activities, including trips to elderly nutritional sites, grocery stores, and restaurants are given second priority. Work-related trips are third priority, and trips for recreational and social reasons rank fourth.

The service is available on a minimum 24-hour, advance reservation basis at a cost of $1.00 per trip for elderly and disabled persons, and $2.00 per trip for nonelderly aides or attendants. Tickets for use on the Red Bus service are available through the Office on Aging. For the elderly and disabled who cannot afford the fare, the Office on Aging can arrange a fare waiver upon accepted application. A 12-passenger bus is based in West Bend and serves the West Bend, Allenton, Boltonville, Fillmore, Jackson, Kewaskum, and Newburg areas. Service hours are 9:00 a.m. to 3:00 p.m. Tuesdays, Wednesdays, and Thursdays, and 9:00 a.m. to 4:00 p.m. on Fridays. Red Bus service is also provided by Washington County for eligible individuals in the Hartford and Germantown areas. During the first 10 months of 1990, Red Bus service based in West Bend handled an estimated 230 trips per month, of which 150 were entirely within the City of West Bend. The remainder were either completely outside the City or between the City and rural areas.

The Washington County Department of Social Services provides specialized transportation services to low-income individuals and families

resident in Washington County. The service is provided by the Department for medical and other essential purpose trips between 8:00 a.m. and 5:00 p.m. Monday through Friday and occasionally on weekends. The service is provided with volunteer drivers using personal vehicles at no charge to the user. It is estimated that an average of about 300 trips a month are made furnishing this service.

Specialized transit services are also provided in the West Bend area by The Threshold, Inc., a private social service agency offering referral services, training programs, and employment opportunities for the physically and developmentally disabled. The agency provides this service throughout Washington County to individuals participating in its programs. The service is presently provided by the agency through use of its private fleet of eight wheelchair lift-equipped buses. The Threshold currently serves clients making about 9,000 one-way trips per month. Included in this figure are clients of two public social service agencies, the Division of Vocational Rehabilitation of the Wisconsin Department of Health and Social Services and the Washington County Combined Community Services Agency, which contract with The Threshold for client transportation services to and from The Threshold on various days of the week.

The American Cancer Society provides door-to-door transportation services to individuals, for medical purposes only, in the West Bend area and in Washington County at large. Eligible users are limited to cancer patients, and reservations for service are preferred one to two days in advance of the day required. The service is provided for trips to and from hospitals located both inside and outside the County for radiation and chemotherapy treatment. Trips outside the County are generally to hospitals in Milwaukee, Waukesha, or Fond du Lac. Currently, the American Cancer Society specialized transportation service is provided by volunteer drivers using personal vehicles at no charge to the user. The number of persons using the service and trips made can vary widely from month to month, however. It is estimated that an average of about 15 trips a month are made under this arrangement.

The West Bend Chapter of the American Red Cross provides specialized transportation in that area of Washington County east of STH 41, including the City of West Bend. The Chapter provides service to Washington County residents primarily for medical-purpose trips to destinations inside and outside the County, using volunteer drivers of vehicles owned by the society. This American Red Cross door-to-door specialized transportation service is available at no charge to the user with advance reservations from 8:00 a.m. to 5:00 p.m. on weekdays. Service at other times is provided as needed if a driver is available. The West Bend Chapter has two station wagons and one accessible van available for this service. It is estimated that an average of 370 trips per month are made using this service.

There are also two private specialized transportation services that operate in the West Bend area. These are Specialized Transport Services, Inc., and LP & P Nichols, Ltd. Both these operators provide transit services of a nonemergency nature, primarily to to elderly and disabled persons. Most trips tend to be health-related, such as trips to and from hospitals, nursing homes, and physicians' offices. Service is door-to-door, and there are no strict service area boundaries. Although service is available on any day needed, advance reservations are normally required. Specialized Transport Services, Inc., operates three wheelchair lift-equiped vans and is based in West Bend. LP & P Nichols, Ltd., is based in Fond du Lac and typically operates three of four wheelchair lift-equipped vans in the West Bend area of its statewide fleet of 90 vehicles.

The Cedar Lake Home Campus, Cedar Ridge Retirement Campus, and the Samaritan Home also provide specialized transportation services for their respective residents. For such services, Cedar Lake Home, a private nonprofit facility, operates two vans, one bus, and one automobile; Cedar Ridge Retirement Campus operates one van; and Samaritan Home, a public facility, operates one van, one bus, and one automobile. No special fares are charged, and service areas and hours are dictated by the needs of the residents. It is estimated that the Cedar Lake Home Campus provides an average of 400 trips per month to its residents, Cedar Lake Retirement Campus provides an average of 500 trips per month to its residents, and the Samaritan Home provides an average of 200 trips per month to its residents.

SUMMARY

The first public transit service provided in the West Bend area was established in June 1945 with the inauguration of a local fixed route bus service known as the West Bend-Barton Bus Line by Johnson Bus Service. The single bus route was operated between downtown Barton and downtown West Bend, and its route is shown on Map 13. The Company operated the bus route until September 1951, when service was discontinued because of low ridership and high operating losses. In addition to school and local city bus operations, the Company also experimented with providing other transit services to the public in the West Bend area. In July 1946 the Company began operation of a bus route between the communities of Hartford, Slinger, West Bend, Newburg, Saukville, and Port Washington. However, this service was discontinued after only a few months because of low ridership. In April 1947 the Company initiated a taxicab service in the City of West Bend and operated it for two years before selling it to a successor taxicab company.

Existing transit services in and near the City of West Bend consist of specialized transportation services to certain population groups, local taxicab service, and intercity bus service. This chapter describes those services.

It has been shown that the existing local transit services consist largely of specialized transportation services designed to serve the needs of the elderly and disabled population groups in and around the City of West Bend. Such services typically require an advance reservation, operate only during certain hours or on certain days, accommodate trips within Washington County, and use vehicles such as accessible vans and accessible buses, station wagons, and private automobiles. The emphasis of these services is on handling trips for medical and other essential reasons; some of these services are available only to residents of specific residential or care facilities. The operators of these services include the American Cancer Society, the West Bend Chapter of the American Red Cross, the Cedar Lake Home Campus, the Cedar Ridge Retirement Campus, selected nonprofit organizations participating in the Wisconsin Department of Transportation's Job Ride program, LP & P Nichols, Ltd., Specialized Transport Services, Inc., the Samaritan Home, The Threshold, Inc., Washington County Department of Social Services, Washington County Office on Aging, and the West Bend Joint School District.

Only three transit services serving the City of West Bend are available for use by the general public. These include bus services provided by Greyhound Lines, Inc., operating one of their intercity bus routes through the City of West Bend on a daily basis; rural van service provided by the City of Hartford Recreation Department, which operates triweekly service from Hartford and Slinger, connecting with the Greyhound bus route in West Bend; and taxicab service provided by Veteran's Cab in the City of West Bend. The latter constitutes the only regular transit service available to the general public in the City of West Bend at present.

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Chapter V

EVALUATION OF EXISTING TRANSIT SERVICES

INTRODUCTION

This chapter provides an evaluation of the existing transit services in the West Bend area. The evaluation of existing transit services was conducted on a areawide basis to ascertain the degree to which the existing transit services currently meet the needs of priority population groups in the City of West Bend and its environs; to determine the existing land use pattern in the study area; and to describe the current travel habits and patterns of the study area population. The following sections of this chapter present the findings of the evaluation.

EVALUATION OF EXISTING TRANSIT SERVICES

The evaluation of existing public transit services revealed a number of deficiencies in the transit services currently provided in the West Bend area. Specifically, deficiencies were found with respect to the provision of transit service to both priority and general population groups. Deficiencies were also found with respect to service to major trip generators. Finally, deficiencies were found with respect to meeting the existing travel habits and patterns of the residents of the area.

Service to Population Groups

As stated in Chapter III, segments of the population whose dependence on public transit services tends to be greater than that of the population as a whole were identified. These groups included school-age children, elderly persons, disabled individuals, minorities, low-income families, and households without access to an automobile. Currently, specialized transportation services are being provided to serve a portion of the needs of all but the last two population groups in the study area.

School-age children in the study area are currently provided with yellow school bus service by the West Bend Joint School District. Eligible students include kindergarten students who live one mile or more from school; elementary school students who live one and one-half miles or more from their school; and middle school and senior high school students who live two miles or more from their school. Based on the experiences of other Wisconsin cities which are served by both yellow school bus service and regular local transit service, a potential market for local school transit trips in the City of West Bend still exists. This market consists of those students who are not eligible for the existing yellow school bus services provided free to the student by the School District. The size of the potential student market is estimated at up to 1,000 students, nearly one-third of the 3,200 students in the City of West Bend who are not eligible for yellow school bus service and who do not make use of the special school transportation offered by the School District or Johnson School Bus Service, Inc. In recognition of this potential market, the West Bend School District allows students who live along existing yellow school bus routes, but who are ineligible for the service, to use the yellow school buses by paying a fare. The existing yellow school bus operator also operates two "cold-weather" yellow school bus routes in the City of West Bend which are intended to serve students who live between one and one-half and two miles of school.

Elderly and disabled persons residing in the study area are currently supplied with several specialized transportation services designed to provide some degree of personal mobility. The special "Red Bus" service and the West Bend user-side subsidy program administered by the Washington County Office on Aging provides service to virtually all elderly and disabled population concentrations and facility locations identified in the study area, as described in Chapter III of this report. The specialized demand-responsive transportation service offered through the Red Bus program provides a highly accessible form of transportation at a low cost to the tripmaker. However, the program currently requires eligible users to make a reservation for the service at least 24 hours in advance of the time transportation is needed. The advance reservation requirement for this service necessitates an advance knowledge of travel requirements and, therefore, hinders the ability to make trips on a spontaneous basis for such common purposes as shopping, recreation, or the conduct of personal business.

The user-side subsidy program supplies elderly and disabled persons residing in the City of West Bend with a transportation service that provides a high degree of accessibility to destinations in the City and is available on an immediate response basis through the use of the existing taxicab service. The fare of $1.00 per trip for program participants represents a $2.25 discount on the elderly and disabled taxi fare for each trip. As previously noted in Chapter IV of this report, the minimum taxi fare for senior citizens and disabled persons is $3.25 for trips up to three miles in length, which includes the vast majority of trips made in the West Bend area. The user-side subsidy program, therefore, pays a substantial portion of each taxi trip and may be viewed as particularly helpful to those persons who must rely on fixed monthly incomes.

The user-side subsidy program, however, has a limited capability to respond to the travel demand placed on it by the elderly and disabled community. Within the City of West Bend, the program relies on the service offered by only a single taxicab operator operating a single taxicab. The Washington County Office on Aging has indicated that, while it believes the current taxi operator is making every effort to serve the trip requests it receives, there are certain times of the day, and certain days of the month, when the operator cannot adequately serve all the trip requests it receives. In this respect, the Office on Aging estimates that an average of three to five trip requests per day are not adequately served. Patrons are then required to wait between one and two hours for a taxicab to respond to a trip request, or a trip request is missed by the operator. In order to manage the demand placed on the taxicab operator, the Office on Aging has placed restrictions on the number of subsidized trips which participants under the user-side subsidy program can make via the taxicab service, based on trip priorities. Eligible users who must absolutely rely on taxicab service for trips to and from work are allowed to make as many work trips per month under the program as they require, with the current maximum being about 40 trips per month. Somewhat lower numbers of monthly trips are allowed for trips made for medical, nutritional, and shopping purposes. The lowest number of monthly trips, 10, is allowed to eligible users who make only nonessential trips under the program. The current average for the entire program is a limit of 20 trips per month per eligible user. The size of the current taxicab operation, consequently, places some restrictions on the amount of travel which can be made by elderly and disabled persons under the user-side subsidy program.

It is estimated that there were 3,000 elderly persons, age 65 and older, and 1,000 transportation-disabled individuals of all ages residing in the City of West Bend in 1990. There are currently about 270 elderly and disabled individuals registered as eligible to participate in the user-side subsidy program in the City of West Bend, about 100 of whom use the program during an average month. It was also estimated that 760 trips per month, or about 30 per day, were made using the taxicab services offered under the user-side subsidy program in 1990. This information would indicate a subsidized level of tripmaking for elderly and disabled persons under the user-side subsidy program of about 0.3 trip per day, which is well below the estimated 1990 average weekday trip rate of 2.1 trips per person experienced by the City of West Bend's population as a whole. It may, therefore, be concluded that the program provides elderly and disabled users with a lower degree of personal mobility than that experienced by the general population. It should be noted, however, that some of the difference in the trip rate for participants in the user-side subsidy program may be attributed to a lower overall trip rate for elderly persons, who have retired from the work force and make fewer trips over all.

Deficiencies in the specialized transportation services offered by other public and private social service agencies and organizations in the study area are generally the result of the eligibility limitations of the present services and the reliance on volunteer drivers to provide the services. While providing for the emergency transportation needs of particular program participants and clients, these services do not address the normal daily travel requirements of the elderly or disabled segments of the resident population.

At the present time, low-income families and those who do not have access to an automobile are provided with specialized transportation services only if they belong to one of the four priority population groups identified as receiving specialized transportation services. Persons in

cannot afford, to own automobiles, and the general resident population as well, must rely on the private taxicab company for the provision of local public transportation service in the City of West Bend. The limited size of the current taxicab operation may restrict its use in serving the travel needs of the persons in these groups, just as it restricts the personal mobility of the elderly and disabled population.

Service to Land Uses

Currently, the private taxicab company in the City of West Bend provides the only local transit service available to the general public in the study area. The service area for the taxicab company generally corresponds to the corporate limits of the City of West Bend, although the operator will serve areas outside the City on occasion. As noted in Chapter III, local public fixed-route or demand-responsive transit service can be provided efficiently only in areas of substantial contiguous high-density (7.0 to 17.9 dwelling units per net residential acre) and medium-density (2.3 to 6.9 dwelling units per net residential acre) urban development. Such densities were identified as currently existing in the study area only in the City of West Bend. Consequently, the existing taxicab service area corresponds well with the areas of high-density and medium-density urban development in the study area, which warrant local transit service. The current taxicab service area would also include 75 of the 78 major traffic generators identified in the study area; 26 of the 29 facilities for the elderly and disabled identified in the study area; and virtually all the employment opportunities in the City of West Bend, representing about 87 percent of the total jobs in the study area. Based on this information, it can be stated that the service area for the current private taxicab operation provides public transit service to the portion of the study area where it is warranted; and it also provides for extensive areal coverage of the vast majority of the resident population, major traffic generators, and employment opportunities in the study area. It should be noted, however, that the relatively small size of the current taxicab operation, one taxicab, severely limits the amount of service which it can actually provide in its service area.

Service Relative to Existing Travel Habits and Patterns

It is estimated that 900 trips per month are currently made on the service provided by the existing private taxicab operator in the City of West Bend. Based on an estimated annual ridership of 10,800 trips for the taxicab service, and the estimated resident population of the City of West Bend in 1990 of 24,600 persons, the current taxicab operation carries about 0.4 annual ride per capita. The projected 1990 total annual rides per capita for subsidized public transit systems in similar sized Wisconsin communities are shown in Table 24. Total annual rides per capita for the systems listed range from 1.5 to 11.7 for the shared-ride taxicab systems and from 4.9 to 9.5 for the fixed-route bus systems. Ridership levels on the current taxicab service in the City of West Bend thus fall far below those of other Wisconsin communities which provide publicly subsidized transit services for the general public.

Estimates of 1990 total person travel for the study area indicate that approximately 106,900 person trips are currently generated in the study area on an average weekday. About 64 percent of this total, some 68,500 trips, are being made to destinations internal to the study area. Approximately 51,700 of the 68,500 internal trips, or 75 percent, are estimated to be made in the City of West Bend and its immediate environs. Areas identified in Chapter III as attracting large numbers of internal trips include the West Bend central business district, the community shopping areas, and major employment centers in the City of West Bend. It is estimated that the current general public transit service provided by the private taxicab company serves only 900 trips per month, or about 30 trips per average weekday. This represents less than 0.1 percent of the total demand for internal travel on an average weekday in the study area.

As already noted, taxicab service is the only form of public transportation presently available to the general public as an alternative to the automobile for making local trips in the study area. The cost of travel by taxi in the City of West Bend is relatively high. As already noted, the cost of travel by taxi for trips up to three miles in length is $3.75 per trip for the general public, $3.25 per trip for elderly and disabled who do not participate in the County's user-side subsidy program, and $1.00 per trip for elderly and disabled persons under the user-side subsidy program. An additional charge of $1.20 per mile is assessed for trips over three miles.

Table 24

TOTAL ANNUAL RIDES PER CAPITA FOR WISCONSIN SHARED-RIDE TAXICAB AND SMALL URBAN FIXED-ROUTE BUS SYSTEMS: 1990 (PROJECTED)

Urban Area	Service Area Population[a]	Annual Revenue Passengers	Annual Rides Per Capita
Shared-Ride Taxicab System			
Baraboo[b]	9,700	18,000	1.9
Beaver Dam	14,200	71,800	5.1
Berlin	5,400	16,000	3.0
Black River Falls	3,700	17,300	4.7
Chippewa Falls	13,500	64,000	4.7
Fort Atkinson	10,200	48,500	4.8
Hartford	7,900	12,400	1.6
Jefferson	5,800	16,000	2.8
Marshfield	19,600	96,900	4.9
Platteville	9,700	14,900	1.5
Portage	8,600	100,800	11.7
Reedsburg	5,600	16,100	2.9
Rhinelander	8,000	47,200	5.9
Richland Center	5,000	17,000	3.4
Ripon	7,200	27,000	3.8
River Falls	8,700	18,500	2.1
Shawano	7,500	15,000	2.0
Sparta	7,900	16,100	2.0
Stoughton	8,800	19,000	2.2
Waupaca	4,900	14,400	2.9
Whitewater	12,000	42,000	3.5
Wisconsin Rapids[c]	24,000	57,000	2.4
Fixed-Route Bus System			
Beloit	35,100	240,300	6.8
Fond du Lac[d]	41,700	326,500	7.8
Manitowoc[e]	46,100	337,200	7.3
Merrill	10,000	64,000	6.4
Rice Lake	8,100	77,000	9.5
Stevens Point[f]	26,000	134,600	5.2
Superior	26,900	178,200	6.6
Watertown	19,000	93,300	4.9

[a]*Based on 1989 population estimates from the Wisconsin Department of Administration.*

[b]*Includes the Village of West Baraboo.*

[c]*Includes the City of Nekoosa and the Village of Port Edwards.*

[d]*Includes the Village of North Fond du Lac.*

[e]*Includes the City of Two Rivers.*

[f]*Includes the Villages of Whiting and Park Ridge.*

Source: Wisconsin Department of Transportation, Bureau of Transit; and SEWRPC.

A comparison was made of the costs of travel by taxicab and by private automobile. For purposes of this comparison, the costs of owning and operating an automobile were based on published national averages for the fixed and variable costs of owning and operating an intermediate-size car in 1990.[1] Because the costs of owning and operating an automobile will vary with the level of use, and because different segments of the population may be expected to have different levels of use, the costs were estimated for several levels of use, as set forth in Table 25. For an automobile driven about 10,000 miles per year, which is considered an average level of use, the cost of owning and operating an automobile during 1990 was estimated at $0.41 per mile. In the West Bend study area, where the average length for internal trips was 2.3 miles, an annual automobile use of between 4,000 and 6,000 miles was considered more representative, particularly for persons making local trips which could be served by local taxicab or bus services. The average cost of owning and operating an automobile for such local travel would range from $0.63 to $0.90 per mile for automobiles driven between 6,000 and 4,000 miles per year, respectively.

A comparison of the costs of travel by taxicab, based on the actual 1990 fare structure, cited above, with the costs of automobile travel, based on an estimated 1990 cost of between $0.41 and $0.90 per mile, is shown in Figure 4. This graph indicates that travel by taxicab for participants in the County's user-side subsidy program is competitive with travel by automobile only for trips of between 2.5 and 3.5 miles, assuming the automobile is driven 10,000 miles per year. Under this assumption, travel by taxicab is not competitive with travel by automobile on a cost basis for trips of any length for all other taxicab patrons. However, assuming that the automobile will be driven less than 10,000 miles a year, travel by taxicab becomes more cost competitive. For example, if the automobile is assumed to be driven only 4,000 per year, travel by taxicab for participants in the user-side subsidy program becomes cost competitive for trips between one mile and eight miles. This range of trip length is characteristic of most trips made under the program.

Based on the known travel patterns in the planning area, the average length of all person trips originating in, or destined to, the study area is 6.7 miles, and the average length of all

[1] *Based on data published by the American Automobile Association as reported by the Motor Vehicle Manufacturers Association of the United States, Inc., in Motor Vehicle Manufacturers Association Facts and Figures '90.*

Table 25

ESTIMATED COST PER MILE OF TRAVEL BY PRIVATE AUTOMOBILE: 1990

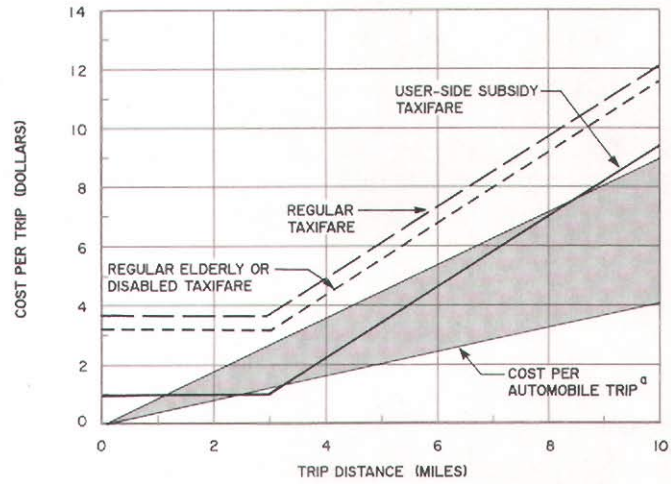
Miles Operated	Total Cost[a]	Total Cost per Mile
4,000	$3,592	$0.90
6,000	3,760	0.63
8,000	3,928	0.49
10,000	4,096	0.41
20,000	4,936	0.25

[a]Based on an intermediate-size car. Assumes fixed costs for depreciation, finance charges, license and registration, and insurance; and variable costs for gas and oil, maintenance, and tires.

Source: American Automobile Association, Motor Vehicles Manufacturers Association of the United States, Inc., and SEWRPC.

Figure 4

COMPARISON OF THE ESTIMATED COST OF TRAVEL BY AUTOMOBILE WITH THE ESTIMATED COST OF TRAVEL BY TAXICAB IN THE WEST BEND STUDY AREA: 1990



[a] ASSUMES A COST OF BETWEEN $0.41 PER MILE FOR AUTOMOBILES DRIVEN 10,000 MILES PER YEAR, AND $0.90 PER MILE FOR AUTOMOBILES, DRIVEN 4,000 MILES PER YEAR.

Source: SEWRPC.

person trips made entirely inside the study area is 2.3 miles. Therefore, the average cost of a trip made by automobile entirely inside the study area should be $0.94 for automobiles driven 10,000 miles per year. This is substantially less than the base fares for taxicab travel for both the general public and for elderly and disabled persons and slightly less than the cost of travel by taxi under the user-side subsidy program. Assuming an annual automobile mileage of 4,000, the average cost per automobile trip entirely inside the study area should be $2.07. This is still below the base fares for travel by taxicab for both the general public and for elderly and disabled persons, yet about twice the cost of travel by taxicab under the user-side subsidy program. Under some circumstances, travel by taxicab may be expected to be more expensive than travel by automobile in the study area. The higher cost of taxicab travel compared to automobile travel is one factor which limits the consideration of the taxicab mode for use by the general public as a viable alternative to the automobile for internal travel.

Work purpose trips normally constitute a substantial portion of daily transit trips and provide a stable ridership base for most urban transit systems. Of the 29,900 total person work purpose trips which are currently estimated to be generated in the study area on an average weekday, about 16,400, or 55 percent, are made entirely in the study area. The present level of public transit services provided to residents of the study area results virtually in the sole use of the automobile as the mode of transportation for these trips to and from work.

SUMMARY

This chapter has set forth an analysis of the existing public transit services provided in the study area. The major deficiency in the current level of transit service for the City of West Bend is a lack of transit service providers capable of effectively serving both the general public and the transit-dependent segments of the population. This deficiency has resulted in a level of use by the City's population of the nonsubsidized transit services now available which is far below the level of use in communities of similar size with publicly subsidized transit services.

Specialized transportation services to priority population groups provide some degree of mobility to these groups, but restrict the level of usage through advance reservation requirements and eligibility requirements. Currently, only the private taxicab company provides the general public with local transit service in the study area. While the service area for the current private taxicab operation provides for extensive areal coverage for the vast majority of the resident population, major traffic generators, and employment opportunities in the study area, the relatively small size of the current taxicab operation, one vehicle, limits the amount of service that can actually be provided in the service area. As a result, the total annual ridership per capita on the taxicab service in the City of West Bend falls far below that experienced in other Wisconsin communities providing subsidized transit services to the general public. The cost of local taxicab service is also not competitive with the cost of automobile travel in the study area, a fact which limits the consideration of taxi service as a viable alternative to the automobile for internal travel.

The evaluation documented in this chapter has indicated that the existing local transit services are primarily specialized transportation services designed to serve the needs of specific population groups and, along with the local taxi service, do not provide the general public with an effective alternative to automobile travel.

Chapter VI

EXISTING TRANSIT LEGISLATION AND REGULATIONS

This chapter summarizes legislation and related regulations at the federal, state, and local levels affecting the provision of public transit service in the City of West Bend study area. Federal legislation and related administrative rules regulate the availability and distribution of federal financial aid for capital improvement projects, operating subsidies, and technical studies. State legislation specifies the institutional structure for public transit systems and tax relief structures, and provides for operating subsidies. Pertinent local ordinances include certain regulations affecting transit service.

FEDERAL LEGISLATION

Federal assistance for urban public transportation was first provided in 1961 through a modestly funded section of the Federal Housing and Urban Development Act. The section authorized federal expenditures for demonstration projects and for low-interest emergency loans for transit system development. Currently, federal aid for providing urban transit services is available primarily under the provisions of the Urban Mass Transportation Act of 1964 and its subsequent amendments.

Urban Mass Transportation Act of 1964, as Amended

The landmark Urban Mass Transportation Act of 1964 represented the first significant federal effort to provide financial assistance for transit service by the establishment of a comprehensive program of matching grants for preserving, improving, and expanding urban public transit service. The 1964 Act has been amended several times, most recently by the Federal Surface Transportation and Uniform Relocation Assistance Act of 1987. The federal reorganization of 1968 transferred responsibility for administering the Act from the U. S. Department of Housing and Urban Development to the U. S. Department of Transportation through the establishment of the Urban Mass Transportation Administration (UMTA) within the latter Department. Programs under the Act offering designated eligible local recipients sources of federal funds to assist them in carrying out public transportation projects are described below.

Section 3 Funds: Discretionary capital assistance grants are authorized under Section 3 of the Urban Mass Transportation Act of 1964, as amended by the Federal Surface Transportation and Uniform Relocation Assistance Act of 1987. Section 3 grants are made on a project-by-project basis at the discretion of the Secretary of the U. S. Department of Transportation. Such grants are potentially available to state or local public agencies that operate or assist in the operation of transit systems in both urbanized areas, urban areas having a central city of 50,000 or more population, and nonurbanized areas. Section 3 grants are available to provide up to 75 percent of the cost of eligible projects, which include those for rail system modernization, construction and extension of new fixed-guideway systems, and bus and bus-related equipment and construction projects.

Because the Section 3 program is currently viewed as the primary source of major one-time capital investments in the nation's transit infrastructure, such as the construction of new fixed-guideway rapid transit systems, only a small portion of the Section 3 funds appropriated nationally are available on a discretionary basis for use toward other projects, including bus and bus-related facilities. Demand is, accordingly, high for the limited discretionary funding available for bus projects through the program. In the past, the Urban Mass Transportation Administration has indicated that, in reviewing applications for the limited Section 3 funds available, applicants who propose a local matching share significantly greater than the 25 percent required under the program will improve their chances of receiving a Section 3 discretionary grant.

Applicants eligible for Section 3 funds may include states applying on behalf of local public bodies under their jurisdiction. During 1990 the Wisconsin Department of Transportation, Bureau of Transit, prepared a Section 3 grant application on behalf of 25 transit systems in the State, requesting $11 million in Section 3 capital assistance for capital projects totaling $14.7 million. The projects for which funding was sought included projects for both fixed-route bus systems in urbanized areas and for fixed-route

bus and shared-ride taxi systems in the non-urbanized areas of the State.

Section 8 Funds: Grants for technical studies are provided under Section 8. Activities funded under this section include studies related to the management, operations, capital requirements, and economic feasibility of urban public transportation projects; the preparation of engineering and architectural surveys, plans, and specifications; the evaluation of previously funded transit projects; and similar and related activities preliminary to, and in preparation for, the construction, acquisition, or improved operation of public transportation systems, facilities, and equipment. It is current federal policy to make all technical study grants on an 80 percent federal to 20 percent local matching basis, except for studies which address national emphasis areas identified by the Urban Mass Transportation Administration, which can be funded with 100 percent federal funds. Urban transit technical studies conducted as a part of the Regional Planning Commission's continuing land use-transportation study, such as this study for the City of West Bend, are funded in part with Section 8 funds.

Section 16 Funds: Capital grants are available under Section 16(b)(2) to equip an agency to meet the specialized transportation needs of the elderly and disabled. These grants are available only to private, nonprofit corporations providing coordinated specialized transportation services on an 80 percent federal to 20 percent local matching basis. This aid is provided to fill service gaps in areas where transit services for the general public do not operate or do not provide adequate transportation services for the elderly and disabled. The Wisconsin Department of Transportation administers the Section 16(b)(2) program in Wisconsin for the Urban Mass Transportation Administration. Recipients of these funds in the West Bend study area in the past have included The Threshold, Inc., and the West Bend Chapter of the American Red Cross.

Section 18 Funds: A new Section 18 was added to the Urban Mass Transportation Act of 1964 by the Surface Transportation Assistance Act of 1978. Section 18 created a public mass transportation assistance formula grant program for areas of each state other than the urbanized areas. Funds are apportioned to the governor of each state based on nonurbanized area population. Eligible recipients of these funds include state agencies, local public bodies, private transportation providers, and Indian reservations. The administration of the Section 18 program nationwide was transferred from the Federal Highway Administration to the Urban Mass Transportation Administration beginning in federal fiscal year 1984. Within the State of Wisconsin, the Wisconsin Department of Transportation administers the Section 18 program for the Urban Mass Transportation Administration and is the recipient of all Section 18 funds apportioned to the State.

The administrative rules established to administer the Section 18 program in Wisconsin allow the Department of Transportation to reserve up to 10 percent of the State's annual apportionment of Section 18 funds for administrative and technical assistance purposes. Technical assistance includes project planning, program development, management development, coordination of public transportation programs, and research the Department deems appropriate to promote effective means of delivering public transportation services in areas other than urbanized areas. The balance of the State's annual apportionment is available to support operating and capital assistance projects. The federal share of operating assistance projects under the program may not exceed 50 percent of the total system operating deficit. The federal share of capital assistance projects may not exceed 80 percent of total eligible capital project costs, except for projects which enhance accessibility for the elderly and disabled population to public transportation services beyond that which is required by federal law. Such projects benefitting elderly and disabled persons are eligible for up to 95 percent federal funding. To ensure the best use of the limited amount of Section 18 assistance available, projects requesting Section 18 capital assistance are considered for funding by the Wisconsin Department of Transportation in the following order of priority:

1. Projects to replace vehicles operated by existing systems;
2. Projects to initiate a public transportation service;
3. Projects to replace maintenance and storage facilities of existing systems;
4. Projects to expand the number of vehicles operated by existing systems;

5. Projects to expand and rehabilitate maintenance and storage facilities of existing systems; and

6. Projects to purchase and install passenger amenities such as shelters and bus stop signs for existing systems.

Although the funds available under the Section 18 program are authorized for use for both operating and capital assistance projects, the current policy of the Wisconsin Department of Transportation in administering the Section 18 program in the State is to maximize the use of available funds for operating assistance. Consequently, only funds not needed for operating assistance are made available for capital assistance projects. Since 1988, the amount of Section 18 funds available to Wisconsin has not been sufficient to provide the full 50 percent federal share allowed under the Section 18 program to eligible transit systems for operating deficits. For 1990, Section 18 operating assistance funds were available to cover only 34.3 percent of the operating deficit of each eligible transit system. Although the statewide allocation of Urban Mass Transportation Administration Section 18 funds has increased slightly, from about $1,753,000 in 1990 to about $1,821,700 in 1991, the Department of Transportation estimates that these funds will be sufficient to cover only about 29 percent of transit system operating deficits in 1991, due primarily to inflationary increases in the operating expenses of eligible transit systems. Inasmuch as the current Section 18 funds available are not sufficient to fund the full 50 percent of operating deficits allowed under the Section 18 program, no funds are currently available for capital assistance projects under the Section 18 program. The Wisconsin Department of Transportation has attempted to satisfy the immediate capital assistance needs of transit systems which would otherwise use Section 18 funds by including capital projects for these systems in a Section 3 capital assistance grant which it prepared during 1990.

UMTA Administrative Regulations: The availability of federal funds under the previously described Urban Mass Transportation Act of 1964, as Amended, is restricted by several administrative regulations. Below are the more important of these regulations which are relevant to the use of federal urban transit assistance funds in the West Bend area:

1. Each applicant for Urban Mass Transportation Administration Section 3 or Section 18 capital assistance funds, and applicants for Section 18 operating assistance funds who are first-time applicants or who are proposing significant changes in transit service levels, must hold a public hearing on the proposed project. This hearing is to be held to give parties with significant social, economic, or environmental interests an adequate opportunity to publicly present their views on the project.

2. When federal funds provide a portion of the cost of a project, the remaining portion must come from sources other than federal funds, with the exception of funds from federal programs other than Urban Mass Transportation Administration programs certified to be eligible as local-share funds. Thus funds received by recipients pursuant to service agreements with state or local social service agencies or a private social service organization may be considered, even though the original source of such funds may have been another federal program.

3. All applicants for federal funds must certify that they will comply with the provisions of Title VI of the Civil Rights Act of 1964 regarding nondiscrimination on the grounds of race, color, or national origin in the provision of the public transit services for which federal funding will be used.

4. Public transportation programs and activities receiving federal financial assistance must comply with Section 504 of the Rehabilitation Act of 1973 regarding nondiscrimination on the basis of handicap. Recipients of Section 18 funds must certify that special efforts are being made in their transit service area to provide transportation usable by disabled persons, including wheelchair users and semiambulatory persons. The transportation service resulting from these special efforts must be reasonable in comparison to the transportation provided to the general public and must meet a significant fraction of the actual transportation needs of disabled persons within a reasonable time. First-time recipients of Section 18 funds are required to provide an opportunity for disabled individuals and groups to com-

ment on the present and proposed special efforts being made under this certification. In addition, each recipient is required to provide the service called for under its certification at all times to all eligible disabled persons.

5. All recipients of federal funds must comply with current Urban Mass Transportation Administration regulations issued to implement the requirements of the Americans with Disabilities Act of 1990. These requirements can be briefly summarized as follows:

   a. For operators of fixed-route bus systems, the regulations require that all new vehicles purchased or leased for the transit system on or after August 25, 1990, must be accessible to wheelchair-bound individuals. Transit operators acquiring used vehicles on or after the above date must make demonstrable efforts to acquire accessible used equipment. Vehicles which will be rehabilitated or reconstructed after the above date must, to the maximum extent practical, be made accessible to wheelchair-bound individuals. In addition to requiring the acquisition of only accessible vehicles for use in providing fixed-route bus services, the regulations also require the provision of supplemental paratransit services for disabled individuals unable to use the accessible vehicles operated in regular fixed-route bus service.

   b. For transit systems providing demand-responsive service, all vehicles purchased or leased for use on the system on or after the above date must be accessible to wheelchair-bound individuals unless the system, when viewed in its entirety, provides a level of service to individuals with disabilities which is equivalent to the service which it provides to individuals without disabilities. A demand-responsive system would be deemed to provide equivalent service if the service available to individuals with disabilities is provided in the most integrated setting feasible and is equivalent to the service provided to other individuals with respect to the following service characteristics: 1) response time; 2) fares; 3) geographic area of service; 4) hours and days of service; 5) restrictions based on trip purpose; 6) availability of information and reservations; and 7) any constraints on capacity or service availability.

   These regulations also set forth circumstances under which waivers from the above requirements would be considered by the Urban Mass Transportation Administration. Any waiver granted, however, would be temporary and pertain to a particular transit vehicle procurement, lease, or service contract. The regulations also indicate that private transit operators contracting with a public body to provide a specific transit service would be required to meet the same requirements imposed upon the public body under the regulation.

6. The applicant must certify that it will comply with current Urban Mass Transportation Administration regulations pertaining to the provision of charter service by federally funded public transportation operators. In this respect, if an applicant desires to provide charter service using federally funded equipment or facilities, he/she must first determine if there are private charter operators willing and able to provide the charter service the applicant desires to provide. To the extent that there is at least one such private operator, the applicant is prohibited from providing charter service using Urban Mass Transportation Administration-funded equipment or facilities. Certain exceptions to the general prohibition on providing charter service are allowed, including one for recipients in nonurbanized areas. The Urban Mass Transportation Administration allows recipients in nonurbanized areas to petition for an exception if the charter service that would be provided by willing and able private charter operators would result in a hardship on the customer. Any charter service that an applicant provides under any of the above conditions must be incidental to regular transit service.

7. No federal assistance may be provided for the purchase or operation of buses unless the applicant agrees not to engage in school bus operations for the exclusive

transportation of students and school personnel in competition with private school bus operators. This rule does not apply, however, to "tripper" service provided for the transportation of school children along with other passengers by regularly scheduled bus service at either full or reduced rates.

8. No federal financial assistance may be provided until fair and equitable arrangements have been made as determined by the Secretary of Labor to protect the interests of employees affected by such assistance. Such arrangements must include provisions protecting individual employees against a worsening of their positions with respect to their employment, collective bargaining rights, and other existing employee rights, privileges, and benefits. Section 18 recipients are required to agree to a special agreement specifying such provisions.

9. No federal assistance may be provided for public transit projects unless measures have been taken to encourage increased private-sector involvement in the public transit project. To implement this policy, federal regulations require recipients of Urban Mass Transportation Administration funds to develop and submit to the State, as the administrator of the Urban Mass Transportation Administration Section 18 program, a process for the consideration of private- enterprise participation and private operation of public transportation services and support services to the maximum extent feasible. This process must include provisions for:

   a. Notice to, and early consultation with, private providers during the development of new or restructured service, as well as in the periodic reexamination of existing service;

   b. Periodic examination, at least once every three years, of the transit system to determine if it could be more efficiently operated by a private enterprise;

   c. A description of how new and restructured services will be evaluated to determine if they could be more effectively provided by private- sector operation under a competitive bidding process;

   d. The use of costs as a factor in the decision concerning private or public operation of transit services; and

   e. A dispute-resolution process which affords all interested parties an opportunity to object to the initial decision made by the local public body.

10. No federal assistance may be provided until all eligible disadvantaged business enterprises (DBEs) have been afforded the opportunity to fairly and equitably participate in any proposed public transit project. The applicant must provide assurance of its adherence to meeting specified goals concerning what proportion of work available to outside contractors has been awarded to DBE contractors.

11. If an applicant for Urban Mass Transportation Administration Section 18 funds contracts with a transit operator for the provision of eligible public transit service rather than providing the service personally, said applicant must follow a competitive bid process in selecting the contract service provider. The recipient of funds is required to solicit competitive bids for each of its eligible public transit service contracts not less than once every five years.

12. Recipients of federal capital assistance must assure that the capital equipment and facilities acquired with federal funds will be owned by a public body and used in a manner consistent with the public transportation service for which it was acquired during the useful life of the capital equipment or facilities. In the event that such equipment or a facility is sold or otherwise devoted to another use during its useful life, the recipient may be required to refund a proportionate share of the federal funds based on the value of the equipment or facilities at the time of sale.

13. Recipients of federal funds must agree that, as a condition of receiving federal financial assistance, they shall not discriminate against any employee or applicant for employment because of race, color,

religion, sex, or national origin, and that they shall take affirmative action to ensure that applicants are employed and that employees are treated without regard to their race, color, religion, sex, or national origin during employment.

STATE LEGISLATION

Two types of legislation which affect the provision of public transportation services have been enacted by the State of Wisconsin: 1) legislation authorizing financial assistance for the provision of general public and specialized transportation services, and 2) legislation involving the administrative regulations and controls governing the establishment and operation of transit services. Notably, the State of Wisconsin currently has no legislation which authorizes a program to provide capital assistance to public transit systems.

Financial Assistance

Urban Public Transportation Assistance Programs: Financial assistance provided by the State for urban public transportation includes indirect aid, principally in the form of tax relief, and direct aid in the form of operating subsidies and planning grants. Indirect aid to urban public transit systems in Wisconsin was introduced in 1955 on the basis of the findings and recommendations of the 1954 Governor's Study Commission on Urban Mass Transit. The most significant of the 1955 measures is Section 71.18 of the Wisconsin Statutes, which provides a special method that can be used by privately owned urban mass transit organizations to calculate their state income tax to encourage urban bus systems to invest profits in new capital facilities and stock. Other Wisconsin Statutes giving urban public transportation systems tax relief are:

1. Section 76.54, which prohibits cities, villages, and towns from imposing a license tax on vehicles owned by urban transit companies.

2. Section 77.54(5), which excludes buses, spare parts and accessories, and other supplies and materials sold to common carriers for use in providing urban mass transportation services from the general sales tax imposed on goods and services.

3. Section 78.01(2)(d), which excludes vehicles engaged in urban public transportation from the fuel tax imposed upon motor fuel—such as diesel fuel—specifically used in transit vehicle operation.

4. Section 78.40(2)(c), which excludes vehicles engaged in urban public transportation from the fuel tax imposed upon special fuel—such as propane gas—specifically used in transit vehicle operation.

5. Section 78.75(1)(a), which allows taxi companies to obtain rebates of the tax paid on motor fuel or special fuel.

6. Section 341.26(2)(h), which requires that each vehicle engaged in urban public transportation service be charged an annual registration fee of $1.00 unless a municipal license has been obtained for the vehicle.

Direct financial aid in the form of transit operating assistance is currently available under the Wisconsin urban mass transit operating assistance program. The program was first established under the 1973 State Budget Act, which appropriated a total of $5 million in general-purpose revenue funds for transit operating assistance during the 1973-1975 biennium. The program has continued to be funded at increasing levels in every subsequent budget biennium, most recently being appropriated a total of $98.3 million for the 1989-1991 biennium under the 1989 State Budget Act. The program is authorized under Section 85.20 of the Wisconsin Statutes, and is currently funded by the Wisconsin Transportation Fund—a multi-purpose special revenue fund created to provide funding for transportation-related facilities and modes, with revenues derived from transportation users primarily through taxes on motor fuels and vehicle registration fees.

Under the program, local public bodies in an urban area that provide financial assistance to, or that actually operate, a public transit system are eligible for reimbursement by the Wisconsin Department of Transportation for a fixed portion of the total annual operating expenses of the transit system. Local public bodies are defined to include counties, municipalities or towns, or agencies thereof; and transit or transportation commissions or authorities. An urban area has been defined to include any area that includes a

city or village having a population of 2,500 or more that is appropriate, in the judgment of the State, for an urban public transit system. State aids are available to cover up to 38.5 percent of an eligible transit system's total operating expenses, but no more than the audited nonfederal share of the operating deficit. Eligible transit systems under the program include those providing fixed-route transit service and those providing shared-ride taxicab service. Eligible expenses can include the costs of user-side subsidies provided by eligible transit systems to disabled persons and to the general public in urban areas which are served exclusively by shared-ride taxi systems. Applicants providing fixed-route transit service are required to provide a local match equal to 20 percent of the state aid received—7.7 percent of system operating expenses—as a condition for receiving state funds under the program. Funds from federal and state sources, farebox revenues, and in-kind services cannot be used as local matching funds. Within Washington County, the City of Hartford receives state transit operating assistance to support the operation of its shared-ride taxicab system.

Like the federal funds described previously in this chapter, the availability of state urban mass transit operating assistance funds is restricted by several administrative regulations. The more important of these restrictions for operating assistance projects are described below.

1. No city or village will be eligible for state aid under the program to support the operation of a municipal bus system unless the system is approved by action of the governing body and by referendum vote of its electorate. Such approval is not required in order for state aid to be used for shared-ride taxicab services.

2. The operating assistance project must be for passenger transportation service with at least two-thirds of the service being provided within the boundaries of an urban area.

3. The public transportation service must be provided on a regular and continuing basis and must be open to the general public. Service provided exclusively for a particular subgroup of the general public—such as the elderly, disabled, or school children—is not eligible.

4. Fares must be collected for the project transportation service in accordance with established fare tariffs. Transit systems are also required to provide a reduced fare program for elderly and disabled persons during nonpeak hours of operation unless the system is a shared-ride taxi system.

5. Commitments of state funds for operating assistance contracts are based upon projections of operating revenues and operating expenses for a calendar year contract period. Contracts between the Wisconsin Department of Transportation and recipients of state aids may not exceed one year in duration.

6. Transit systems are required to prepare a "transit management plan" which describes for the contract year how the transit system will be operated, the amount of service which will be provided, the fares to be charged, steps to be taken to make the system operate more efficiently and effectively, and the procedures to be used for counting passenger trips on the transit system. Projections of operating revenues and expenses must be based upon the approved one-year management plan governing the operation of the participating transit system during the contract period.

7. Each participating transit system, except privately owned systems with which a local public body contracts for services on the basis of competitive bids, must allow the Department of Transportation to audit their financial records in order for the Department to determine the actual operating expenses and revenues, and the amount of state aid to which the transit system is entitled during the contract period. For privately owned systems, as noted above, the Department will conduct audits to determine compliance with service contracts, and not financial audits of the private provider's business records.

8. Recipients must annually submit to the Department of Transportation a four-year program of transit projects directed toward maintaining or improving the transit service provided by the system. The four-year program must include descriptions of any proposed changes in service levels or fares; capital project needs; and projections

of ridership, the amount of service provided, operating expenses and revenues, and the public funding requirement.

9. Each recipient must establish annually service performance goals for a four-year period and assess the effectiveness of its transit system in relation to those goals. At a minimum, systemwide goals must be established for the following performance indicators:

   a. Operating expenses per total vehicle mile;

   b. Operating expenses per revenue passenger;

   c. Operating expenses per platform vehicle hour;

   d. The proportion of operating expenses recovered through operating revenues;

   e. Revenue passengers per revenue vehicle mile.

   f. Revenue passengers per service area population.

10. All urban transit systems participating in the program must submit to a management performance audit conducted by the Department of Transportation at least once every five years.

The most recent additions to the state transit assistance programs for the general public include an employment transit assistance program—more commonly known as the "Job Ride" program—and a transit corridor studies grant program. The Job Ride program was originally established as a pilot demonstration project during the 1987-1989 budget biennium to test alternative methods of providing long distance, job-related transit service across political boundaries. More specifically, the program's purpose was to demonstrate alternatives to traditional fixed-route transit service which could be used to serve "reverse commute" travel by unemployed residents of the Milwaukee central city who were seeking jobs in outlying areas of Milwaukee County or in adjacent counties. The original pilot program was jointly administered and funded by the Wisconsin Departments of Transportation and Industry, Labor and Human Relations, with each agency sharing equally in the $200,000 program costs. The 1989 State Budget Act appropriated $600,000 to continue this program during the 1989-1991 biennium, and attached several requirements, including that all jobs accessed under the program must pay at least $4.00 an hour; that fares cannot exceed $2.00 per one-way trip; that employers must pay at least 50 percent of the cost of participating employees; and that only local governments or private organizations that provide access to nontemporary employment would be eligible grant recipients. State grants available under the program will fund up to 80 percent of project costs.

A transit corridor study grant program was also created under the provisions of the 1989 State Budget Act. Under the program, technical assistance grants will be provided to study the need for, and alternative forms of, fixed-guideway urban transit systems to serve inter- and intra-urban transportation corridors in southern Wisconsin. Eligible applicants for technical assistance grants under the program will include the central city of an urbanized area as designated by the U. S. Bureau of the Census; a county containing an urbanized area; metropolitan planning organizations, such as regional planning commissions; and private consulting firms. Studies of transit corridors both within an urbanized area or linking contiguous urbanized areas, and origin-destination studies undertaken by regional planning commissions, will be considered as projects eligible for state assistance under the program. A total of $1.9 million was appropriated for the transit corridor study grant program for the 1989-1991 biennium.

Specialized Transit Assistance Programs: Two funding programs for elderly and disabled specialized transportation services were established under the 1977 State Budget Act. The programs are authorized under Section 85.21 and Section 85.22 of the Wisconsin Statutes and are administered by the Wisconsin Department of Transportation.

Section 85.21 authorizes the provision of financial assistance to counties in the State for specialized transportation programs serving elderly and disabled persons who would not otherwise have an available or accessible method of transport. A proportionate share of funds under this state program is allocated to each county in Wisconsin based on the estimated percent of the total statewide elderly and dis-

abled population residing in the county. In general, counties may use these funds for either operating assistance or capital projects to directly provide transportation services for the elderly and disabled; to aid other agencies or organizations which provide such services; or to create a user-side subsidy program through which the elderly and the disabled may purchase transportation services from existing providers at reduced rates. Counties must provide a local match equal to 20 percent of their allocations in order to receive their allocations. In addition, a county may hold its allocated aid in trust for the future acquisition or maintenance of transportation equipment.

Transportation services supported by funds available under this program may, at the direction of the county, carry members of the general public on a space-available basis, provided that priority is given to serving elderly and disabled patrons. In addition, Section 85.21 requires that a co-payment, or voluntary donation, be collected from users of the specialized transportation service, and that a means for giving priority to medical, nutritional, and work-related trips be adopted if the transportation service is unable to satisfy all of the demands placed on it. Funding for this program during the 1989-1991 biennium was established at $8.3 million by the 1989 State Budget Act. Washington County currently participates in this program to help support several specialized transportation projects administered by the Washington County Office on Aging. The 1990 budget for the specialized transportation program administered by the Office on Aging included approximately $51,800 allocated to Washington County under this state program. The Office on Aging specialized transportation program includes two projects—an advance-reservation, door-to-door transportation service and a taxi-based user-side subsidy program—which provide transportation to elderly and disabled residents of the City of West Bend.

Under Section 85.22 of the Wisconsin Statutes, the State can supply private, nonprofit organizations that provide transportation services to the elderly and disabled with financial assistance for the purchase of capital equipment. This program represents the state counterpart to the previously referenced federal aid program authorized under Section 16(b)(2) of the Urban Mass Transportation Act of 1964, as amended. The state aids available under this program are distributed to applicants in the State on an 80 percent combined state-federal and 20 percent local matching basis. The program is administered jointly with the federal Section 16(b)(2) program by the Wisconsin Department of Transportation. In all cases, the applicant is responsible for providing the 20 percent local share of capital project costs. A total of$1.3 million was appropriated for the program during the 1989-1991 biennium by the 1989 State Budget Act.

Administrative Regulations and Controls

In addition to providing financial assistance to urban public transit systems in the State, the Wisconsin Statutes provide organizational alternatives to counties and municipalities for the operation of urban public transit systems. The more important State legislation which defines municipal governmental powers relating to the operation of a public transit system is outlined below:

1. Municipal Contract with Private Transit System Operator—Section 66.064 of the Wisconsin Statutes permits a city or village served by a privately owned urban public transit system to contract with the private owners for the leasing, public operation, joint operation, subsidizing, or extension of service of the system.

2. Municipal Operation of Transit System—Section 66.065(5) of the Wisconsin Statutes provides that any city or village may, by action of its governing body and upon a favorable referendum vote, own, operate, or engage in an urban public transit system. This Statute permits a city or village to establish a separate department to undertake transit operation under municipal ownership or to expand an existing city department to accommodate the responsibility of municipal transit operation.

3. City Transit System—Section 66.943 of the Wisconsin Statutes provides for the formation of a city transit commission composed of not fewer than three members appointed by the mayor and approved by the city council. No member of the commission may hold any other public office. The Commission is empowered to "establish, maintain, and operate a bus system, the major portion of which is located in, or the major portion of the service is supplied to,

such a city." Institution of the urban transit system is subject to the limitations of Section 66.065(5) of the Wisconsin Statutes discussed above. The city transit commission is permitted to extend the urban transit system into adjacent territory beyond the city, but not more than 30 miles from the city limits. In lieu of directly providing transportation services, the transit commission may contract with a private organization for such services.

4. City Transit-Parking Commission—Sections 66.068, 66.079, and 66.943 of the Wisconsin Statutes provide for the formation of city transit and parking commissions. A combined transit-parking commission may be organized as a single body under this enabling legislation and not only may have all the powers of a city transit commission, but may also be empowered to regulate on-street parking facilities and own and operate off-street facilities as well.

5. Municipal Transit Utility—Sections 66.066 and 66.068 of the Wisconsin Statutes provide for the creation of a municipal transit utility. The statutes provide for the formation of a management board of three, five, or seven commissioners elected by the city council or village or town board to supervise the general operation of the utility. Institution of the urban transit system as a public utility is subject to the limitations of Section 66.065(5) of the Wisconsin Statutes. In cities with populations of less than 150,000, the city council may provide for the operation of the utility by the board of public works or by another municipal officer in lieu of the above commission.

6. Joint Municipal Transit Commission—Section 66.30 of the Wisconsin Statutes permits any municipality to contract with another municipality or municipalities for the receipt or furnishing of services or the joint exercise of any power or duty authorized by statute. A "municipality" is defined, for purposes of this law, as any city, village, town, county, or regional planning commission. Thus, the law would permit any county, city, or village to contract with any other county, city, or village to receive or furnish transit services or even to establish a joint municipal transit commission.

State legislation also provides for the formation of certain special public transit districts and authorities. Section 66.94 of the Wisconsin Statutes permits the establishment of a metropolitan transit authority having the legal power to acquire, operate, and maintain a public transportation system in any county having a population of 125,000 or more. A public transportation system is defined to include subways, railways, and buses. The district to be served by the transit authority must have a total population of 100,000 or more. Significantly, authorities created under this enabling legislation do not have taxing powers.

LOCAL LEGISLATION

Existing transit legislation at the local level is confined to the regulation of taxicab services in the City of West Bend. Sections 12.14 and 12.15 of the City of West Bend municipal code govern the license and operations of taxicab companies in the City of West Bend. Included in the ordinances are provisions for the licensing of each taxicab company by the City, as well as licensing requirements for taxicab drivers. The ordinances require vehicles to be regularly maintained and inspected by city officials and requires taxicab companies to carry set minimum amounts of insurance. The taxicab ordinance restricts the provision of shared-ride taxi service unless permission is given by the first passenger served. The ordinance also prohibits the pick-up and delivery of passengers along established routes of common motor carriers unless specifically requested and dispatched to do so. Importantly, the restriction on shared-ride operation would limit the eligibility of the existing taxicab service in the City of West Bend for federal or state financial assistance.

SUMMARY

This chapter has summarized pertinent federal and state legislation and regulations as they apply to the provision of financial assistance for public transportation service, and as they apply to transit organization and operation. A summary of the major federal and state programs through which financial assistance for transit

Table 26

SUMMARY OF MAJOR FEDERAL AND STATE TRANSIT ASSISTANCE PROGRAMS

Sponsoring Agency	Program Name	Type of Transit Assistance	Eligible Applicants	Description of Major Program Elements
U. S. Department of Transportation, Urban Mass Transportation Administration (UMTA)	Section 3	Capital	State or local public agencies within urbanized[a] or nonurbanized areas	Federal funds made available at the discretion of the Secretary of the U. S. Department of Transportation to cover up to 75 percent of total costs of eligible projects, including those for: construction or extension of new fixed-guideway systems; rail system modernization; and bus and bus-related equipment and construction projects
	Section 8	Planning	State or local public bodies and agencies; metropolitan planning organizations; public corporations, boards, and commissions; and publicly owned transit operations	Federal funds made available to cover up to 100 percent of the costs of projects for the planning, engineering, design, and evaluation of public transportation projects and for other technical studies
	Section 16(b)(2)	Capital	Private, nonprofit corporations	Federal funds made available to cover 80 percent of the costs of capital equipment used in providing specialized transportation service to elderly or disabled persons
	Section 18	Operating/capital	State agencies, local public bodies, private transportation providers, and Indian reservations within nonurbanized areas	Operating: Federal funds made available to cover up to 50 percent of the total operating deficit of eligible transit services[b] Capital: Federal funds made available to cover up to 80 percent of capital project costs[c]
Wisconsin Department of Transportation, Bureau of Transit	Urban mass transit operating assistance program	Operating	Counties, municipalities or towns, or agencies thereof; and transit or transportation commissions or authorities	State funds made available to eligible applicants within State in urban areas having a population of 2,500 or more to cover up to 38.5 percent of an eligible transit system's total operating expenses
	Specialized transportation assistance program for counties	Operating/capital	Counties	State funds made available to counties within State on a formula basis for use for either operating or capital assistance projects to directly provide transportation for elderly or disabled persons; to aid other agencies or organizations which provide such services; or to create a user-side subsidy program for elderly or disabled persons to purchase transportation from other providers
	Specialized transportation assistance program for private nonprofit corporations	Capital	Private, nonprofit corporations	State funds made available to cover 80 percent of the costs of capital equipment used in providing specialized transportation services to elderly or disabled persons
	Job Ride	Operating	Local governments or private organizations	State funds made available to eligible applicants that provide transportation to nontemporary employment sites to cover up to 80 percent of costs of projects designed to serve reverse commuter travel by unemployed residents of the Milwaukee central city seeking jobs in outlying areas
	Transit corridor studies	Planning	Central city of an urbanized area; county within an urbanized area; metropolitan planning organizations; consulting firms	State funds made available for technical studies examining the need for, and alternative forms of, fixed-guideway urban transit systems to serve inter- and intra-urban transportation corridors within southern Wisconsin

[a] *Urban areas having a central city of 50,000 or more population, as designated by the U. S. Bureau of the Census.*

[b] *Due to the limited amount of Section 18 funds allocated annually to Wisconsin, it was estimated that the Section 18 program within Wisconsin would be able to cover only 29 percent of the total operating deficits of participating transit systems in 1991.*

[c] *Due to the limited amount of Section 18 funds allocated annually to Wisconsin, the Section 18 program within Wisconsin maximizes the use of available funds for operating assistance. Inasmuch as the amount of Section 18 funds available is not sufficient to fund the full 50 percent of operating deficits allowed under the program, no funds are currently available for capital projects.*

Source: SEWRPC.

services is currently or potentially available is presented in Table 26.

The federal government is a major source of financial assistance for public transit services through four major programs relevant to the City of West Bend. The U. S. Department of Transportation, Urban Mass Transportation Administration, administers these programs, which were made available under the Urban Mass Transportation Act of 1964, as amended. Financial assistance for public transit systems is currently available under Section 3, primarily for major capital purchase projects and rapid transit system construction costs; under Section 8 for planning assistance; and under Section 18 on a formula grant basis to recipients in nonurbanized and rural areas for use toward operating assistance and capital equipment purchases. In addition, Section 16(b)(2) provides financial assistance for the purchase of vehicles and equipment to private nonprofit agencies or corporations that provide specialized transportation to elderly and disabled individuals.

The Wisconsin Statutes provide several programs for financing public transportation services. The Wisconsin Department of Transportation administers these programs, which provide financial assistance for both general and specialized transportation, including: an urban transit operating assistance program which provides operating assistance to communities with populations of more than 2,500 persons supporting general public transit systems; a specialized transportation assistance program which provides financial assistance to counties for elderly and disabled transportation projects; and a specialized transit assistance program which, together with funds available under the UMTA Section 16(b)(2) program, provides capital assistance to private, nonprofit organizations providing specialized transportation services.

The Wisconsin Statutes also provide several organizational alternatives to municipalities for the operation of public transit services. These alternatives include: contracting for services with a private operator; public ownership and operation of a municipal utility; and public ownership and operation by a single or joint municipal transit commission.

Local legislation specifically pertaining to transit service is limited to sections of the West Bend municipal code governing the licensing and operation of taxicab service. The taxicab ordinance for the City of West Bend restricts taxicab operators to providing exclusive-ride service to taxicab patrons unless patrons give permission to share the vehicle with other patrons. This restriction would limit the eligibility of the existing taxicab service in the City for federal or state financial assistance.

Chapter VII

ALTERNATIVE TRANSIT SYSTEM DEVELOPMENT PLANS

INTRODUCTION

Previous chapters of this report have described the land use and the travel patterns of the City of West Bend study area along with the existing public transit services available to serve those patterns. This information is intended to be used in the development and evaluation of alternative transit system development plans for the City of West Bend. The evaluation of the developed alternatives is intended to identify those alternatives that are operationally and economically feasible as well as politically acceptable. From among such alternatives a recommended plan can be selected which can clearly identify both the operational characteristics and financial requirements of the recommended transit system. This chapter describes the alternative transit system development plans considered and the recommendations of the study Advisory Committee concerning the plan selected for adoption and implementation.

In order to evaluate fully the feasibility of providing public transit service in the West Bend study area, a number of alternative management structures and operational techniques for providing transit service were examined and are described in this chapter. Presented first is a description and evaluation of several alternative management structures under which publicly supported transit service could be provided in the study area. This is followed by a description and an evaluation of alternative transit service plans. Each alternative transit service plan is described in terms of operating characteristics, ridership projections, capital and operating costs, and public funding requirements.

In developing the alternative management structures and transit service plans for the West Bend area, the experiences of other publicly supported transit systems in the State of Wisconsin were carefully considered. There are currently 48 publicly supported transit systems operating in the State, including 26 urban bus systems and 22 shared-ride taxicab systems. Information on the projected 1990 operating characteristics, ridership, and financial performance of eight of the urban systems providing fixed-route bus service in small urban areas in the State is presented in Tables 27 and 28. Similar information for the 22 shared-ride taxicab systems serving small urban areas in the State is presented in Tables 29 and 30. The information presented in these tables can be compared with the proposed operating characteristics and projected performance of the alternative transit services considered for the West Bend area.

ALTERNATIVE MANAGEMENT STRUCTURES

The cost of providing an adequate and effective level of public transit service depends in part on the ownership and management structure of the transit system. While Chapter VI of this report has shown that there are several alternative management structures under which publicly supported transit service could be provided in the study area, only three were found to have potential for more detailed consideration: 1) municipal ownership and operation of the transit system; 2) municipal ownership of the transit system and operation through a competitively awarded contract with a private management firm; and 3) private ownership of the transit system and operation through a competitively awarded contract with a private transit operator. Since any of these management structures could be used under any of the alternative transit service plans calling for the establishment of a new transit system, they are here considered separately from those alternatives.

Description and Evaluation of Management Alternatives

A description of the significant differences between the alternative management structures considered for the provision of publicly supported transit services in the West Bend area is presented in Table 31. Table 32 presents a comparative evaluation of the alternative management structures, listing the advantages and disadvantages identified for each alternative.

The first management alternative considered would provide for direct municipal ownership and operation of any publicly supported transit system established to serve the City of West

Table 27

COMPARISON OF OPERATING CHARACTERISTICS FOR WISCONSIN SMALL URBAN FIXED-ROUTE BUS SYSTEMS: 1990

Urban Area	Ownership/ Management	Number of Bus Routes (weekday base service)	Scheduling Technique	Days and Hours of Operation			Service Frequency (minutes)				Base Adult Cash Fare	Special School Service	Number of Vehicles in Fleet by Seating Capacity[a]				
							Weekdays										
				Weekdays	Saturdays	Sundays/ Holidays	Peak Period	Off-Peak Period	Saturdays	Sundays/ Holidays			12-25	26-29	30-39	40-49	Total
Beloit	Public with public employees	5	Cycle	5:20 a.m. to 5:20 p.m.	10:00 a.m. to 4:00 p.m.	No service	40	40	40	--	$0.60	No	--	--	5	7	12
Fond du Lac	Public with public employees; contract operation of one route by private operator	7	Cycle	6:10 a.m. to 6:10 p.m.	8:10 a.m. to 5:15 p.m.	No service	30	30	60	--	$0.60	Yes	--	--	12	--	12
Manitowoc	Public with public employees	5	Cycle	6:15 a.m. to 5:15 p.m.	9:15 a.m. to 1:45 p.m.	No service	30/60	30/60	30/60	--	$0.60	Yes	--	--	10	--	10
Merrill	Public with public employees	3	Route deviation	7:00 a.m. to 5:00 p.m.	No service	No service	30	30	--	--	$0.50-$1.00[b]	Yes	--	--	4	--	4
Rice Lake	Public with public employees	2	Cycle	6:15 a.m. to 5:45 p.m.	8:15 a.m. to 5:45 p.m.	10:15 a.m. to 4:15 p.m.[c]	30	60	60	60[c]	$0.50	Yes	3	--	1	1	5
Stevens Point	Public with public employees	5	Cycle	6:45 a.m. to 5:15 p.m.[d]	9:00 a.m. to 5:15 p.m.	No service	30/60	30/60	30/60	--	$0.75	No	1	6	--	1	8
Superior	Public with private management firm[e]	6	Cycle	5:50 a.m. to 7:30 p.m.	6:10 a.m. to 7:00 p.m.	No service	30	60	30/60	--	$0.75	No	--	--	8	--	8
Watertown	Public with private management firm	6	Cycle	6:00 a.m. to 6:00 p.m.	8:00 a.m. to 6:00 p.m.	No service	40[f]	60	60	--	$1.00	No	--	--	6	--	6

[a] *Excludes vehicles used in providing specialized transportation services for disabled persons.*

[b] *Base adult fares range from $0.50 per ride for fixed-route service to $1.00 per ride for deviation from fixed route.*

[c] *No service provided on holidays.*

[d] *On Fridays, service is provided until 8:15 p.m.*

[e] *The City of Superior contracts for service from the Duluth Transit Authority, which is operated by a private management firm.*

[f] *Service provided at 40-minute headways only during the morning peak period and at 60-minute headways at all other times.*

Source: Wisconsin Department of Transportation, Bureau of Transit; and SEWRPC.

Table 28

COMPARISON OF OPERATING AND FINANCIAL PERFORMANCE OF WISCONSIN SMALL URBAN FIXED-ROUTE BUS SYSTEMS: 1990 (PROJECTED)

Urban Area	Service Area Population[a]	Service Provided		Service Productivity				Service Cost				Service Effectiveness			
		Annual Revenue Vehicle Miles	Annual Revenue Vehicle Hours	Annual Revenue Passengers	Annual Rides Per Capita	Annual Rides per Vehicle Mile	Annual Rides per Vehicle Hour	Annual Operating Expenses	Annual Operating Revenues	Annual Operating Deficit		Total Expense per Passenger	Total Revenue per Passenger	Total Deficit per Passenger	Farebox Recovery Rate[b] (percent)
										Total	Local Share				
Beloit	35,100	247,600	19,100	240,300	6.8	0.97	12.6	$824,100	$144,000	$680,100	$154,800	$3.43	$0.60	$2.83	17.5
Fond du Lac[c]	41,700	367,600	30,900	326,500	7.8	0.89	10.6	960,100	144,800	815,300	166,100	2.94	0.44	2.50	15.1
Manitowoc[d]	46,100	249,600	16,500	337,200	7.3	1.35	20.4	682,500	115,300	567,200	109,900	2.02	0.34	1.68	16.9
Merrill	10,000	59,600	5,800	64,000	6.4	1.07	11.0	189,700	45,000	144,700	22,000	2.96	0.70	2.26	23.7
Rice Lake	8,100	77,500	6,000	77,000	9.5	0.99	12.8	164,300	22,100	142,200	30,200	2.13	0.28	1.85	13.5
Stevens Point[e]	26,000	188,700	15,400	134,600	5.2	0.71	8.7	580,100	73,800	506,300	109,400	4.31	0.55	3.76	12.7
Superior	26,900	218,700	14,200	178,200	6.6	0.81	12.5	615,200	86,600	528,600	136,400	3.45	0.48	2.97	14.1
Watertown	19,000	207,600	16,700	93,300	4.9	0.45	5.6	344,700	59,300	285,400	54,800	3.69	0.63	3.06	17.2

[a] *Based on 1989 population estimates from the Wisconsin Department of Administration.*

[b] *Represents the percentage of operating expenses recovered through operating revenues.*

[c] *Includes the Village of North Fond du Lac.*

[d] *Includes the City of Two Rivers.*

[e] *Includes the Villages of Whiting and Park Ridge.*

Source: Wisconsin Department of Transportation, Bureau of Transit; and SEWRPC.

Table 29

COMPARISON OF OPERATING CHARACTERISTICS FOR WISCONSIN SHARED-RIDE TAXICAB SYSTEMS: 1990

Urban Area	Ownership/Management	Days and Hours of Operation				Base Adult Cash Fare	Total Number of Vehicles in Fleet
		Weekdays	Saturdays	Sundays	Holidays		
Baraboo	Private with contract operation	5:30 a.m to 10:00 p.m.	5:30 a.m to 10:00 p.m.	5:30 a.m to 10:00 p.m.	5:30 a.m to 10:00 p.m.	$2.00	3
Beaver Dam	Private with contract operation	6:00 a.m to 10:00 p.m.	8:00 a.m to 5:00 p.m.	8:00 a.m to 5:00 p.m.	8:00 a.m to 1:00 p.m.	2.00	4
Berlin	Private with contract operation	7:30 a.m to 5:00 p.m.	No service	7:30 a.m to 12:00 p.m.	No service	2.00	1
Black River Falls	Private with contract operation	7:00 a.m to 10:00 p.m.[a]	7:00 a.m to 2:30 a.m.	7:00 a.m to 10:00 p.m.	No service	2.00	2
Chippewa Falls	Private with contract operation	5:00 a.m to 7:00 p.m.	5:00 a.m to 7:00 p.m.	5:00 a.m to 7:00 p.m.	No service	1.50	10
Fort Atkinson	Private with contract operation	6:30 a.m to 7:00 p.m.[b]	7:00 a.m to 2:00 a.m.	7:00 a.m to 4:00 p.m.	No service	2.00	5
Hartford	Public with public employees	6:00 a.m to 10:00 p.m.	9:00 a.m to 9:00 p.m.	9:00 a.m to 2:00 p.m.	No service	1.25 plus mileage	3
Jefferson	Private with contract operation	6:30 a.m to 6:30 p.m.	6:30 a.m to 6:30 p.m.	6:30 a.m to 1:00 p.m.	6:30 a.m to 12:00 p.m.	2.00	3
Marshfield	Private with contract operation	6:00 a.m to 12:00 a.m.	6:00 a.m to 12:00 a.m.	6:00 a.m to 12:00 a.m.	6:00 a.m to 12:00 a.m.	1.30	8
Platteville	Private with contract operation	6:00 a.m to 6:00 p.m.[c]	6:00 a.m to 6:00 p.m.	6:00 a.m to 6:00 p.m.	6:00 a.m to 6:00 p.m.	2.00	2
Portage	Private with contract operation	6:00 a.m to 1:00 a.m.	6:00 a.m to 1:00 a.m.	7:00 a.m to 7:00 p.m.	7:00 a.m to 7:00 p.m.	1.65	8
Reedsburg	Private with contract operation	6:00 a.m to 12:00 a.m.[a]	6:00 a.m to 2:00 a.m.	8:00 a.m to 6:00 p.m.	8:00 a.m to 6:00 p.m.	2.00	2
Rhinelander	Private with contract operation	24 hours/day	24 hours/day	24 hours/day	24 hours/day	2.50	4
Richland Center	Private with contract operation	6:00 a.m to 10:00 p.m.[a]	6:00 a.m to 12:00 a.m.	8:00 a.m to 10:00 p.m.	8:00 a.m to 6:00 p.m.	2.00	2
Ripon	Private with contract operation	6:00 a.m to 8:00 p.m.	7:00 a.m to 7:00 p.m.	8:00 a.m to 4:00 p.m.	No service	1.50	3
River Falls	Private with contract operation	7:00 a.m to 12:00 a.m.	8:00 a.m to 12:00 a.m.	8:00 a.m to 10:00 p.m.	No service	1.75	2
Shawano	Private with contract operation	6:00 a.m to 7:00 p.m.[c]	9:00 a.m to 7:00 p.m.	10:00 a.m to 7:00 p.m.	No service	1.50	2
Sparta	Private with contract operation	6:00 a.m to 10:00 p.m.[b]	8:00 a.m to 2:00 a.m.	8:00 a.m to 6:00 p.m.	8:00 a.m to 6:00 p.m.	2.00	2
Stoughton	Private with contract operation	6:30 a.m to 7:00 p.m.	6:30 a.m to 7:00 p.m.	6:30 a.m to 12:00 p.m.	6:30 a.m to 12:00 p.m.	1.50	2
Waupaca	Private with contract operation	7:30 a.m to 6:00 p.m.	8:30 a.m to 12:00 p.m.	8:30 a.m to 4:00 p.m.	No service	2.25	3
Whitewater	Private with contract operation	7:00 a.m to 11:00 p.m.[d]	7:00 a.m to 2:00 a.m.	7:00 a.m to 11:00 p.m.	No service	2.00	3
Wisconsin Rapids	Private with contract operation	5:00 a.m to 11:00 p.m.[a]	5:00 a.m to 1:00 a.m.	By reservation	No service	2.75	7

[a] *Friday service available same hours as Saturday.*

[b] *Friday service available until 2:00 a.m.*

[c] *Friday service available until 9:00 p.m.*

[d] *Thursday and Friday service available same hours as Saturday.*

Source: Wisconsin Department of Transportation, Bureau of Transit; and SEWRPC.

Table 30

COMPARISON OF OPERATING AND FINANCIAL PERFORMANCE OF WISCONSIN SHARED-RIDE TAXICAB SYSTEMS: 1990 (PROJECTED)

Urban Area	Service Area Population[a]	Service Provided		Service Productivity				Service Cost				Service Effectiveness			
		Annual Revenue Vehicle Miles	Annual Revenue Vehicle Hours	Annual Revenue Passengers	Annual Rides Per Capita	Annual Rides per Vehicle Mile	Annual Rides per Vehicle Hour	Annual Operating Expenses	Annual Operating Revenues	Annual Operating Deficit		Total Expense per Passenger	Total Revenue per Passenger	Total Deficit per Passenger	Farebox Recovery Rate[b] (percent)
										Total	Local Share				
Baraboo[c]	9,700	88,000	9,400	18,000	1.9	0.20	1.9	$126,400	$ 22,500	$103,900	$19,600	$ 7.02	$1.25	$5.77	17.8
Beaver Dam	14,200	207,500	16,600	71,800	5.1	0.35	4.3	178,100	93,300	84,800	0	2.48	1.30	1.18	52.4
Berlin	5,400	51,900	6,800	16,000	3.0	0.31	2.4	66,200	18,200	48,000	6,100	4.14	1.14	3.00	27.5
Black River Falls	3,700	48,000	6,700	17,300	4.7	0.36	2.6	79,700	30,300	49,400	1,800	4.61	1.75	2.86	38.0
Chippewa Falls	13,500	207,500	21,200	64,000	4.7	0.31	3.0	288,700	71,600	217,100	31,500	4.51	1.12	3.39	24.8
Fort Atkinson	10,200	98,500	10,600	48,500	4.8	0.49	4.6	126,500	58,700	67,800	0	2.61	1.21	1.40	46.4
Hartford	7,900	54,900	5,200	12,400	1.6	0.23	2.4	131,100	22,000	109,100	21,200	10.57	1.77	8.80	16.8
Jefferson	5,800	54,300	5,800	16,000	2.8	0.29	2.8	74,700	17,800	56,900	8,600	4.67	1.11	3.56	23.8
Marshfield	19,600	203,000	24,100	96,900	4.9	0.48	4.0	229,300	110,200	119,100	0	2.37	1.14	1.23	48.1
Platteville	9,700	43,000	5,700	14,900	1.5	0.35	2.6	57,600	16,500	41,100	4,800	3.87	1.11	2.76	28.6
Portage	8,600	290,900	23,500	100,800	11.7	0.35	4.3	343,500	133,100	210,400	6,000	3.41	1.32	2.09	38.7
Reedsburg	5,600	59,500	8,500	16,100	2.9	0.27	1.9	114,600	24,200	90,400	15,300	7.12	1.50	5.61	21.1
Rhinelander	8,000	146,100	13,100	47,200	5.9	0.32	3.6	154,300	97,200	57,100	0	3.27	2.06	1.21	63.0
Richland Center	5,000	40,500	5,900	17,000	3.4	0.42	2.9	48,500	21,400	27,100	0	2.85	1.26	1.59	44.1
Ripon	7,200	64,900	5,400	27,000	3.8	0.42	5.0	74,800	29,200	45,600	1,200	2.77	1.08	1.69	39.0
River Falls	8,700	53,000	6,500	18,500	2.1	0.35	2.8	101,800	23,400	78,400	12,300	5.50	1.26	4.24	23.0
Shawano	7,500	51,000	5,200	15,000	2.0	0.29	2.9	57,400	13,500	43,900	6,700	3.83	0.90	2.93	23.5
Sparta	7,900	67,500	6,700	16,100	2.0	0.24	2.4	65,500	25,000	40,500	1,400	4.07	1.55	2.52	38.2
Stoughton	8,800	48,900	4,200	19,000	2.2	0.39	4.5	49,500	25,000	24,500	0	2.61	1.32	1.29	50.5
Waupaca	4,900	60,200	6,600	14,400	2.9	0.24	2.2	72,100	21,600	50,500	5,400	5.01	1.50	3.51	30.0
Whitewater	12,000	79,200	8,500	42,000	3.5	0.53	4.9	109,000	47,500	61,500	0	2.60	1.13	1.46	43.6
Wisconsin Rapids[d]	24,000	218,100	21,600	57,000	2.4	0.26	2.6	243,700	90,000	153,700	7,200	4.28	1.58	2.70	36.9

[a] *Based on 1989 population estimates from the Wisconsin Department of Administration.*

[b] *Represents the percentage of operating expenses recovered through operating revenues.*

[c] *Includes the Village of West Baraboo.*

[d] *Includes the City of Nekoosa and the Village of Port Edwards.*

Source: Wisconsin Department of Transportation, Bureau of Transit; and SEWRPC.

Table 31

DESCRIPTION OF SIGNIFICANT DIFFERENCES AMONG ALTERNATIVE MANAGEMENT STRUCTURES FOR PUBLICLY SUPPORTED WEST BEND TRANSIT SERVICES

System Characteristic	Alternative 1: Municipal Ownership and Operation of Transit System	Alternative 2: Municipal Ownership and Operation with Competitively Awarded Contract with Private Management Firm	Alternative 3: Private Ownership and Operation with Competitively Awarded Contract with Private Transit Operator
Ownership	Equipment and facilities would be purchased and owned by the City of West Bend	Equipment and facilities would be purchased and owned by the City of West Bend	Equipment and facilities would be supplied by the private transit operator
Management Responsibilities	City of West Bend would be responsible for overseeing all activities related to the administration, management, and operation of transit system	City of West Bend would be responsible for overseeing all activities related to transit system administration, such as planning, budget preparation, grants management, and monitoring the activities of the private management firm The private management firm would be responsible for overseeing all day-to-day activities required to manage and operate the transit system to ensure that the called for transit services are actually provided	City of West Bend would be responsible for overseeing all activities related to transit system administration, such as planning, budget preparation, grants management, and monitoring the activities of the private transit operator The private transit operator would be responsible for overseeing all day-to-day activities required to manage and operate the transit system to ensure that the called for transit services are actually provided
Personnel	All personnel would be directly employed by the City of West Bend	All personnel needed for day-to-day system management and operation would be employed by the private management firm. Some personnel from the City of West Bend would still be needed for system administration	All personnel needed for day-to-day system management and operation would be employed by the private transit operator. Some personnel from the City of West Bend would still be needed for system administration
Operating Expenses	Vast majority of system operating expenses, including labor costs for day-to-day system management and operation, would be determined through negotiation or market prices	The contracted costs of day-to-day system management services would be determined through competitive bids. Vast majority of all other system operating expenses, including labor costs for day-to-day system management and operation, would be determined through negotiation or market prices	The contracted costs of day-to-day system management and operation, including labor costs, would be determined through competitive bids. Operating expenses related to system administration would be determined through negotiation or market prices
Capital Expenses	The total costs of capital equipment and facilities would be incurred as a single capital outlay at the time of purchase	The total costs of capital equipment and facilities would be incurred as a single capital outlay at the time of purchase	The total costs of capital equipment and facilities would be spread out over the useful life of each item and incurred through annual depreciation expenses charged by the private transit operator

Source: SEWRPC.

Table 32

EVALUATIVE COMPARISON OF ALTERNATIVE MANAGEMENT STRUCTURES FOR PUBLICLY SUPPORTED WEST BEND TRANSIT SERVICES

Alternative Management Structure	Advantages	Disadvantages
Municipal Ownership and Operation	1. Would permit the City to have specific control in selecting the equipment and facilities used in system operation 2. Would give the City direct control over all aspects of system administration, management, and operation	1. Would require potentially large capital outlay by the City at time of purchase of capital equipment and facilities 2. Would require an expansion of city staff to provide the personnel needed to manage day-to-day system operations, as well as to actually provide service 3. Would require City to assume direct responsibility for resolving any potential labor relations problems with transit system employees 4. Vast majority of system operating expenses, while directly controlled by the City, would not be subject to competitive bids
Municipal Ownership and Operation with Competitively Awarded Contract with Private Management Firm	1. Would permit the City to have specific control in selecting the equipment and facilities used in system operation 2. Would avoid the need to expand city staff. Personnel needed for day-to-day system management and operation would be employees of private management firm 3. Would place direct responsibility for resolving any potential transit system labor relations problems with private management firm, not the City 4. Portion of system operating expenses attendant to day-to-day system management would be subject to competitive bids	1. Would require potentially large capital outlay by the City at time of purchase of capital equipment and facilities 2. Would remove some direct control over system management and operation from City 3. Major elements of system operating expenses, including those for day-to-day system operation, would not be subject to competitive bids
Private Ownership and Operation with Competitively Awarded Contract with Private Transit Operator	1. Would avoid need for potentially large capital outlay for capital equipment and facilities 2. Would avoid the need to expand city staff. Personnel needed for day-to-day system management and operation would be employees of private transit operator 3. Places direct responsibility for any potential transit system labor relations problems with private transit operator, not the City 4. Operating expenses for day-to-day system management and operations would be controlled through competitive bids for the service contract	1. Would require the City to accept the equipment and facilities available from private operator, without guarantee that a private operator would be able to supply the appropriate equipment or facilities 2. Would result in somewhat higher operating expenses and lower financial performance for the transit system because of capital depreciation or lease charges from private operator 3. Removes some control over system management and operation from the City

Source: SEWRPC.

Bend. Under this alternative, the City of West Bend would purchase and own the operating equipment and facilities needed for the transit system. The City would also operate the system, using public employees, and would be responsible for overseeing all activities related to the administration, as well as day-to-day management and operation, of the transit system. Within the Southeastern Wisconsin Region, the City of Kenosha utilizes this alternative to provide transit services.

This alternative would permit the City to have specific control over the operating equipment and facilities selected for use in providing transit service and also permit the City to have direct control over all aspects of system administration, management, and operation. Public ownership of the operating equipment and facilities would, however, require a potentially large capital outlay by the City when capital items are purchased. This alternative would also require a significant increase in city staff and require the City to assume direct responsibility for resolving any potential labor relations problems resulting from the creation of a transit system, including negotiation of union contracts with such municipal transit system personnel as vehicle operators and mechanics.

The second alternative considered would provide for municipal ownership of the transit system equipment and facilities, but operation through a competitively awarded contract with a private management firm. This alternative differs from the previous alternative in that the City would contract with a private firm to provide management services which would include overseeing the day-to-day operation of the transit system and ensuring that the called for transit services are actually provided. Under this arrangement, the personnel used for day-to-day system operation would be employees of the private firm. Typically, contracts for management services cover the fees for the management personnel and services provided by the private firm, and do not cover the other costs incurred in day-to-day system operation, such as costs for labor, materials and supplies, and insurance. These costs would be determined through negotiation and market prices, as under the alternative proposing municipal operation. The City of West Bend would retain responsibility for overseeing all activities related to system administration, such as planning, route preparation, grants management, and monitoring the activities of the private management firm. This management structure is currently used by Milwaukee County and the Cities of Racine and Waukesha in the Southeastern Wisconsin Region to provide transit services. The County and Cities concerned own the systems, that is, the capital facilities, but contract with private firm for their management and operation.

This management structure would avoid the need for any significant increase in city staff, since the personnel needed for day-to-day system management and operation would be employees of a private management firm. The private management firm, not the City, would be directly responsible for resolving any potential labor relations problems with transit system employees. While this alternative could result in a loss of some direct control by the City over day-to-day system management and operations, significant system management decisions would still be subject to city approval. While the costs of management personnel and services would be subject to competitive bids, the major elements of system operating expenses would not.

The third management alternative would provide for the provision of public transit service through a competitively awarded contract with a private transit operator, who would supply the necessary operating equipment and facilities as part of its service contract with the City. The duties and responsibilities of the private transit operator under this alternative would be the same as those proposed for the private management firm under the previous alternative. However, the service contract with the private transit operator would cover all the costs entailed in system operation, with the exception of the administrative costs incurred by the City of West Bend. Waukesha County currently provides transit services under this alternative.

The major advantage of this management alternative over the previous two management alternatives would be that the majority of transit system operating expenses would be subject to a competitive bidding process. In this respect, competition among interested transit operators for the service contract could provide some economies in the annual expenditures for transit service. A second advantage would result from using operating equipment and facilities supplied by a private transit operator, which would

eliminate the need for potentially large capital outlays by the City for transit system equipment and facilities. Anyone choosing to use transit equipment and facilities supplied by the private operator should recognize, however, that there is no guarantee that private transit operators interested in bidding on a city service contract would be able to provide the specific type of operating equipment or facilities which the City may desire for system operation, and the City would then be required to accept whatever equipment and facilities would be available from the private transit operator.

A variation of this management alternative would be for the City to purchase the operating equipment and facilities needed for transit system operation and lease them back to the private transit operator. This variation would recognize that potential transit operators interested in the city transit service contract may not have the financial resources or capability to fund the potentially large total capital expenditures, outlined in later sections of this chapter, to provide alternative transit services. If purchasing publicly, the City could draw on federal transit funding programs to offset the major portion of the total expenditures needed for transit system capital equipment and facilities. This arrangement would assure that the operating equipment and facilities desired by the City would be available for transit system operation.

Recommendation

Based on the preceding analysis, transit system operation by a private transit operator selected on the basis of competitive bids would appear to represent the most practical management structure for the City of West Bend and is, therefore, recommended. Contracting for transit services in this manner would relieve the City of the details of day-to-day system management and operation; and would also minimize personnel requirements for the City, since the personnel needed for system management and operation would be employees of the private transit operator, not city employees. In addition, a service contract with a private transit operator would cover all the costs entailed in system operation, with the exception of administrative costs incurred by the City of West Bend. Competition among interested transit operators for the service contract could provide some economies in the annual expenditures for the transit service.

The City would retain responsibilities for overseeing all activities related to transit system administration. Such administrative responsibilities would include service monitoring activities, the preparation of applications and other documents necessary in order to receive federal and state transit assistance grants, and the preparation of materials and documents relating to service contracts. It is envisioned that the above responsibilities for transit system administration should not require the addition of any full-time staff, and could possibly be accomplished by distributing the various work assignments among existing city staff. While the initial activities required for system start-up could require significant staff time, it is envisioned that the regular duties entailed would require the equivalent of between one-quarter and one-half man-year in personnel resources. A description of the city staff duties associated with system administration is provided in Chapter VIII, describing the recommended transit system.

It is also recommended that the equipment and facilities needed to operate any transit system be purchased by the City of West Bend and leased back to the private transit operator, at minimal cost, for use on the transit system. This recommendation recognizes several advantages associated with public ownership. First, city ownership of the necessary operating equipment would provide for better control over equipment selection and ensure that appropriate equipment and facilities would be used in operating the transit system. Second, city ownership of the necessary equipment could result in greater competition for the city service contract, since it would remove some of the risk to private operators which could be associated with supplying operating equipment. Third, because of the potential availability to the City of federal transit capital assistance funds, the purchase of the necessary capital equipment and facilities by the City may be easier than purchase by the private operator using his own financial resources. Finally, use of federal transit capital assistance funds by the City should result in a larger proportion of the capital equipment costs being covered through noncity tax dollars.

After careful review of the advantages and disadvantages of the alternative management structures, the Advisory Committee unanimously recommended that the City purchase the

necessary equipment for transit system operation, and contract with a private transit operator selected on the basis of competitive bids to provide any publicly subsidized transit service ultimately recommended by the Committee.

ALTERNATIVE TRANSIT SERVICE PLANS

Three basic transit service alternatives were developed and evaluated for the West Bend area: 1) do nothing to encourage or support improved local transit services; 2) provide fixed-route bus service; and 3) provide demand-responsive transit service. For the two transit alternatives calling for the provision of publicly supported transit service, information is provided which describes the operating characteristics, ridership projections, and costs of the proposed transit services. In addition, subalternatives, representing different levels of transit service, were developed for these two alternatives. To facilitate ready comparison of the costs of the various types and levels of transit service, operating and capital project costs are presented in constant 1990 dollars, that is, they assumed no change in transit fares, no inflationary increases in operating expenses, and stable levels of federal and state funding over the planning period. The possible effects of general price inflation on costs is considered in the discussion of the financial commitment required for implementation of the recommended plan.

For Alternatives 2 and 3, which propose the establishment of publicly supported transit systems in the City of West Bend, it was assumed that operation of the proposed transit services would begin at the start of calendar year 1992, the earliest that state and federal operating assistance funds could, as a practical matter, be obtained to help defray the operating costs of providing the service. Meeting this start-up date required several other key assumptions to be made.

First, it was assumed that city approval of any public transit system recommended for implementation would be obtained early in the second quarter of 1991. Only after such approval is received can other actions necessary for the start-up of a transit system be undertaken, including the formation of a public policy making body to oversee the preparation and ultimate operation of the transit system, or the assignment of such duties to an existing policy making body, and the assignment of work activities necessary for system start-up and operation, including the preparation of bid solicitation documents and applications for federal and state assistance, to existing city personnel.

Second, it was assumed that the City will, early in the third quarter of 1991, have the necessary bid solicitation documents prepared in time to solicit service proposals from interested private transit operators. It will be important for the City to have a contract with the private transit operator before the end of the third quarter to ensure sufficient time for start-up activities and to provide the needed financial information so city staff can prepare applications for federal and state transit operating assistance funds for 1992. The initial deadline for submission of such applications will be in the middle of the fourth quarter of 1991.

Finally, while city ownership of all transit system operating equipment and facilities has been recommended, it was assumed that during the first few years of system operation the equipment and facilities used would have to be supplied by the private transit operator. This assumption recognizes that an application for federal transit capital assistance funds, which would in all likelihood be needed to offset the total capital costs associated with the start-up of any new transit system, would probably not be submitted until 1992. If federal capital assistance is made available, the acquisition of new operating equipment under the federal grant and procurement process could still require up to two years. Consequently, it was assumed that the transit operator would initially be responsible for supplying the operating equipment and facilities needed to initiate transit system operation, and that the City would phase in publicly owned equipment as it becomes available, most likely during 1994. The initial costs of system operation would, consequently, be somewhat higher because of charges for using capital equipment supplied by the private operator.

Alternative 1—Status Quo Alternative

The first transit service alternative considered in this study was a continuation of the present situation. Under this alternative, the City would do nothing that would require the expenditure of public funds to subsidize any type of public transit service. The privately operated local taxicab service would continue to be the only local transit service available to the general

Table 33

PROPOSED OPERATING CHARACTERISTICS OF THE EXISTING PRIVATE TAXICAB SERVICE PROVIDED UNDER ALTERNATIVE 1

Operating Characteristics	Existing Private Taxicab Service
Service Levels	
Days and Hours of Operation	
Weekdays	7:00 a.m. to 9:00 p.m.
Saturdays	7:00 a.m. to 9:00 p.m.
Sundays and Holidays	No service
Response Time	45 minutes
Peak Vehicle Requirements	
For Operation	
Weekdays	1
Saturdays	1
Sundays and Holidays	- -
Total Fleet	1
Passenger Fares[a]	
Regular Fare	$3.90
Elderly/Disabled Fares	
With User-Side Subsidy Program	1.00
Without User-Side Subsidy Program	3.40
Mileage Charge	1.20 per mile for trips over three miles
Percent of Average Daily Revenue Passengers by Fare Category	
Regular	20
Elderly/Disabled	80

[a]*Based upon 1991 fares.*

Source: SEWRPC.

public in the study area. Specialized transit services for priority population groups would continue to be offered by public and private agencies and organizations. The costs of providing these services would continue to be supported through the fares charged for their use and through the budgets of the sponsoring public and private agencies. The operating characteristics of the local taxicab service available for use by the general public under this alternative are presented in Table 33.

Alternative 2—Fixed-Route Transit Service

Alternative 2 represents an attempt to eliminate the major deficiencies in the current level of transit service provided in the study area, as identified in Chapter V, through the establishment of a fixed-route bus system. This alternative includes three subalternatives representing different levels of service area coverage and periods of operation. A summary of selected operating characteristics of the fixed-route bus systems proposed under Alternative 2 is presented in Table 34.

Fixed-route transit service under each subalternative would be provided using cycle scheduling over a system of radial and loop routes which would originate, in most cases, at the outer limits of the City and terminate in the West Bend central business district. Operation of a system of cycle scheduling would require that the vehicles serving each route meet at a common point in the central business district at regular intervals during the hours of service, thus optimizing the potential for, and ease of, transferring between routes. A major advantage of this type of scheduling is the minimization of waiting time when transferring from one route to another.

Table 34

PROPOSED OPERATING CHARACTERISTICS OF THE FIXED-ROUTE TRANSIT SERVICE PROPOSED UNDER ALTERNATIVE 2

Operating Characteristic	Subalternative 2A[a]	Subalternative 2B[b]	Subalternative 2C[b]
Route Information			
Number of Routes Operated with:			
Two-Way Service	5	3	3
One-Way Loop Service	1	2	2
Total	6	5	5
Total Miles of Route[c]	54.6	43.2	43.2
Service Levels			
Days and Hours of Operation			
Weekdays	6:00 a.m. to 6:00 p.m.	6:00 a.m. to 6:00 p.m.	6:00 a.m. to 6:00 p.m.
Saturdays	9:00 a.m. to 4:00 p.m.	9:00 a.m. to 4:00 p.m.	No service
Headways	40 minutes at all times	40 minutes at all times	40 minutes at all times
Type of Scheduling	Cycle	Cycle	Cycle
Number of Bus Trips Over Each Route:			
Weekdays	18	18	18
Saturdays	10	10	--
Vehicle Requirements			
For System Operation			
Weekdays	6	5	5
Saturdays	6	5	--
Total Fleet[d]	8	7	7
Passenger Fares			
Cash Fares[e]			
Base/Adult Fare	$0.75	$0.75	$0.75
Students (age 5 through high school)	0.50	0.50	0.50
Elderly (age 65 and older)	0.35	0.35	0.35
Disabled	0.35	0.35	0.35
Children (age 4 and under)[f]	Free	Free	Free
Transfers	Free	Free	Free
Percent of Average Daily Revenue Passengers by Fare Category			
Adults	35	35	35
Students	40	40	40
Elderly/Disabled	25	25	25

[a] *Assumes operation of the six-route system shown on Map 15.*

[b] *Assumes operation of the five-route system shown on Map 16.*

[c] *Round trip route miles.*

[d] *Includes vehicles needed for spares.*

[e] *Convenience fares, such as passes and tickets which provide for discounts from regular cash fares, could also be offered under any transit system which may be recommended for implementation. The establishment of such fares will be discussed in the section of the report describing the recommended transit system.*

[f] *When accompanied by another passenger who pays a fare.*

Source: SEWRPC.

Figure 5

EXAMPLE OF HEAVY-DUTY TRANSIT BUS PROPOSED FOR USE UNDER FIXED-ROUTE TRANSIT SERVICE ALTERNATIVES

Photo courtesy Gillig Corporation.

Figure 6

EXAMPLE OF SMALL TRANSIT BUS

Source: SEWRPC.

It is assumed that the base one-way user fare for fixed-route transit service would be established at $0.75 per adult trip, with lower fares of $0.50 for students and $0.35 for elderly or disabled persons. No charge would be assessed for children four years of age and under riding with another paid fare or for transfers between routes. These fares would be comparable to fares charged on fixed-route bus systems serving similar size communities in Wisconsin.

The establishment of a fixed-route bus system in the City of West Bend will require a substantial amount of capital equipment and facilities. It is proposed that the vehicles used for operation on any of the fixed-route transit systems proposed under this alternative consist of 25- to 30-foot-long heavy-duty transit buses similar to those shown in Figure 5. To comply with current federal regulations, all vehicles would be wheelchair-accessible. Wheelchair-accessible vehicles of this type are generally capable of accommodating up to 25 to 28 seated passengers plus standees, which should be sufficient to handle the peak demand generated on the system's fixed bus routes. Heavy-duty equipment of this type is the operating equipment preferred by virtually all fixed-route bus systems in Wisconsin, including those operated in communities similar in size to the City of West Bend. While having a higher initial capital cost than medium-duty vehicles of similar size, equipment of this type has been found to have a lower overall cost when consideration is given to the maintenance and replacement costs of each vehicle type over the entire length of its useful life.

It should be noted that the size of the buses proposed to be used in providing fixed-route bus service in the City of West Bend reflects the practices of other fixed-route transit systems in Wisconsin. Buses of this size will be needed to accommodate the peak passenger loads expected to be generated by area schools. The full capacity of the buses would be needed, however, for only a few bus trips in the morning and afternoon periods. During most hours of system operation, the full capacity of the large buses would not be used. In some Wisconsin communities, this same situation has resulted in some public officials questioning the need for the operation of large-capacity buses and proposing the operation of smaller-capacity buses to avoid the public perception that the transit system was being underutilized during nonpeak ridership periods. For this reason, the use of smaller-capacity buses, similar to those shown in Figure 6, for a fixed-route transit system could represent an option which the City may wish to consider.

Other significant capital projects would include the acquisition of a bus storage and maintenance facility for the bus fleet. Enclosed storage facilities would be viewed as necessary to maintain vehicle reliability during winter months and to prolong the life of the equipment. The provision of such facilities is standard practice for almost all fixed-route bus systems in the State, including those serving communities similar in size to the City of West Bend. Acquisition of a mobile-radio system to provide for two-way communication between the dispatcher and each bus is viewed as necessary in cycle schedule operations to maintain schedule coordination and transfer potential between routes. Installation of bus passenger shelters at major loading areas and exposed locations is considered essential in areas such as West Bend, where harsh winter weather can cause discomfort to waiting passengers. Initially, it is proposed that five bus passenger shelters be acquired. Finally, bus stop and information signs would be needed to mark locations where passengers can safely board and alight from transit vehicles.

As previously noted, it is assumed that the equipment and facilities needed to initiate transit service in 1992 would have to be supplied by the private transit operator, with the private operator's equipment ultimately replaced with publicly owned equipment leased to the operator by the City. It is possible that some compromise would initially be necessary on the type and size of the vehicles supplied for the start-up of operations by the private transit operator. No compromise, however, should be permitted in the accessibility requirements for disabled persons. It is also possible that a private transit operator could have, or be willing to obtain, appropriate bus storage and maintenance facilities, which would preclude the need for the City to acquire such facilities in the future.

In addition to fixed-route bus service, all the subalternatives proposed under Alternative 2 would include the provision of specialized, wheelchair-accessible transportation service for disabled individuals who would be unable to use the accessible equipment operated on the regular transit routes. Such supplemental specialized transit service is required under current federal regulations and would be provided in the same service area and during the same days and hours of operation as the fixed-route transit system. It is assumed that this service would also be provided through a competitively awarded contract with a private transit operator.

Projections of the ridership and financial performance of the fixed-route bus systems proposed under Alternative 2 are presented in Table 35. The following sections briefly summarize the significant differences in both the proposed operating characteristics and projected performance levels of the fixed-route transit service subalternatives.

Subalternative 2A: Subalternative 2A proposes the operation of a system of six bus routes, five operated as radial routes providing two-way service along the majority of their length and one operated as a one-way loop. Service would be provided at 40 minute headways over all six routes during all times of operation, which would include weekdays between 6:00 a.m. and 6:00 p.m. and Saturdays between 9:00 a.m. and 4:00 p.m. The routes operated by the system would provide almost complete service area coverage of the existing and proposed areas of residential, commercial, and industrial development in the City of West Bend. As a result of this extensive service area coverage, about 25,700 persons, or about 76 percent of the estimated 1990 resident population of the study area of about 33,900 persons, would be in the service area of the system. Of this total, it is estimated that 24,300 persons would be residents of the City of West Bend, representing about 99 percent of the City's 1990 estimated population of 24,600 persons. The bus routes and area served by the transit system proposed under this subalternative are shown on Map 15.

Under this subalternative, the proposed transit system may be expected to generate an annual ridership of about 128,000 revenue passengers during its first year of operation. By 1996, annual ridership on the transit system may be expected to increase to about 181,000 revenue passengers, or by about 41 percent over ridership during its initial year. Operating expenses for transit service may be expected to approximate $843,000 during the initial year of system operation, but to decline to about $750,000 by 1996 when service would be expected to be provided using publicly owned equipment and facilities. Operating deficits for the transit system should decrease with the growth of system ridership and passenger revenues from about $772,000 during 1992 to about $648,000 during 1996. The local share of

Table 35

PROJECTED RIDERSHIP AND FINANCIAL REQUIREMENTS OF THE FIXED-ROUTE TRANSIT SERVICE PROPOSED UNDER ALTERNATIVE 2: PROJECTED 1992 AND 1996

Operating Characteristic	Subalternative 2A[a]		Subalternative 2B[b]		Subalternative 2C[b]	
	1992	1996	1992	1996	1992	1996
Service Provided						
Annual Revenue Vehicle Hours	20,650	20,620	17,210	17,180	15,420	15,360
Annual Revenue Vehicle Miles	280,200	279,800	221,800	221,400	199,700	198,900
Revenue Passengers						
Average Weekday	460	655	410	585	410	585
Total Annual	127,600	181,400	113,800	161,700	105,400	149,900
Service Cost[c]						
Total Annual Operating Expenses	$843,200	$750,300	$705,200	$622,500	$642,600	$558,000
Total Annual Operating Revenue	71,200	102,700	63,400	91,300	58,800	84,800
Total Annual Operating Deficit	772,000	647,600	641,800	531,200	583,800	473,200
Sources of Required Public Funds						
Federal Operating Assistance[d]	223,900	187,800	186,100	154,000	169,300	137,200
State Operating Assistance[e]	324,600	288,900	271,500	239,700	247,400	214,800
Local Operating Assistance	223,500	170,900	184,200	137,500	167,100	121,200

[a]Assumes operation of the six-route system shown on Map 15 with the operating characteristics shown in Table 34. Includes ridership and costs associated with accessible specialized transportation service required to be provided for disabled persons unable to use the fixed-route bus system.

[b]Assumes operation of the five-route system shown on Map 16 with the operating characteristics shown in Table 34. Includes ridership and costs associated with accessible specialized transportation service required to be provided for disabled persons unable to use the fixed-route bus system.

[c]Expressed in 1990 constant dollars.

[d]Assumes sufficient federal funds will be available through the UMTA Section 18 formula assistance program to cover 29 percent of projected transit system operating deficits.

[e]Assumes sufficient state funds will be available through the state urban mass transit operating assistance program to cover 38.5 percent of projected transit system operating expenses.

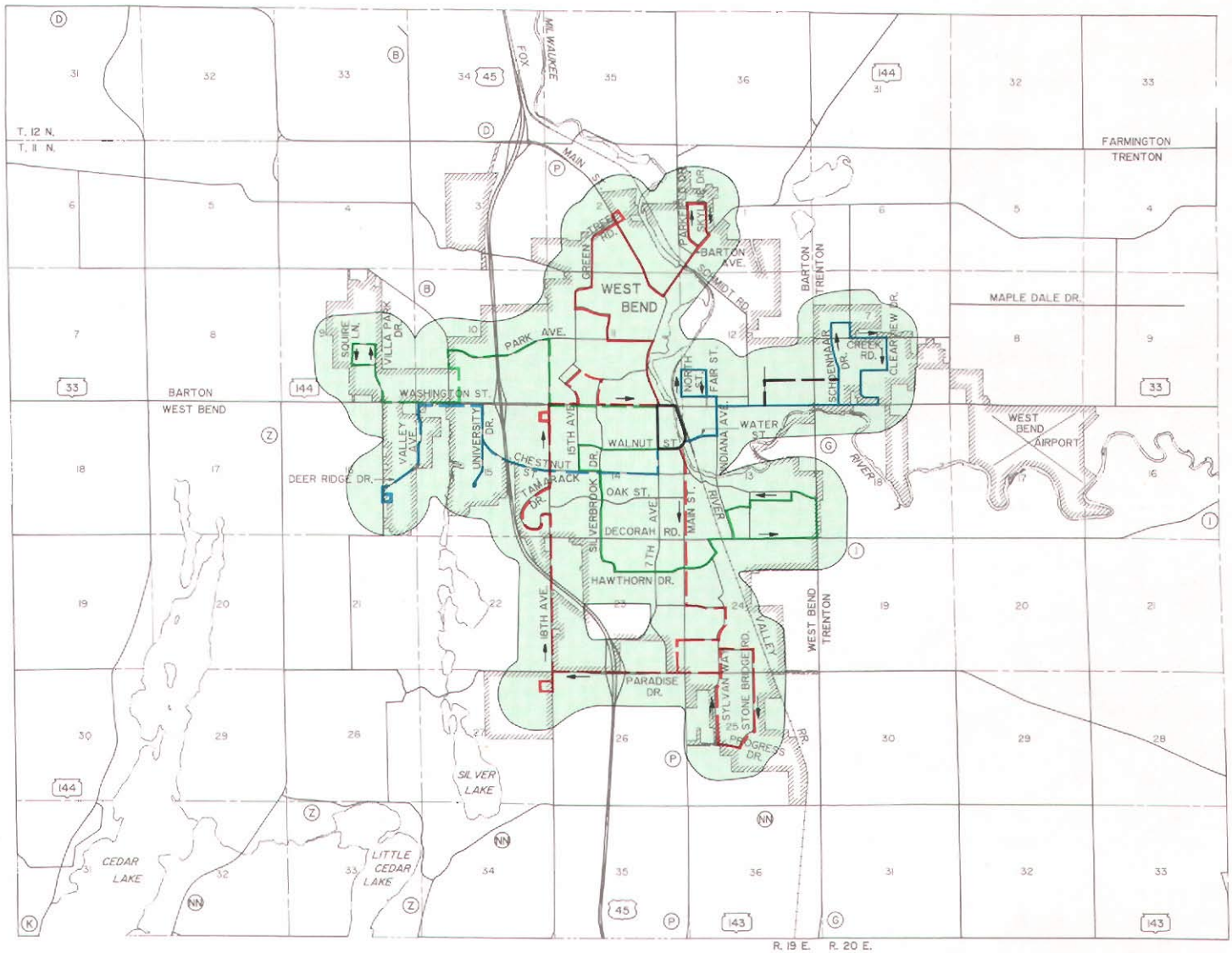
Source: SEWRPC.

the operating deficit may be expected to decline from about $223,000 in 1992 to about $171,000 in 1996.

The capital projects and expenditures required for the implementation of the fixed-route bus system proposed under Subalternative 2A are presented in Table 36. The total costs of the capital projects proposed under this subalternative would be about $2,148,000. Of this amount, between $1,611,000 and $1,719,000, or 75 to 80 percent, could potentially be funded through federal Urban Mass Transportation Administration (UMTA) capital assistance programs. The remaining 20 to 25 percent of total project costs, amounting to between $430,000 and

Map 15

SIX-ROUTE TRANSIT SYSTEM PROPOSED UNDER SUBALTERNATIVE 2A



LEGEND

BUS ROUTES

REGULAR SERVICE	SPECIAL SERVICE
ROUTE NO. 1	ROUTE NO. 2
ROUTE NO. 2	ONE-QUARTER MILE WALK TRANSIT SERVICE AREA
ROUTE NO. 3	
ROUTE NO. 4	
ROUTE NO. 5	
ROUTE NO. 6	
DOWNTOWN LOOP	

Source: SEWRPC.

Table 36

CAPITAL PROJECTS AND EXPENDITURES REQUIRED FOR FIXED-ROUTE TRANSIT SERVICE UNDER SUBALTERNATIVE 2A

Capital Equipment or Project		Unit Cost[a]	Total Cost[a]
Quantity	Description		
8	25- to 30-foot-long wheelchair-accessible heavy-duty urban motor coaches	$140,000	$1,120,000
--	Initial spare parts inventory	15,000	15,000
8	Nonregistering, locked, double-vault fareboxes	1,000	8,000
1	Mobile radio system	25,000	25,000
430	Bus stop and information signs	75[b]	32,300
5	Bus passenger shelters	5,000[b]	25,000
1	Bus storage and maintenance facility	650,000[c]	650,000
Total Acquisition and Construction Costs			$1,875,300
Contingencies[d]			182,300
Project Administration[e]			90,600
Total Capital Project Costs			$2,148,200
Federal Share of Total Capital Costs[f]			1,611,200-1,718,600
Local Share of Total Capital Costs[g]			429,600-537,000

[a]*Expressed in constant 1990 dollars.*

[b]*Installed.*

[c]*Includes costs for construction, architectural and engineering services, and equipment.*

[d]*Estimated at 10 percent of total acquisition costs for buses; 10 percent of construction, architectural, and engineering costs for the bus storage and maintenance facility; and 5 percent of total acquisition and construction costs for all other equipment.*

[e]*Estimated at 5 percent of total acquisition costs for buses; 5 percent of construction, architectural, and engineering costs for the bus storage and maintenance facility; and 2 percent of total acquisition and construction costs for all other equipment.*

[f]*Assumes 75 to 80 percent of eligible capital costs could be funded through the UMTA Section 3 discretionary or Section 18 formula grant programs, respectively.*

[g]*Includes the 20 to 25 percent local matching funds required under UMTA grant programs.*

Source: SEWRPC.

$537,000, would need to be funded by the City of West Bend.[1]

Subalternative 2B: Under Subalternative 2B, transit service would be provided over a system of five fixed routes, three operated as radial routes providing two-way service over the majority of their length and two operated as one-way loops. Operating headways and service hours for this subalternative would be the same as those for Subalternative 2A. Transit service area coverage under this subalternative would be somewhat less extensive than that provided under Subalternative 2A, since bus routes would not serve some areas of new residential and commercial development which have occurred in the recent past or are proposed to occur in the near future in the western and southwestern portion of the City. Despite the reduced service area, the system would still provide extensive coverage of the resident population of the area, serving an estimated 25,200 persons, or about 75 percent of the estimated 1990 study area population of 33,900 persons. Of the population served, it is estimated that about 23,900 persons would be residents of the City of West Bend, representing about 97 percent of the City's 1990 estimated population of 24,600 persons. The proposed bus routes and areas served by the transit system proposed under Subalternative 2B are shown on Map 16.

The transit system operating under this subalternative may be expected to generate about 114,800 revenue passengers during its initial year of operation. By 1996, annual ridership on this system may be expected to reach about 162,000 revenue passengers, an increase of about 42 percent over system ridership during 1992. Operating expenses for the transit system may be expected to approximate $705,000 during 1992, but to decline slightly to about $623,000 by 1996 due to the replacement of privately owned equipment initially operated with publicly owned equipment. Operating deficits for the system may also be expected to decline from about $642,000 during 1992 to about $531,000 by 1996 due to increasing ridership and passenger revenues. City funds required to operate the transit system may also be expected to range from about $184,000 during 1992 to about $138,000 during 1996.

The capital projects and expenditures required to implement the five-route bus system proposed under Subalternative 2B are presented in Table 37. The total acquisition and construction costs of the proposed capital equipment and facilities would be about $1,977,000. Between 75 and 80 percent of the total costs, which would amount to between $1,483,000 and $1,581,000, could potentially be funded with federal funds. The remaining 20 to 25 percent of total capital costs, which would amount to between $395,000 and $494,000, would need to be funded by the City of West Bend.

Subalternative 2C: Subalternative 2C proposes the operation of the same five-route bus system proposed for operation under Subalternative 2B and would differ from that subalternative only with respect to the days of system operation. In this respect, transit service under Subalternative 2C would only be provided on weekdays between the hours of 6:00 a.m. and 6:00 p.m., with no service offered on Saturdays.

With service provided only on weekdays, the transit service proposed under Subalternative 2C may be expected to generate an annual ridership of about 105,000 revenue passengers during 1992. By 1996, ridership on the transit system may be expected to increase to about 150,000 revenue passengers, or by about 43 percent over ridership generated during its initial year of operation. Operating expenses may be expected to be about $643,000 during 1992, but may be expected to decline to about $558,000 by 1996 because of replacement of public equipment with private equipment. With the projected increases in ridership and attendant increases in passenger revenues, the operating deficit for the transit

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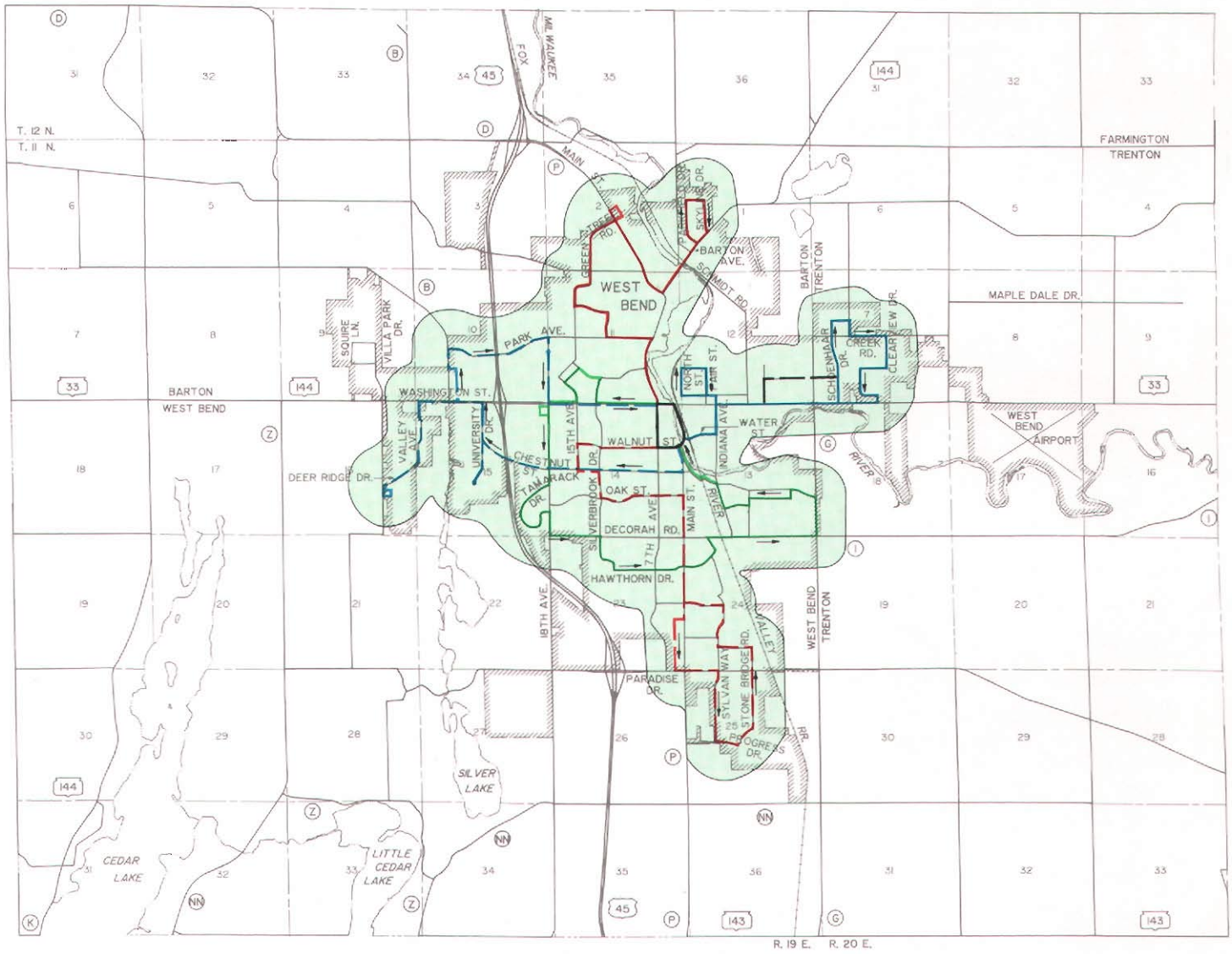
[1] *It is assumed that the local share of total capital project costs for all transit service alternatives would be funded from property taxes levied by the City of West Bend. Current federal and state regulations do not allow depreciation expenses on publicly owned equipment and facilities to be counted toward eligible operating expenses under either the federal or state transit operating assistance programs. Consequently, annual depreciation expenses of the capital equipment and facilities purchased with city tax dollars could not be included under the annual operating expenses for the transit system which are used as a basis of calculating the federal and state transit operating assistance.*

Map 16

FIVE-ROUTE TRANSIT SYSTEM PROPOSED UNDER SUBALTERNATIVES 2B AND 2C



LEGEND

BUS ROUTES

REGULAR SERVICE

- ROUTE NO. 1
- ROUTE NO. 2
- ROUTE NO. 3
- ROUTE NO. 4
- ROUTE NO. 5
- DOWNTOWN LOOP

SPECIAL SERVICE

- ROUTE 2

ONE-QUARTER MILE WALK TRANSIT SERVICE AREA

Source: SEWRPC.

Table 37

CAPITAL PROJECTS AND EXPENDITURES REQUIRED FOR FIXED-ROUTE TRANSIT SERVICE UNDER SUBALTERNATIVES 2B AND 2C

Capital Equipment or Project		Unit Cost[a]	Total Cost[a]
Quantity	Description		
7	25- to 30-foot-long wheelchair-accessible heavy-duty urban motor coaches	$140,000	$ 980,000
--	Initial spare parts inventory	15,000	15,000
7	Nonregistering locked, double-vault fareboxes	1,000	7,000
1	Mobile radio system	23,000	23,000
340	Bus stop and information signs	75[b]	25,500
5	Bus passenger shelters	5,000[b]	25,000
1	Bus storage and maintenance facility	650,000[c]	650,000
Total Acquisition and Construction Costs			$1,725,500
Contingencies[d]			167,800
Project Administration[e]			83,400
Total Capital Project Costs			$1,976,700
Federal Share of Total Capital Costs[f]			1,482,500-1,581,400
Local Share of Total Capital Costs[g]			395,300-494,200

[a] *Expressed in constant 1990 dollars.*

[b] *Installed.*

[c] *Includes costs for construction, architectural and engineering services, and equipment.*

[d] *Estimated at 10 percent of total acquisition costs for buses; 10 percent of construction, architectural, and engineering costs for the bus storage and maintenance facility; and 5 percent of total acquisition and construction costs for all other equipment.*

[e] *Estimated at 5 percent of total acquisition costs for buses; 5 percent of construction, architectural, and engineering costs for the bus storage and maintenance facility; and 2 percent of total acquisition and construction costs for all other equipment.*

[f] *Assumes 75 to 80 percent of eligible capital costs could be funded through the UMTA Section 3 discretionary or Section 18 formula grant programs, respectively.*

[g] *Includes the 20 to 25 percent local matching funds required under UMTA grant programs.*

Source: SEWRPC.

system may be expected to decrease from about $584,000 in 1992 to about $473,000 in 1996. The City's share of the operating deficit may also be expected to decline from about $167,000 in 1992 to about $121,000 in 1996.

The capital projects and expenditures for Subalternative 2C would be the same for those proposed for Subalternative 2B and are shown in Table 37.

Alternative 3

Alternative 3 proposes that publicly supported demand-responsive transit service for the general public be established in order to eliminate the major deficiencies in the current level of transit service in the study area. The demand-responsive transit service proposed under this alternative would be provided through the operation of a publicly subsidized shared-ride taxicab system. The service would be provided by one or more

Table 38

PROPOSED OPERATING CHARACTERISTICS OF THE SHARED-RIDE TAXICAB SERVICE PROPOSED UNDER ALTERNATIVE 3

Operating Characteristic	Subalternative 3A	Subalternative 3B	Subalternative 3C
Service Levels			
Days and Hours of Operation			
Weekdays	6:00 a.m. to 6:00 p.m.	7:00 a.m. to 9:00 p.m.	6:00 a.m. to 10:00 p.m.
Saturdays	9:00 a.m. to 4:00 p.m.	7:00 a.m. to 9:00 p.m.	6:00 a.m. to 10:00 p.m.
Sundays and Holidays	No service	No service	8:00 a.m. to 2:00 p.m.
Response Time	30 minutes	30 minutes	30 minutes
Vehicle Requirements			
For System Operation			
Weekdays	4	4	4
Saturdays	3	3	3
Sundays and Holidays	--	--	3
Total Fleet[a]	6	6	6
Passenger Fares			
Cash Fares[b]			
Base/Adult Fare	$2.00	$2.00	$2.00
Students (age 5 through high school)	1.50	1.50	1.50
Elderly (age 65 and older)	1.00	1.00	1.00
Disabled	1.00	1.00	1.00
Children (age 4 and under)[c]	Free	Free	Free
Percent of Average Daily Revenue Passengers by Fare Category			
Adults	20	20	20
Students	10	10	10
Elderly/Disabled	70	70	70

[a] *Includes vehicles needed for spares.*

[b] *Special convenience fares which provide for discounts from regular cash fares could also be offered under any transit system which may be recommended for implementation. The establishment of such fares will be discussed in the section of the report describing the recommended transit system.*

[c] *When accompanied by another passenger who pays a fare.*

Source: SEWRPC.

private transit operators under contract with the City of West Bend. This alternative includes three subalternatives, which propose different periods of operation for the shared-ride taxicab system. The service area for the system under each subalternative would be the same as that for the existing privately operated taxicab system—the City of West Bend and its immediate environs. The summary of selected operating characteristics of the shared-ride taxicab systems under each subalternative is presented in Table 38.

The proposed shared-ride taxicab service would be similar in many respects to the private taxicab service currently provided in the City of West Bend. Prospective users would place their request for service by telephoning the contract taxicab operator. A vehicle would be scheduled to pick up the user in a maximum of 30 minutes. Upon reaching his destination, the user could leave instructions with the driver for a return trip at a specified time. A major difference with the current private taxicab operation would be that passengers with different origins and destination

would be allowed to share a taxicab vehicle for all or part of the trip. Such sharing of taxicab vehicles is currently prohibited by a city ordinance, but this could be revised or rescinded in order for this alternative to be implemented.

This alternative assumes that taxicab service would initially be provided as a many-origin-to-many-destination type of service, as the service is provided at present. The operation could, however, be expanded to include many-to-one, many-to-few, and subscription types of services serving major trip generators if sufficient demand were generated and the need arose in the future. Should this occur, the shared-ride taxicab service could evolve into fixed-route transit service in travel corridors where actual operating experience indicated that travel demand warranted establishment of such service.

It is assumed that the base one-way user fare for the shared-ride taxicab service would be established at $2.00 per adult trip, with lower fares of $1.50 for students and $1.00 for elderly or disabled persons. No charge would be assessed for children four years of age and under riding with another paid fare. Such fares are consistent with those charged by publicly subsidized shared-ride taxicab services operating in similar sized Wisconsin communities.

As assumed under Alternative 2, it was also assumed under Alternative 3 that the capital equipment and facilities needed to provide shared-ride taxicab service would initially be supplied by the private taxicab operator as part of its service contract with the City. The private operator's equipment would ultimately be replaced with publicly owned equipment leased to the operator by the City as it can be acquired using federal funds. The capital equipment needed to operate the shared-ride taxicab system would, however, be significantly less than that which is needed to operate a fixed-route bus system. The equipment needed under this alternative would include only a fleet of vans similar to the one shown in Figure 7, to serve as taxicabs, and a mobile-radio system to control their dispatch. To comply with current federal regulations, vehicles which are acquired for the shared-ride taxicab operation—including those acquired by private taxicab operators for the service contract with the City—would have to be accessible to disabled persons, including those confined to wheelchairs. The acquisition of a facility to provide for storage and maintenance of the taxicab fleet is not proposed under this alternative, since it is not common practice for such facilities to be provided in other similar sized Wisconsin communities with publicly supported shared-ride taxicab systems. Within such communities, storage of vehicles outside or at the home of a taxicab driver is common and vehicle maintenance is usually performed at a local garage or automobile dealership.

Figure 7

EXAMPLE OF SMALL WHEELCHAIR-ACCESSIBLE VAN PROPOSED FOR USE UNDER SHARED-RIDE TAXICAB SERVICE ALTERNATIVES

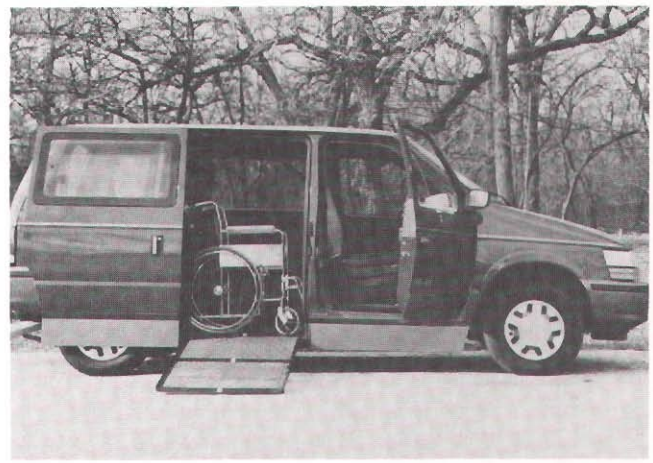


Photo courtesy of Fair Access, Inc.

Projections of the ridership and financial performance of the shared-ride taxicab systems proposed under Alternative 3 are presented in Table 39. The following sections briefly summarize the significant differences in both the operating characteristics and projected performance levels of the shared-ride taxicab service subalternatives.

Subalternative 3A: Subalternative 3A proposes the operation of a shared-ride taxicab system on weekdays between 6:00 a.m. and 6:00 p.m. and on Saturdays between 9:00 a.m. and 4:00 p.m. These hours of operation would be identical to the hours of operation for the fixed-route bus system proposed under Subalternative 2A. The transit service provided under this subalternative would provide complete coverage of the developed areas and major traffic generators in the City of West Bend. A publicly subsidized door-to-door transit service would be available to 100 percent of the City's estimated 1990 resident population of 24,600 persons.

Table 39

PROJECTED RIDERSHIP AND FINANCIAL REQUIREMENTS OF THE SHARED-RIDE TAXICAB SERVICE PROPOSED UNDER ALTERNATIVE 3: PROJECTED 1992 AND 1996

Operating Characteristic	Subalternative 3A[a]		Subalternative 3B[a]		Subalternative 3C[a]	
	1992	1996	1992	1996	1992	1996
Service Provided						
Annual Revenue Vehicle Hours	10,740	10,710	13,040	13,030	14,590	14,570
Annual Revenue Vehicle Miles	99,500	107,900	108,200	117,500	120,600	130,900
Revenue Passengers						
Average Weekday	110	140	120	150	125	160
Total Annual	31,100	39,500	33,900	43,000	37,100	47,000
Service Cost[b]						
Total Annual Operating Expenses	$161,500	$123,400	$184,400	$146,600	$201,400	$163,900
Total Annual Operating Revenue	38,900	49,400	42,400	53,800	46,400	58,800
Total Annual Operating Deficit	122,600	74,000	142,000	92,800	155,000	105,100
Sources of Required Public Funds						
Federal Operating Assistance[c]	35,600	21,500	41,200	26,900	45,000	30,500
State Operating Assistance[d]	62,200	47,500	71,000	56,400	77,500	63,100
Local Operating Assistance	24,800	5,000	29,800	9,500	32,500	11,500

[a]*Assumes taxi service would be provided with the operating characteristics shown in Table 38 for each alternative.*

[b]*Expressed in 1990 constant dollars.*

[c]*Assumes sufficient federal funds will be available through the UMTA Section 18 formula assistance program to cover 29 percent of projected transit system operating deficits.*

[d]*Assumes sufficient state funds will be available through the state urban mass transit operating assistance program to cover 38.5 percent of projected transit system operating expenses.*

Source: SEWRPC.

Under this subalternative, the proposed shared-ride taxicab system may be expected to generate an annual ridership of about 31,000 revenue passengers during its first year of operation. By 1996, annual ridership on the transit system may be expected to increase to almost 40,000 revenue passengers, or by about 29 percent over ridership during its initial year. Operating expenses for the transit service may be expected to be about $162,000 during the initial year of system operation, but may be expected to decline to about $123,000 by 1996 when service would be expected to be provided using publicly owned equipment. Operating deficits of the transit system may be expected to decrease with the growth of system ridership and passenger revenues from about $123,000 during 1992 to about $74,000 during 1996. The local share of the operating deficit may be expected to decline from about $25,000 in 1992 to about $5,000 in 1996.

The capital projects and expenditures required for implementation of the shared-ride taxicab system proposed under Subalternative 3A are presented in Table 40. The total cost of the capital projects proposed under this alternative may be expected to approximate $211,000. Of this amount, between $158,000 and $169,000, or 75 to 80 percent, could potentially be funded through federal grants. The remaining 20 to 25 percent of total project costs, amounting to between $42,000 and $53,000, would need to be funded by the City of West Bend.

Table 40

CAPITAL PROJECTS AND EXPENDITURES REQUIRED FOR SHARED-RIDE TAXICAB SERVICE UNDER ALTERNATIVE 3

Capital Equipment or Project		Unit Cost[a]	Total Cost[a]
Quantity	Description		
6	Small wheelchair-accessible vans or minivans	$30,000	$180,000
1	Mobile radio system	17,000	17,000
Total Acquisition and Construction Costs			$197,000
Contingencies[b]			9,900
Project Administration[c]			3,900
Total Capital Project Costs			$210,800
Federal Share of Total Capital Costs[d]			158,100-168,600
Local Share of Total Capital Costs[e]			42,200-52,700

[a]*Expressed in constant 1990 dollars.*

[b]*Estimated at 5 percent of total acquisition and construction costs for all equipment.*

[c]*Estimated at 2 percent of total acquisition and construction costs for all equipment.*

[d]*Assumes 75 to 80 percent of eligible capital costs could be funded through the UMTA Section 3 discretionary or Section 18 formula grant programs, respectively.*

[e]*Includes the 20 to 25 percent local matching funds required under UMTA grant programs.*

Source: SEWRPC.

Subalternative 3B: Subalternative 3B proposes the operation of a shared-ride taxicab system with days and hours of operation similar to those provided by the existing private taxicab operation. In this respect, shared-ride taxicab service would be provided on weekdays and on Saturdays between the hours of 7:00 a.m. and 9:00 p.m.

The taxicab system operating under this subalternative may be expected to generate about 34,000 revenue passengers during its initial year of operation. By 1996 annual ridership on this system may be expected to reach about 43,000 revenue passengers, an increase of about 26 percent over system ridership during 1992. Operating expenses for the transit system may be expected to approximate $184,000 during 1992, but may be expected to decline slightly to about $147,000 by 1996 due to the replacement of privately owned operating equipment with publicly owned equipment. Operating deficits for the system may also be expected to decline from about $142,000 during 1992 to about $93,000 by 1996 due to increasing ridership and passenger revenues. City funds required to operate the transit system may also be expected to decline, from about $30,000 during 1992 to about $10,000 during 1996.

The capital projects and expenditures for Subalternative 3B would be the same as those proposed for Subalternative 3A and are shown in Table 40.

Subalternative 3C: Subalternative 3C proposes the operation of a shared-ride taxicab system with days and hours of operation similar to those found on many of the publicly supported shared-ride taxicab systems operated in similar sized Wisconsin communities. Under this subalternative, shared-ride taxicab service would be available on weekdays and Saturdays between the hours of 6:00 a.m. and 10:00 p.m. and also on Sundays and holidays between the hours of 8:00 a.m. and 2:00 p.m.

With service provided seven days a week, the transit service proposed under Subalternative 3C may be expected to generate an annual ridership of about 37,000 revenue passengers during 1992. By 1996, ridership on the transit system may be expected to increase to about 47,000 revenue passengers, or by about 27 percent over ridership generated during its initial year of operation. Operating expenses may be expected to approximate $201,000 during 1992, but may be expected to decline to about $164,000 by 1996 due to the substitution of public equipment for private equipment. With the projected increases in ridership and attendant increases in passenger revenues, the operating deficit for the transit system may be expected to decrease from about $45,000 in 1992 to about $31,000 in 1996. The city share of the operating deficit would also decline, from about $33,000 in 1992 to about $12,000 in 1996.

The capital projects and expenditures for Subalternative 3C would be about the same as those proposed for Subalternative 3A and are shown in Table 40.

Evaluation of Transit Service Alternatives

An evaluative comparison of the alternative transit service plans considered for the West Bend area was conducted on the basis of information about the geographic coverage provided by the transit services proposed under each alternative, the annual ridership and service productivity of the proposed transit services, the projected public costs for each alternative, the efficiency and effectiveness of the proposed transit services, and the potential impacts of each service alternative on existing private transit operations. This comparison of Alternatives 2 and 3, which propose the establishment of new transit services, is summarized in Table 41.

Alternatives 2 and 3 propose that the City of West Bend assume a leading role in remedying deficiencies in the existing transit services through the provision of a publicly subsidized transit service. In this respect, public funds, provided either directly by the City of West Bend or by various state and federal funding programs through the City of West Bend, would permit the provision of either fixed-route bus services or demand-responsive shared-ride taxicab services. A summary of the major differences between these transit services as proposed under Alternatives 2 and 3 is presented in Table 42.

Based on information provided in Table 41 and Table 42, it may be concluded that there are no significant differences between Alternatives 2 and 3 with respect to their geographic coverage of the service area. Both alternatives would be expected to provide virtually complete coverage for the 1990 resident population of the City and excellent coverage of the major traffic generators, areas of proposed new or expanding residential development, and residential concentrations of transit-dependent population groups identified in the study area. The alternatives differ somewhat with respect to the number of facilities used by elderly and disabled persons served, with the taxicab service proposed under Alternative 3 providing better coverage than the fixed-route bus route proposed under Alternative 2. However, a specialized door-to-door transportation service would be available to nonambulatory and semi-ambulatory elderly and disabled persons under Alternative 2, which would provide coverage of elderly and disabled facilities similar to that proposed under Alternative 3.

While serving similar areas, Alternatives 2 and 3 would differ with respect to how transit service would be provided. The fixed-route bus service proposed under Alternative 2 would provide transit service on a regular schedule between bus stops located on fixed routes. Patrons using fixed-route bus service would, consequently, be required to walk to and from their specific trip origin and destination and the bus stop, and possibly to transfer to a second vehicle to complete their trip. Based on the fixed operating schedule, however, patrons would know exactly when and where bus service would be available. In contrast, the shared-ride taxicab service proposed under Alternative 3 would provide service between the specific trip origin and destination of each patron, using a single vehicle. It would, however, require patrons to request service from the taxicab operator in advance of the time service is actually needed, and then to wait for the taxicab.

These alternatives would also differ with respect to the anticipated users of, and annual ridership on, each transit service. For the fixed-route bus service proposed under Alternative 2, the principal users would be expected to be students at elementary and secondary schools who are not eligible for yellow school bus service residing between one and two miles from school and persons residing in low-income households or

Table 41

EVALUATIVE COMPARISON OF ALTERNATIVE TRANSIT SERVICE PLANS PROPOSING NEW TRANSIT SERVICES FOR THE CITY OF WEST BEND

Evaluation Criteria	Transit Service Alternatives					
	Fixed-Route Bus Service			Demand-Responsive Shared-Ride Taxicab Service		
	Subalternative 2A	Subalternative 2B	Subalternative 2C	Subalternative 3A	Subalternative 3B	Subalternative 3C
Geographic Coverage[a]						
Total City Population Served						
Number of Residents Served	24,300	23,900	23,900	24,600	24,600	24,600
Percent of Total City Population	99	97	97	100	100	100
Major Traffic Generators Served						
Shopping Centers	All served	All served	All served	All served	All served	All served
Educational Institutions	All served	All served	All served	All served	All served	All served
Governmental and Public Institutional Centers	All served	2 of 3	2 of 3	All served	All served	All served
Employment Centers	19 of 20	18 of 20	18 of 20	19 of 20	19 of 20	19 of 20
Recreation Areas	10 of 13	9 of 13	9 of 13	11 of 13	11 of 13	11 of 13
Facilities Used by Elderly and Disabled Persons Served						
Elderly Facilities	9 of 16	9 of 16	9 of 16	13 of 16	13 of 16	13 of 16
Disabled Facilities	7 of 13	7 of 13	7 of 13	12 of 13	12 of 13	12 of 13
Residential Concentrations of Transit-Dependent Population Groups Served	All served	All served	All served	All served	All served	All served
Areas of Proposed New or Expanding Residential Development Served	28 of 30	25 of 30	25 of 30	29 of 30	29 of 30	29 of 30
Ridership and Service Productivity						
Total Annual Revenue Passengers In 1996	181,400	161,700	149,900	39,500	43,000	47,000
Annual Revenue Passengers						
Per Revenue Vehicle Hour in 1996	8.8	9.4	9.8	3.7	3.3	3.2
Per Revenue Vehicle Mile in 1996	0.65	0.73	0.75	0.37	0.37	0.36
Per Capita[b] in 1996	6.7	6.0	5.6	1.5	1.6	1.7
Cost[c]						
Operating Expenses, Revenues, and Deficits in 1996						
Operating Expenses	$ 750,300	$ 622,500	$ 558,000	$123,400	$146,600	$163,900
Operating Revenues	102,700	91,300	84,800	49,400	53,800	58,800
Operating Deficit	647,600	531,200	473,200	74,000	92,800	105,100
Local Share of Operating Deficit[d]	170,900	137,500	121,200	5,000	9,500	11,500
Total Operating Expenses, Revenues, and Deficits Between 1992 and 1996						
Total Operating Expenses	$3,939,800	$3,280,800	$2,961,500	$693,100	$808,600	$894,200
Total Operating Revenues	456,200	405,500	376,500	228,200	248,800	272,000
Total Operating Deficit	3,483,600	2,875,300	2,585,000	464,900	559,800	622,200
Total Local Share of Operating Deficit[d]	956,400	778,300	695,300	63,200	86,200	97,400
Total Capital Projects Costs Between 1992 and 1996						
Total Capital Project Costs	$2,148,200	$1,976,700	$1,976,700	$210,800	$210,800	$210,800
Local Share of Capital Project Costs[d]	$ 429,600-$537,000	$ 395,300-$494,200	$ 395,300-$494,200	$ 42,200-$52,700	$ 42,200-$52,700	$ 42,200-$52,700
Average Annual Public Cost						
Total Public Funding Requirement						
Operating Deficit	$ 696,700	$ 575,100	$517,000	$ 93,000	$112,000	$124,400
Capital Costs[e]	146,600	132,300	132,300	40,000	40,000	40,000
Total	$ 843,300	$ 707,400	$ 649,300	$133,000	$152,000	$164,000

Table 41 (continued)

Evaluation Criteria	Transit Service Alternatives					
	Fixed-Route Bus Service			Demand-Responsive Shared-Ride Taxicab Service		
	Subalternative 2A	Subalternative 2B	Subalternative 2C	Subalternative 3A	Subalternative 3B	Subalternative 3C
Cost (continued)						
Local Public Funding Requirement[d]						
Operating Deficit	$ 191,300	$ 155,700	$ 139,100	$ 12,600	$ 17,200	$ 19,500
Capital Costs	$ 29,300-$36,700	$ 26,500-$33,100	$ 26,500-$33,100	$ 8,000-$10,000	$ 8,000-$10,000	$ 8,000-$10,000
Total	$ 220,600-$228,000	$ 182,200-$188,800	$ 165,600-$172,200	$ 20,600-$22,600	$ 25,200-$27,200	$ 27,500-$29,500
Efficiency/Effectiveness						
Total Operating Expense per Revenue Passenger in 1996	$4.14	$3.85	$3.72	$3.12	$3.41	$3.49
Total Operating Deficit per Revenue Passenger in 1996	3.57	3.29	3.16	1.87	2.16	2.24
Local Share of Operating Deficit per Revenue Passenger in 1996	0.94	0.85	0.81	0.13	0.22	0.24
Percent of Operating Expenses Recovered from Operating Revenues in 1966	13.7	14.7	15.2	40.0	36.7	35.9
Potential Impacts on Existing Private Transit Operators	Minimal impacts on existing private taxicab operator, as persons unable to use fixed-route bus service or the associated specialized transit service for disabled persons would still generate a need for taxicab service and the continuation of user-side subsidy program offered by Washington County Office on Aging Possible negative impacts on existing yellow school bus operator due to loss of revenue from parent contracts for students currently using "cold-weather" routes operated by company who would use city fixed-route bus system			Possible negative impacts on existing private taxicab operator if not awarded service contract for city taxicab service Minimal impacts on existing yellow school bus operator as proposed taxicab service would not be expected to attract a large number of student riders		

[a] *Based on existing 1990 population and land use characteristics as identified in Chapter III; and the transit service standards set forth in Chapter II specifying conditions under which residential areas, major traffic generators, and elderly and disabled facilities would be considered as served by public transit services.*

[b] *Based on a projected 1996 population for the City of West Bend of approximately 27,000 persons.*

[c] *All costs are expressed in 1990 constant dollars.*

[d] *Represents local funds required from the City of West Bend.*

[e] *Based on the expected useful life of the operating equipment and facilities included in the capital projects required for each alternative.*

Source: SEWRPC.

with no automobile available to make the desired trips. Typically, a significant proportion of all trips made on fixed-route transit services is for school and work purposes. On the other hand, the users of the shared-ride taxicab services as proposed under Alternative 3 may be expected to be predominantly elderly and/or disabled persons who would use the taxicab service to make trips for nonschool and nonwork purposes such as medical and dental appointments, shopping, personal business, and for social and recreational purposes. It should be noted that a portion of elderly and disabled users of the shared-ride taxicab service provided under Alternative 3 may be expected to use the fixed-route bus service or the supplemental specialized transit service which would be provided under Alternative 2. However, elderly and disabled persons who would not want to walk to a bus stop or who would not qualify for the supplemental specialized transit service would, under Alternative 2, continue to rely on the existing private taxicab service, and the user-side subsidy and red bus programs offered by the Washington County Office on Aging.

A major reason for the difference in user characteristics between the two types of transit service is the difference in the proposed fares. The proposed one-way fares for fixed-route bus service would be $0.75 for adults, $0.50 for students, and $0.35 for elderly or disabled

Table 42

SUMMARY OF MAJOR DIFFERENCES BETWEEN TRANSIT SERVICES PROPOSED UNDER ALTERNATIVES 2 AND 3

Criterion	Differences	
	Fixed-Route Bus Service Proposed Under Alternative 2	Demand-Responsive Shared-Ride Taxicab Service Proposed Under Alternative 3
Geographic Coverage	--	--
Type of Service	Service provided on a regular schedule between bus stops located on fixed routes. Requires patrons to walk between their specific trip origin and destination and the bus stop, and possibly transfer to a second vehicle to complete trip	Service provided between trip origins and destinations using one vehicle. Requires patrons to request service from operator in advance of time service is actually needed and wait for taxicab
Fares		
Adults	$0.75 per one-way trip	$2.00 per one-way trip
Students	0.50 per one-way trip	1.50 per one-way trip
Elderly/Disabled	0.35 per one-way trip	1.00 per one-way trip
Users	Principal users would be city students at elementary and secondary schools who are not eligible for yellow school bus service and persons in low income households, or with no automobile available to make desired trips. Most trips on transit system would be for school and work purposes	Principal users would be elderly and/or disabled persons. Most trips on transit system would be for medical/dental, shopping, personal business, or social/recreational purposes
Annual Ridership and Productivity		
Annual Revenue Passengers in 1996		
Total	149,900-181,400	39,500-47,000
Per Revenue Vehicle Hour	8.8-9.8	3.2-3.7
Per Revenue Vehicle Mile	0.65-0.75	0.36-0.37
Per Capita	5.6-6.7	1.5-1.7
Cost		
Total Operating Deficit in 1996		
Total	$473,200-$647,600	$74,000-$105,100
Per Revenue Passenger	$3.16-$3.57	$1.87-$2.24
Local Share of Operating Deficit in 1996		
Total	$120,200-$170,900	$5,000-$11,500
Per Revenue Passenger	$0.81-$0.94	$0.13-$0.24
Percent of Operating Expenses Recovered from Operating Revenues	13.7-15.2	35.9-40.0
Capital Project Costs		
Total	$1,976,700-$2,148,200	$210,800
Local Share	$395,300-$537,000	$42,200-$52,700
Average Annual Public Cost		
Total	$649,300-$843,300	$133,000-$164,000
Local Share	$165,600-$228,000	$20,600-$29,500

Source: SEWRPC.

persons; the proposed one-way fares for shared-ride taxicab service would be $2.00 for adults, $1.50 for students, and $1.00 for elderly and disabled persons. Fixed-route bus services typically provide for significant passenger-carrying capacity. The fares proposed for fixed-route bus service are intended to be low to appeal to all segments of the population and to encourage frequent or daily use of the transit system. The fares proposed for shared-ride taxicab service would, to an extent, reflect the higher quality of service which would be provided in comparison to fixed-route bus service, that is, transit service would be provided between the user's specific trip origin and destination, as opposed to between fixed bus stop locations. The higher fares would also serve to manage demand for the service relative to available capacity, yet be reasonable enough to encourage use for the trips commonly made by elderly and/or disabled persons, usually on a less than daily basis, for such trip purposes as those noted above. Fares would also be less than those currently charged to the general public by the existing private taxicab operator to encourage trips by the members of the general population who do not have access to an automobile for work travel or other trip purposes.

Accordingly, the fixed-route bus services proposed under Alternative 2 may be expected to generate higher annual ridership than the shared-ride taxicab service. In this respect, annual ridership on the fixed-route bus services may be expected to range from about 150,000 to 181,000 revenue passengers by 1996, representing between six and seven rides per capita, per annum. The effectiveness of the fixed-route transit services was estimated to range from between nine and 10 revenue passengers per revenue vehicle hour and between 0.7 and 0.8 revenue passenger per revenue vehicle mile. These figures are close to, or exceed, the minimum systemwide effectiveness levels of five rides per capita annually, 10 revenue passengers per revenue vehicle hour, and 0.8 revenue passenger per revenue vehicle mile set forth under the transit service objectives and standards presented in Chapter II. In contrast, annual ridership on the shared-ride taxicab services was estimated to range from about 40,000 to 47,000 revenue passengers by 1996, representing slightly fewer than two rides per capita per year. The projected effectiveness levels of the shared-ride taxicab services would be expected to range from between three and four revenue passengers per revenue vehicle hour and about 0.4 revenue passenger per revenue vehicle mile. The projected effectiveness levels would exceed the minimum systemwide effectiveness levels of three rides per revenue vehicle hour and 0.3 ride per revenue vehicle mile, but be somewhat below the level of three rides per capita annually, set forth under the transit service objectives and standards.

The most significant differences between these transit service alternatives are found in their estimated public costs. In this respect, at the end of the planning period, total annual operating deficits for the fixed-route bus services proposed under Alternative 2 may be expected to range from about $473,000 to about $648,000, or from about $3.16 to $3.57 per revenue passenger. This would compare with estimated 1996 total annual operating deficits for the shared-ride taxicab services proposed under Alternative 3 of between $74,000 and $105,000, or $1.80 and $2.24 per revenue passenger. The local share of transit system operating deficit, the portion which would need to be funded by City of West Bend property taxes, may be expected to range from about $120,000 to about $171,000, or from $0.81 to $0.94 per revenue passenger for fixed-route bus service in 1996. These figures compare with the local share of the operating deficit for shared-ride taxicab services in 1996 of between $5,000 and $12,000, or about $0.13 to $0.24 per revenue passenger. The difference in the public funding requirement for the transit services proposed under Alternative 2 and Alternative 3 can be directly attributed to significantly higher operating expenses and lower farebox recovery rates for fixed-route bus services than for shared-ride taxicab services. In this respect, the operating cost per revenue vehicle hour for fixed-route transit service is estimated to be about three times higher than the operating costs per revenue vehicle hour for shared-ride taxicab service. At the same time, the fixed-route transit services proposed under Alternative 2 may be expected to recover only 14 to 15 percent of the operating expenses from operating revenues, compared with a 36 to 40 percent recovery of expenses from revenues for the shared-ride taxicab services proposed under Alternative 3. Minimum farebox recovery rates of 15 percent for fixed-route bus service and 35 percent for demand-responsive transit service were specified in the transit service objectives and standards set forth in Chapter II.

Also significant in relation to the difference in operating costs between the alternatives is the difference in capital expenditures required. The fixed-route bus system proposed under Alternative 2 would require capital expenditures totaling between $1,977,000 and $2,148,000 for necessary operating equipment, including a fleet of heavy-duty urban transit buses, fareboxes, mobile radios, bus stop signs and passenger shelters, and an operating and maintenance facility. Assuming the availability of federal capital assistance grants, City of West Bend tax dollars would be needed to support between about $395,000 and $537,000, or 20 to 25 percent, of the total capital costs. In contrast, the shared-ride taxicab services proposed under Alternative 3 would require a capital expenditure of about $211,000 for a fleet of wheelchair-accessible vans, to serve as taxicabs, and a mobile-radio system. The local share of these costs under federal transit capital assistance programs would range from about $42,000 to $53,000. On an average annual basis, the fixed-route bus system proposed under Alternative 2 would entail a total annual expenditure for operating assistance and capital projects over the planning period of between about $649,000 and $843,000. Funds from the City of West Bend would be needed to support between about $166,000 and $228,000, or between 26 and 27 percent of the total average annual public cost. The share-ride taxicab service proposed under Alternative 3 would require a total average annual expenditure of between $133,000 and $164,000 for capital and operating assistance projects. Of this amount, between $21,000 and $30,000, or 16 to 18 percent, would represent the average annual tax dollars required to be expended by the City of West Bend.

It should be noted that the foregoing discussion assumes the availability of federal transit capital assistance funds under either the Urban Mass Transportation Administration Section 3 discretionary capital assistance grant program, which would provide capital assistance to fund up to 75 percent of the eligible project costs, or under the Urban Mass Transportation Administration Section 18 small urban and rural formula assistance grant program, which would provide capital assistance to fund up to 80 percent of eligible project costs. The availability of federal transit capital assistance for any transit system proposed for the West Bend area cannot be guaranteed. In this respect, grants under the Urban Mass Transportation Administration Section 3 program are made at the discretion of the Secretary of the U. S. Department of Transportation. Competition for the limited amount of Section 3 funds available for projects such as those proposed for the alternative West Bend transit services is high. In light of these factors, the Urban Mass Transportation Administration has indicated that applicants who propose a local matching share significantly greater than the 25 percent required under the program stand a better chance of receiving a Section 3 grant. The limited amount of Urban Mass Transportation Administration Section 18 formula assistance funds currently allocated to the State of Wisconsin also raises questions concerning the use of this program to fund the capital assistance projects proposed under the alternative transit service plans. The current policy of the Wisconsin Department of Transportation in administering the Section 18 program for Urban Mass Transportation Administration in the State is to maximize the use of available funds for operating assistance, with only the funds not needed for operating assistance being made available for capital assistance projects. Inasmuch as the current amount of Urban Mass Transportation Administration Section 18 funds available in the State is not sufficient to fund the full 50 percent of operating deficits allowed under the Section 18 program, no funds are currently available for capital assistance projects under the Section 18 program. Use of the Section 18 program to fund capital projects for proposed West Bend transit services would therefore require either a significant increase in the State's annual allocation of Urban Mass Transportation Administration Section 18 formula assistance funds or a change in the current administrative policy of the Wisconsin Department of Transportation for the Section 18 program. The limitations associated with both federal transit capital assistance programs could require the City of West Bend to fund a significant portion, or possibly all, of the projected capital project expenditures for proposed West Bend area transit services.

It should also be noted that the cost projections for the transit services have been presented in 1990 constant dollars and do not reflect the possible effects of increases in costs due to general price inflation. While general price inflation, based on recent trends in the economy, may be expected to occur, the unpredictable

nature of this factor makes it difficult, if not impossible, to predict accurately its effects on the costs of implementing any proposed transit services for the West Bend area. Inflation could be expected to affect most significantly the costs incurred in the annual operation of the transit system and, therefore, may have the greatest effect on the projected system operating deficit and subsequent local public funding requirements. In this respect, past experience in the transit industry has indicated that operating revenues may be expected to increase at a much slower rate than the increase in operating expenses, since transit operators are often reluctant to raise fares due to the negative effects which fare increases can be expected to have on transit system ridership. The final result of this action is that operating deficits for transit services generally increase at a rate greater than the rate of general price inflation affecting operating expenses. This factor should be considered in reviewing the public costs entailed in the operation of any public transit system proposed for the City of West Bend. This is true in particular where it is desirable in a new system to keep passenger fares constant over the planning period to promote the growth of system ridership.

Inflationary increases in transit system operating expenses and deficits may also be expected to affect the level of federal transit operating assistance funds which would be available to any West Bend transit system over the planning period. In the recent past, the total operating expenses and deficits of Wisconsin transit systems receiving Urban Mass Transportation Administration Section 18 operating assistance funds have increased each year, while the total amount of such funds allocated annually to Wisconsin has remained stable. As a result, the proportion of federal operating deficits of participating transit systems funded with such federal transit operating assistance funds has declined from 50 percent of operating deficits in 1987 to an estimated 29 percent of transit system operating deficits in 1991. No significant increases in the annual allocation of these federal transit operating funds to the State of Wisconsin are expected over the planning period. Consequently, any inflationary increases in the operating deficits of the transit systems participating in the federal Section 18 operating assistance program would result in reduced levels of federal funding for the operating deficits of any West Bend transit system.

In summary, the major advantage of the fixed-route bus service proposed under Alternative 2 would be its ability to provide transit service to all segments of the population at a relatively low cost to the user, and generate a significant level of transit ridership. The major disadvantage of this alternative would be the high public costs for system operation and for needed capital equipment and facilities. The major advantages of the shared-ride taxicab services proposed under Alternative 3 would be the better quality of the transit service provided under this alternative plus the relatively low public costs for system operation and the required capital equipment and facilities. The major disadvantage of this alternative would be its relatively high user costs, which would limit its appeal to, and use by, some segments of the general population, and the lower level of transit ridership it would generate.

The advantages and disadvantages of Alternatives 2 and 3 may be contrasted with those associated with Alternative 1. Alternative 1 assumes that the City of West Bend would do nothing that required an expenditure of city funds to subsidize any type of public transit service, and that the existing levels and utilization of nonsubsidized transit services would continue throughout the planning period. The privately operated local taxicab service, with its high user fares, would continue to be the only local public transit service in the study area available to the general public. Priority population groups would continue to be served by specialized transit services offered by public and private agencies, and would, consequently, continue to experience some restrictions in their mobility as a result of restrictions placed on the use of available services by sponsoring agencies or organizations, or the limited number of, and capacity of, existing service providers.

The major advantage of Alternative 1 is that it would require no significant expenditure of funds by the City of West Bend, although some public expenditures would still be necessary to support specialized transit programs, such as the user-side subsidy program offered by the Washington County Office on Aging in the City of West Bend. During 1991, the Office on Aging has budgeted approximately $16,000 in state and county funds for this program. The major disadvantage of this alternative is that it does nothing to alleviate the deficiencies associated with the existing transit services available for use by the general public as well as priority

population groups. In this respect, the lack of transit service providers capable of effectively serving both the general public and the transit-dependent segments of the population would continue to result in a low level of use by the city population of the nonsubsidized transit services available.

Recommendations

Based on the preceding comparative evaluation, it may be concluded that either fixed-route or shared-ride taxicab transit services would be feasible for implementation in the West Bend area. Both alternatives would generate reasonable transit ridership levels and would have a reasonable operating subsidy per passenger for the respective types of transit service proposed. In this respect, the ridership and financial performance of the fixed-route and shared-ride taxicab transit services would fall within the range of ridership and financial performance observed on fixed-route and shared-ride taxicab transit services operated in other communities in Wisconsin similar in size to the City of West Bend. However, there are substantial differences between the fixed-route and shared-ride taxicab transit services proposed. Table 43 summarizes these differences in terms of the relative major advantages of each alternative.

The major advantage of the fixed-route transit service would be its ability to serve a greater range of user markets and, consequently, generate significantly higher annual ridership, than shared-ride taxicab service. By 1996 ridership with the fixed-route transit service may be expected to range from about 150,000 to 181,000 revenue passengers per year, compared with from 40,000 to 47,000 revenue passengers per year with shared-ride taxicab service. Fixed-route bus service may thus be expected to generate roughly four times as large a ridership as shared-ride taxicab service. Both alternative transit services may be expected to be able to equally serve the tripmaking needs of elderly and/or disabled persons, persons residing in low-income households, and persons in households with limited access to an automobile. The fixed-route transit service proposed under Alternative 2, however, would also be expected to be used for school trips made by students at elementary and secondary schools who are not eligible for yellow school bus service and who reside between one and two miles from school, in addition to some work trips made by the general population.

The major advantage of the shared-ride taxicab service is the substantially lower public cost. The total average annual public cost for both operating subsidies and capital expenditures under the shared-ride taxicab service alternative would be expected to range from about $133,000 to $164,000 per year over the planning period, with the local share of these average annual costs expected to range from about $21,000 to $30,000. By way of comparison, the total average annual public cost under the fixed-route transit service alternative would be expected to range from about $649,000 to $843,000 per year over the planning period, with the local share of these costs expected to range from about $166,000 to $228,000 per year.[2] The total public costs of the shared-ride taxicab service proposed under Alternative 3 would thus be five to six times less than the costs of the fixed-route transit service proposed under Alternative 2. The local share of the total public costs would be seven to eight times less than the local costs of fixed-route transit service.

There would also be some other differences between the fixed-route and shared-ride taxicab transit service alternatives regarding fares and service quality. Users in all markets could expect to pay significantly lower fares for trips made on fixed-route transit service, that is, one-way fares of $0.75 per adult, $0.50 per student, and $0.35 for elderly and disabled persons, compared to one-way fares of $2.00 for adults, $1.50 for students, and $1.00 for elderly and disabled persons for shared-ride taxicab trips. Whereas users of the shared-ride taxicab service would be

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[2] *As previously noted, the above costs assume no changes in fares, operating expenses, or federal and state operating assistance levels over the planning period. While passenger fares and state aid levels could be expected to remain stable, modest increases in transit system operating expenses, along with declines in federal transit operating assistance levels, could be expected to occur, based on recent trends. This could result in a total average annual public cost for the shared-ride taxicab service alternative of between $157,000 and $196,000, with the local share of these costs ranging from $35,000 to $49,000. In comparison, the total average annual public cost for the fixed-route transit service alternative would be expected to be between $775,000 and $985,000, with the local share of these costs ranging from $237,000 to $324,000.*

Table 43

SUMMARY OF MAJOR ADVANTAGES OF TRANSIT SERVICES PROPOSED UNDER ALTERNATIVES 2 AND 3

Criterion	Alternative 2 Fixed-Route Transit Service	Alternative 3 Shared-Ride Taxicab Service
Users	Would serve a greater range of user markets than shared-ride taxicab service, including not only trips made by elderly and disabled persons and persons in households with low total incomes and limited automobile availability served by shared-ride taxicab service, but also school trips made by students not eligible for yellow school bus service and work trips made by the general public. As a result, fixed-route bus service may be expected to generate more annual ridership than shared-ride taxicab service (149,900 to 181,400 revenue passengers per year versus 39,500 to 47,000 revenue passengers per year with shared-ride taxicab service)	--
Fares	Would have significantly lower user fares than shared-ride taxicab service ($0.75 for adults, $0.50 for students, and $0.35 for elderly and disabled persons versus $2.00 for adults, $1.50 for students, and $1.00 for elderly and disabled persons with shared-ride taxicab service)	--
Public Cost	--	Would have significantly lower public funding requirements than fixed-route bus service (total average annual public cost for operating subsidies and capital expenditures of $133,000 to $164,400 versus $649,300 to $843,300 with fixed-route bus service; local share of total average annual public cost for operating subsidies and capital expenditures of $20,600 to $29,500 versus $165,600 to $228,000 with fixed-route bus service)
Service	--	Would provide a better quality of service than fixed-route transit service (service provided between specific trip origins and destinations with a single vehicle versus service provided between bus stops, with passengers walking to and from specific trip origins and destinations and, possibly, transferring to a second vehicle with fixed-route bus service)
Efficiency	--	Would have lower average annual cost per revenue passenger than fixed-route bus service (total average annual public costs per revenue passenger of $3.10 to $3.77 versus $4.86 to $5.21 with fixed-route bus service; local share of total average annual public costs per revenue passenger of $0.56 to $0.68 versus $1.24 to $1.41 with fixed-route bus service)

Source: SEWRPC.

able to use a single vehicle to travel between their specific trips origin and destination, users of the fixed-route transit service would be required to walk to and from their specific trip origin and destination and the closest bus stop, and possibly to transfer to a second vehicle to complete their trip.

Shared-ride taxicab service may also be expected to have somewhat lower costs per revenue passenger, with the total average annual public cost per revenue passenger and a local average annual public cost per revenue passenger of $3.10 to $3.77 and $0.56 to $0.68, respectively. In comparison, fixed-route bus service may be expected to have a total average annual public cost per revenue passenger and a local average annual cost per revenue passenger of $4.86 to $5.21 and $1.24 to $1.41, respectively.

In conclusion, the results of the analysis and evaluation of the transit service alternatives would indicate that either fixed-route or shared-ride taxicab transit services could be feasibly implemented in the West Bend area. The decision concerning which transit service alternative should be recommended for implementation should be based on what the West Bend community believes to be the appropriate market served by, and the appropriate costs for, public transit service. If it is believed that transit service should be provided to serve all potential markets at a relatively low cost to the user, and if the public costs entailed in serving these markets are viewed as acceptable to the community, then the alternative proposing fixed-route transit service should be considered for implementation. If, on the other hand, the local community believes that less public funds should be spent on public transit service, and that the transit service provided should be focused on serving the elderly and disabled transit-dependent segments of the population who are most in need of it, then the alternative proposing shared-ride taxicab service should be considered for implementation.

Following extensive Advisory Committee discussion concerning the findings of the evaluation of the transit service alternatives, the Committee unanimously recommended that the demand-responsive shared-ride taxicab service proposed under Alternative 3 be considered for implementation by the City of West Bend. Based upon the strong support for shared-ride taxicab service expressed by Committee members during consideration of this recommendation, the Committee believes this recommendation deserves careful consideration by the Mayor and Common Council. In making its recommendation for the provision of shared-ride taxicab service, the Advisory Committee indicated that maintaining the existing level of transit service as proposed under Alternative 1 would not be adequate for the City of West Bend. The Advisory Committee expressed their concern over the significantly higher costs entailed in establishing a fixed-route transit system in the City of West Bend, particularly in light of the potential for limited federal capital assistance funds to support the substantial capital expenditures required. The Advisory Committee also recognized the higher quality of the service which would be provided with shared-ride taxicab service and the important role this service could play in helping foster independent living for both elderly and disabled persons in the West Bend area. Finally, the Advisory Committee indicated that shared-ride taxicab service would represent a sound initial step in the provision of public transit service in the City of West Bend, and could ultimately lead to the establishment of fixed-route transit service in corridors where actual demand indicated such service would be warranted.

The Advisory Committee also unanimously recommended the provision of shared-ride taxicab service seven days a week, as proposed under Subalternative 3C. In making this recommendation, the Advisory Committee recognized the needs of elderly and disabled users of existing specialized transportation services, as well as the general public, for transit service during evenings and also on Sundays. In addition, while endorsing the basic fare structure assumed in the evaluation of alternatives, the Advisory Committee indicated that the City should give consideration to increasing the subsidy levels for the recommended shared-ride taxicab service in order that it could be provided at the lower one-way fares of $1.50 for adults, $1.00 for students, and $0.75 for elderly or disabled persons. The Committee believed that such lower fares would encourage more transit ridership, and that the resultant increase in the annual operating subsidy required from the City for providing the service with lower fares would not result in an unmanageable public funding requirement for the City of West Bend.

SUMMARY

This chapter has presented alternative courses of action which could be taken in response to the current need for public transportation in the study area. This need stems from the major deficiency in the existing level of public transit service, namely, a lack of transit service providers capable of effectively serving both the general public and the transit-dependent segments of the population. In order to evaluate fully the feasibility of providing improved transit service in the West Bend study area, a number of alternative management structures and operational techniques for this service were examined and evaluated.

The management structures for public transit services examined included: 1) municipal ownership and operation of the transit system, 2) municipal ownership of the transit system and operation through a competitively awarded contract with a private management firm, and 3) private ownership of the transit system and operation through a competitively awarded contract with a private transit operator. After considering the major advantages and disadvantages of each management structure, the Advisory Committee recommended that the transit system be operated by a private transit operator selected on the basis of competitive bids. Contracting for transit services in this manner would relieve the City of the details of day-to-day system management and operation, thereby minimizing city personnel requirements. In addition, since the vast majority of transit system operating expenses would be subject to a competitive bidding process, competition among interested transit operators for the service contract could provide some economies in the annual operating expenditures for transit service.

The Committee also recommended that the equipment and facilities needed to operate any transit system ultimately be purchased and owned by the City of West Bend and leased back to the private transit operator to provide the proposed transit services. This recommendation recognized that city ownership of the necessary operating equipment would provide for better control over equipment selection and ensure that appropriate equipment and facilities would be used in operating the transit system. In addition, city ownership of the necessary equipment could result in more competition for the contract, since it would remove some risk to private operators associated with supplying operating equipment. Finally, this recommendation recognized that purchase of the necessary capital equipment and facilities by the City with public funds could be easier than purchase by the private operator using his own financial resources. This is because of potential availability to the City of federal transit capital assistance funds.

Three basic transit service alternatives were evaluated for the West Bend area: 1) do nothing to encourage or support improved local transit services, 2) provide a fixed-route transit service, and 3) provide demand-responsive transit service. It was assumed that operation of any proposed new transit system would begin at the start of calendar year 1992, the earliest that state and federal operating assistance funds could be obtained to help defray operating expenses. Meeting this start-up date required other key assumptions, including that the private transit operator would initially be responsible for supplying the operating equipment and facilities needed to initiate transit system operation. This assumption recognized that acquisition of the necessary operating equipment by the City using federal transit capital assistance funds would take up to two years, so that publicly purchased equipment probably would not be available until 1994. To allow for comparison among alternatives, all financial projections were presented in 1990 constant dollars.

The first transit service alternative considered in the study, Alternative 1, was a continuation of the present situation. Under this status quo alternative, the City would do nothing that would require the expenditure of public funds to subsidize any type of public transit service. A privately operated local taxicab service would continue to be the only local transit service available to the general public in the study area. Specialized transit services for priority population groups would continue to be offered by public and private agencies and organizations. The cost of providing these services would continue to be supported through the fares charged for their use and through the budgets of the sponsoring public and private agencies.

Under the second transit service alternative considered, Alternative 2, a fixed-route transit service would be established in the City of West Bend. Fixed-route transit service would be

provided using cycle scheduling over a system of radial, or loop, routes, with all vehicles serving each route meeting at regular intervals at a common transfer point in the central business district. Service would be provided over all routes at 40-minute headways during all hours of operation. It was assumed that one-way user fares of $0.75 for adults, $0.50 for students, and $0.35 for elderly and disabled persons would be established. It was also assumed that 25- to 30-foot-long heavy-duty transit buses would be used to provide fixed-route transit service, with all buses being wheelchair-accessible to accommodate disabled persons in accordance with current federal regulations. In addition to fixed-route bus service, accessible specialized transportation service would also be provided for disabled individuals unable to use the accessible equipment operated on the regular transit routes. Three subalternatives representing different levels of coverage of the service area and periods of operation were considered.

- Under Subalternative 2A, the transit system would consist of six bus routes providing good service area coverage of all existing and proposed areas of residential, commercial, and industrial development in the City of West Bend. Transit service would be provided over these routes on weekdays from 6:00 a.m. to 6:00 p.m., and on Saturdays from 9:00 a.m. to 4:00 p.m. Annual ridership under this subalternative would be expected to approximate 128,000 revenue passengers by the end of the first year of operation in 1992 and to increase by nearly 41 percent to about 181,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be expected to decrease over the five year planning period with increases in ridership from about $223,000 in 1992 to about $171,000 by 1996. The capital expenditures which would be incurred under this subalternative for the purchase of eight buses plus other operating equipment would total about $2,148,000. Assuming that federal transit capital assistance funds would be available to offset up to 80 percent of these capital costs, the city share of the required costs would approximate $430,000.

- Under Subalternative 2B, the transit system would consist of five fixed bus routes operated during the same weekday and Saturday service hours as proposed for Subalternative 2A. Transit service area coverage under this subalternative would be somewhat less extensive than under Subalternative 2A, since bus routes would not serve some areas of new residential and commercial development in the western and southwestern portions of the City. Annual ridership under this subalternative would be expected to approximate 115,000 revenue passengers by the end of the first year of operation in 1992, and to increase by nearly 42 percent to about 162,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be expected to decrease over the five year planning period with increases in ridership from about $184,000 during 1992 to about $138,000 during 1996. The capital expenditures which would be incurred under this subalternative for the purchase of seven buses and other operating equipment would total about $1,977,000. Assuming that federal transit capital assistance funds would be available to offset up to 80 percent of these total capital costs, the city share of the required capital costs would approximate $395,000.

- Under Subalternative 2C, the transit system would consist of the same five-route bus system proposed for operation under Subalternative 2B, but service would be restricted to weekdays only from 6:00 a.m. to 6:00 p.m., with no service provided on Saturdays. Annual ridership under this subalternative would be expected to approximate 105,000 revenue passengers by the end of the first year of operation in 1992, and to increase by about 43 percent to about 150,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be expected to decrease over the five year planning period with increases in ridership from about $167,000 in 1992 to about $121,000 by 1996. The capital projects and expenditures for Subalternative 2C would be about the same as those proposed for Subalternative 2B.

The third transit service alternative considered, Alternative 3, would provide a demand-responsive transit service for the general public through the operation of a publicly subsidized shared-ride taxicab system. The major difference

between the proposed shared-ride taxicab service and the current private taxicab service would be that passengers with different trip origins and destinations would be allowed to share a taxicab vehicle for all or portions of the trip, assuming a change in the current City ordinance. For analytical purposes, it was assumed that one-way fares of $2.00 for adults, $1.50 for students, and $1.00 for elderly and disabled persons would be charged. It was also assumed that a fleet of wheelchair-accessible vans would be needed to serve as taxicabs for the shared-ride taxicab service to comply with current federal requirements prescribing accessibility standards for disabled persons. The service provided under this alternative would provide complete coverage of all existing and proposed areas of residential, commercial, and industrial development in the City of West Bend. Three subalternatives representing different periods of operation of the shared-ride taxicab system were considered:

- Under Subalternative 3A, shared-ride taxicab service would be provided on weekdays from 6:00 a.m. to 6:00 p.m., and on Saturdays from 9:00 a.m. to 4:00 p.m. Annual ridership under this subalternative would approximate 31,000 revenue passengers by the end of the first year of operation in 1992, and increase by about 29 percent to about 40,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be expected to decrease over the five year planning period with increases in ridership from about $25,000 in 1992 to about $5,000 in 1996. The capital expenditures which would be incurred under this subalternative for six van-type taxicab vehicles and other operating equipment would total about $211,000. Assuming that federal transit capital assistance funds would be available for up to 80 percent of the total capital cost, the city share of the required capital costs would be expected to approximate $42,000.

- Under Subalternative 3B, shared-ride taxicab service would be provided on weekdays and on Saturdays from 7:00 a.m. to 9:00 p.m. Annual ridership under this subalternative would be expected to approximate 34,000 revenue passengers by the end of the first year of operation in 1992, and to increase by about 26 percent to about 43,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be expected to decrease over the five year planning period with increases in ridership from about $30,000 in 1992 to about $10,000 in 1996. The capital projects and expenditures for Subalternative 3B would be about the same as for Subalternative 3A.

- Under Subalternative 3C, shared-ride taxicab service would be provided on weekdays and Saturdays from 6:00 a.m. to 10:00 p.m. and also on Sundays and holidays from 8:00 a.m. to 2:00 p.m. Annual ridership under this subalternative would be expected to approximate 37,000 revenue passengers during 1992, and to increase by about 27 percent to about 47,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be expected to decrease over the five year planning period with increases in ridership from about $33,000 in 1992 to about $12,000 in 1996. The capital projects and expenditures for Subalternative 3C would be about the same as those proposed for Subalternative 3A.

The results of the analysis and evaluation of the transit service alternatives considered indicated that institution of either fixed-route or shared-ride taxicab transit services would be feasible in the West Bend area. The analyses indicated that the ridership and financial performance of both the fixed-route and shared-ride taxicab transit services may be expected to fall within the range of ridership and financial performance observed on similar transit systems operated in other communities in Wisconsin.

The comparative evaluation of the alternative fixed-route and shared-ride transit services considered was based on service area coverage, annual ridership, service productivity, projected public costs, and service efficiency and effectiveness. The major differences between the alternatives and the major advantages of each alternative service plan were identified. The major advantage of the fixed-route transit service was found to be its ability to serve a greater range of user markets and, consequently, generate significantly higher annual ridership levels than shared-ride taxicab service. Fixed-route bus service may be expected to generate three to four times the ridership which may be expected under a shared-ride taxicab service. The major advantage of the shared-ride taxicab

service was found to be the substantially lower public cost. The total public costs for the shared-ride taxicab service may be expected to be one-fifth to one-sixth those of the fixed-route service; while the local share of the total public costs may be expected to be from one-seventh to one-eighth of the local costs of fixed-route transit service.

Other differences were also noted between the fixed-route and shared-ride taxicab transit service alternatives with respect to fares and service quality. Given the levels of public subsidy assumed, users in all markets could expect to pay significantly lower fares for trips made on fixed-route transit service. A higher quality of service would, however, be provided to users of the shared-ride taxicab service. Shared-ride taxicab service was also expected to have somewhat lower costs per revenue passenger than fixed-route bus service.

After careful review of the comparative evaluation of the alternative systems considered, the Advisory Committee recommended adoption of the shared-ride taxicab system. In making this recommendation, the Advisory Committee indicated they were strongly influenced by the higher quality of service associated with the shared-ride taxicab service alternatives well as by the lower costs associated with that alternative. More specifically, the Advisory Committee unanimously recommended that the shared-ride taxicab service provided should be that defined under Subalternative 3C of this report. That subalternative would provide for operation of the proposed shared-ride taxicab system seven days a week, with hours of operation on weekdays and Saturdays proposed to be 6:00 a.m. to 10:00 p.m.; and on Sundays and holidays proposed to be 8:00 a.m. to 2:00 p.m. In making this recommendation, the Advisory Committee recognized not only that this subalternative would provide more service than the other shared-ride taxicab subalternatives considered, but also that it would require more public subsidy for annual operation. In addition, while endorsing the basic fare structure assumed in the evaluation of alternatives, the Advisory Committee recommended that the City consider providing the recommended shared-ride taxicab service with lower one-way fares of $1.50 for adults, $1.00 for students, and $0.75 for elderly or disabled persons. While these fares would require a higher level of local subsidy, they would also serve to encourage more ridership on the transit system.

Chapter VIII

RECOMMENDED TRANSIT SYSTEM DEVELOPMENT PLAN

INTRODUCTION

Alternative transit system management structures and transit service system plans for the City of West Bend considered by the West Bend Mass Transportation Citizens and Technical Coordinating and Advisory Committee were described in Chapter VII of this report. Based upon careful evaluation of these alternatives, the Advisory Committee recommended that the City of West Bend establish a publicly supported transit system to address identified deficiencies in the existing level of transit services in the West Bend area. More specifically, the Advisory Committee recommended that the City of West Bend provide demand-responsive transit service through the publicly directed and financed operation of a shared-ride taxicab system. The Advisory Committee also recommended that shared-ride taxicab service be provided seven days a week, as proposed under Subalternative 3C, described in Chapter VII of this report. To provide the service the Committee recommended that the City competitively contract with a private taxicab operator. That operator would provide the desired service using publicly owned equipment purchased by the City and leased to the operator.

This chapter describes a recommended transit system development plan for the City for a five-year period extending from 1992 through 1996. The first section of the chapter presents a description of the recommended shared-ride taxicab service for the City of West Bend. Included in this section are recommendations concerning the operating characteristics and fare schedule of, and ownership and management structure for, the shared-ride taxicab system, along with a description of the projected system ridership, required capital improvements, and recommended marketing efforts.

The second section presents a description of the public financial commitment which will be required to implement the recommended system. This section includes information concerning the projected financial performance of the transit system, the required capital expenditures, and the attendant public funding required from the City of West Bend and other sources needed to assure system implementation.

The third and final section of the chapter presents a description of the actions required by various agencies to achieve plan implementation. Included in this final section is a description of the actions which should be taken to secure community approval of the recommended plan, along with adoption of the plan by other various state and local agencies or units of government. In addition, the steps required to procure the recommended taxicab services from a private transit operator and the actions needed to prepare a program budget and applications for state and federal transit assistance are also described.

RECOMMENDED SHARED-RIDE TAXICAB SERVICE

The recommended transit system development plan calls for the establishment of a publicly supported demand-responsive transit system in the West Bend area providing service to the general public. The recommended demand-responsive transit service would be provided through the operation of a publicly subsidized, shared-ride, taxicab system. This service would be provided by a private transit operator under contract to the City of West Bend. Descriptions of the recommended operating characteristics, management structure, projected ridership, capital equipment needs, and marketing efforts for the proposed transit system follow.

Operating Characteristics

The recommended shared-ride taxicab service would be similar in some respects to the private taxicab service currently provided in the City of West Bend. Prospective users would place their request for service by telephoning the contract taxicab operator. A vehicle would be scheduled to pick up the user within a maximum waiting period of 30 minutes. Upon reaching the destination, users could leave instructions with the driver for a return trip at a specified time. A summary of the selected operating characteristics of the recommended shared-ride taxicab system is presented in Table 44.

currently provided in the City principally with respect to the sharing of the taxicab vehicle by patrons with different trip origins and destinations. In this respect, the existing private taxicab operator is currently prohibited by city ordinance from carrying passengers with different trip origins and destinations unless permission is given by the first passenger served. Under a shared-ride taxicab operation, the taxicab operator is legally able to simultaneously transport passengers having different trip origins and destinations. The sharing of taxicab vehicles in this manner provides for better equipment utilization, which leads to a more efficient and less costly operation. Although sharing of the taxicab vehicle in this manner would be allowed, experience elsewhere in Wisconsin indicates that no more than two to three trip requests would typically be scheduled to be served by the same taxicab vehicle. Potential delays which could be caused by serving multiple trip requests with the same vehicle would therefore be minimized. The City would need to revise its current taxicab ordinance to allow for shared-ride taxicab operation.

The recommended taxicab service would initially be provided as a many-to-many type of service—that is, it would provide service between any trip origin and destination in the City without limitation. The service could, however, be changed over time on the basis of operating experience and actual travel demand to provide for other services such as many-to-one, many-to-few, and subscription service serving major trip generators. The service could over time evolve into a fixed-route bus system in high transit travel demand corridors. Such corridors would be identified through actual operating experience with the shared-ride taxicab operation.

In the interests of equity, careful consideration will need to be given to the definition of the service area for the recommended shared-ride taxicab system. Clearly, the taxicab system should serve the trips made between origins and destinations within the corporate limits of the City of West Bend, as serving the travel needs of city residents is the primary reason for the establishment of the transit system. In addition, the City may also want to consider serving trips made by City residents to and from locations at a reasonable distance outside the City of West Bend corporate limits, such as would be included in the service area shown on Map 17. Serving

Table 44

PROPOSED OPERATING CHARACTERISTICS OF THE RECOMMENDED SHARED-RIDE TAXICAB SERVICE FOR THE CITY OF WEST BEND

Characteristic	Recommended Shared-Ride Taxicab Service
Service Area	City of West Bend and immediate environs
Service Levels	
Days and Hours of Operation	
Weekdays	6:00 a.m. to 10:00 p.m.
Saturdays	6:00 a.m. to 10:00 p.m.
Sundays and Holidays	8:00 a.m. to 2:00 p.m.
Response Time[a]	30 minutes
Vehicle Requirements	
For System Operation	
Weekdays	4
Saturdays	3
Sundays and Holidays	2-3
Total Fleet[b]	6

[a]Maximum time to dispatch a vehicle to respond to a trip request.

[b]Includes vehicles needed for spares.

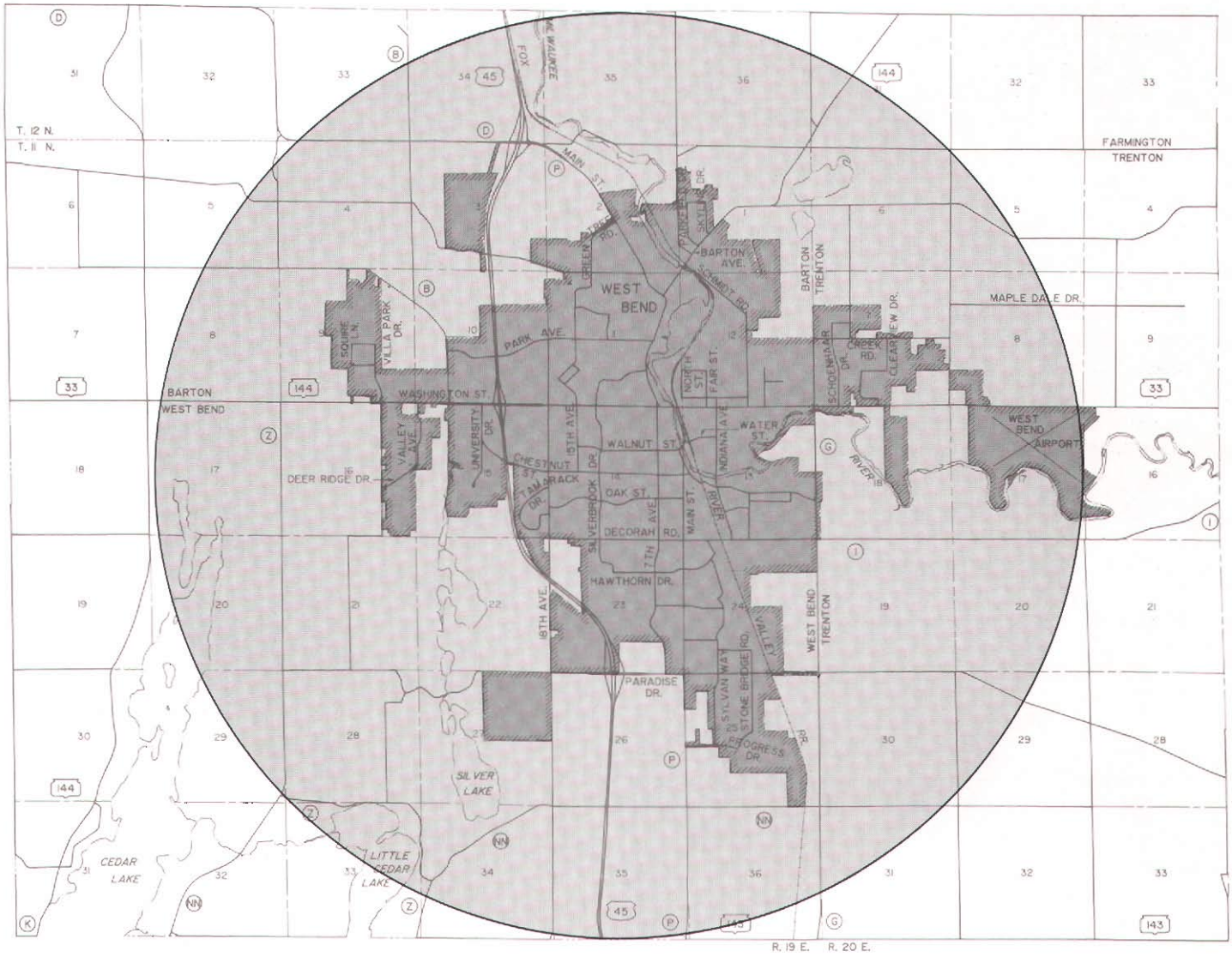
Source: SEWRPC.

such trips would be reasonable, as city residents would be financially supporting the operation of the transit system. Higher fares should be charged for such trips to reflect the potentially higher taxicab mileage which could be expected to result from serving internal-external trips, when compared to serving internal trips within the City of West Bend. However, a method would need to be developed to validate that only the internal-external and return trips of city residents were being served.

The City may also expect to receive requests from noncity residents in the areas immediately surrounding the City for service for trips made to and from locations in the outlying areas and the City. Included among such requests would be trips made by noncity residents to places of employment, shopping areas, medical offices, and other businesses located within the City. Serving these trips could be considered as desirable by the City as they could benefit city business establishments, even though they would serve noncity residents who do not contribute local tax dollars to support operation of

Map 17

PROPOSED SERVICE AREA FOR RECOMMENDED SHARED-RIDE TAXICAB SERVICE FOR THE CITY OF WEST BEND



LEGEND

PROPOSED SERVICE AREA

WITHIN THE CITY OF WEST BEND CORPORATE LIMITS

OUTSIDE THE CITY OF WEST BEND CORPORATE LIMITS

GRAPHIC SCALE

0 2000 4000 8000 FEET

Source: SEWRPC.

the transit system. In the interest of equity, higher fares would also need to be charged for these trips. The City may also expect to get trip requests from noncity residents for travel between origins and destinations located entirely outside the City. The City could consider leaving such trip requests unserved, since they would be made by residents of areas not contributing to the local costs of system operation and would be of no benefit to city business establishments.

After careful consideration of the issues concerned, the Advisory Committee recommended that shared-ride taxicab service should be provided to serve all trips made entirely between origins and destinations within the corporate limits of the City of West Bend, as well as trips made by both residents and nonresidents of the City between locations inside the City and locations in the immediately surrounding areas outside the City. The Committee also agreed that, in the interest of equity, higher fares should be charged for trips made to and from locations outside the City. The Advisory Committee recommended that trips with origins and destinations entirely outside the City should not be served by the taxicab system.

It is recommended that the proposed transit system be operated initially seven days per week, Sunday through Saturday, including holidays. Normal service hours for the shared-ride taxicab system would be 6:00 a.m. to 10:00 p.m. Mondays through Saturdays, and 8:00 a.m. through 2:00 p.m. on Sundays and holidays. Changes to these service hours to possibly provide for longer hours on Friday and Saturday evenings, and different hours on holidays, could be considered after service has been initiated and the demand for different hours can be assessed.

Fares

Fares are among the most sensitive elements of transit services, and an important determinant of the public perceptions concerning such services. Motorists, although aware of the costs incurred for motor fuel, can travel from interstate highways to county roads to city streets without being fully cognizant of the financial outlays required to construct and maintain the street and highway systems being used. In contrast, the transit user is reminded of the cost of his journey each time the fare is paid for a trip.

The fare structure recommended by the Advisory Committee for the recommended shared-ride taxicab service is presented in Table 45. It is recommended that base one-way cash fares for use of the shared-ride taxicab service be established at $2.00 per one-way adult trip, with lower fares of $1.50 for students and $1.00 for elderly or disabled persons. No charge would be assessed for children four years of age and under accompanied by an adult passenger. It is also recommended that lower fares be charged to a group of passengers traveling between the same trip origin and destination, with such fares being only two-thirds to three-quarters the regular fares charged. For trips with origins or destinations outside the City of West Bend corporate limits, it is recommended that an additional cost of $1.00 per mile be assessed per vehicle trip for the distance traveled outside the city limits. Finally, it is recommended that special convenience fares, which would provide substantial discounts from the regular cash fares, be established to encourage use of the shared-ride taxicab system. Such special fares could include trip coupon books or punch passes which would enable users to make 10 one-way trips for the cost of seven trips at the base one-way cash fare. It is also recommended that the City give consideration to allowing the shared-ride taxicab operator to provide for pick-up and delivery of small packages during system off-peak hours to provide an additional source of revenue for the transit system, with the charges established for this service sufficient to cover the total costs associated with the provision of the service.

In recommending endorsement of the shared-ride taxicab service with the aforedescribed fare structure, the Advisory Committee expressed concern over the relatively high fares which might be charged for shared-ride taxicab service in comparison with the relatively low fares which might be charged for fixed-route bus service. The Advisory Committee, consequently, suggested that the City give consideration to increasing the subsidy level for the recommended shared-ride taxicab service so that it could be provided at the lower one-way fares of $1.50 for adults, $1.00 for students, and $0.75 for elderly or disabled persons. The Committee believed that the proposed lower fares could make the service more attractive to the general public, thereby encouraging more transit rider-

Table 45

RECOMMENDED FARE STRUCTURE FOR THE RECOMMENDED SHARED-RIDE TAXICAB SERVICE FOR THE CITY OF WEST BEND

Fare Category	One-Way Cash Fares			Prepaid 10-Trip Coupon Book or Punch Pass[c]
	Within City Limits	Additional Riders Portal-to-Portal[a]	Outside City Limits[b]	
Adults (age 18 to 64)	$2.00	$1.25	$1.00 per mile	$14.00
Students (age 5 through high school)	1.50	1.00	$1.00 per mile	10.50
Elderly (age 65 and older)	1.00	0.75	$1.00 per mile	7.00
Disabled	1.00	0.75	$1.00 per mile	7.00
Children (age 4 and under when accompanied by an adult)	Free	Free	--	--
Deliveries (off-peak hours only)	4.00[d]	--	$1.00 per mile	--

[a]*After highest regular cash fare is paid. Subject to capacity of taxicab vehicle.*

[b]*Per vehicle trip for distance outside city limits.*

[c]*Provides for 10 one-way trips at the cost of seven trips based on one-way cash fares for travel within city limits. Patrons would still be responsible for additional rider fares and mileage charge for trips made outside city limits.*

[d]*The charge for package delivery should be sufficient to cover the total costs of the taxicab trip. A charge of $4.00 approximates the cost of a trip of average length within the West Bend area at the projected 1992 operating cost per vehicle mile for the taxicab system.*

Source: SEWRPC.

ship. The resulting higher operating deficits and city funding requirements would still be manageable based on the relatively low subsidies which had been projected under the recommended higher transit fares.

A comparison of the ridership and financial performance of the transit system with the recommended fare structure and the lower fares proposed by the Advisory Committee for consideration by the City is presented in Table 46. Under the proposed lower fares, projected 1996 ridership may be expected to increase by about 12 percent over ridership levels under the recommended higher fares; and the local operating subsidy needed in 1996 from the City of West Bend may be expected to increase by about 90 percent, expressed in constant 1990 dollars. The increased ridership would require higher service levels than previously assumed, but it is not envisioned that additional operating equipment would be needed.

Ridership Projections

Upon full implementation of the proposed system in 1992, the transit system may be expected to generate an annual ridership of about 37,000 revenue passengers. By 1996, annual ridership on the transit system may be expected to increase to about 47,000 revenue passengers, or by about 27 percent over ridership during its initial year. Projected increases in transit ridership may be expected to result in a steady increase in vehicle productivity from about 2.5 revenue passengers per revenue vehicle hour in 1992 to about 3.2 passengers per hour in 1996. The annual ridership per capita for the system may also be expected to increase, from about 1.5 passengers in 1992 to about 1.7 passengers in 1996. The projections of system ridership and service productivity are presented in Table 47.

Ownership and Management

After examining a number of alternative management structures for the provision of public

Table 46

PROJECTED RIDERSHIP AND FINANCIAL PERFORMANCE OF THE RECOMMENDED SHARED-RIDE TAXICAB SYSTEM UNDER DIFFERENT FARE STRUCTURES

Characteristic	Projected Ridership and Financial Performance			
	Assuming Recommended Fare Structure[a]		Assuming Proposed Lower Fares[b]	
	1992	1996	1992	1996
Service Provided				
Total Vehicle Hours	14,590	14,570	15,510	15,500
Total Vehicle Miles	120,600	130,900	128,700	139,800
Ridership				
Annual Revenue Passengers	37,100	47,000	41,600	52,800
Cost[c]				
Annual Operating Expenses	$201,400	$163,900	$211,800	$174,400
Annual Operating Revenues	46,400	58,800	38,600	48,900
Annual Operating Deficit				
Federal Share[d]	45,000	30,500	50,200	36,400
State Share[e]	77,500	63,100	81,500	67,100
Local Share	32,500	11,500	41,500	22,000
Total	$155,000	$105,100	$173,200	$125,500
Effectiveness/Efficiency				
Annual Revenue Passengers				
Per Revenue Vehicle Hour	2.5	3.2	2.7	3.4
Per Revenue Vehicle Mile	0.31	0.36	0.32	0.38
Per Capita[f]	1.5	1.7	1.6	2.0
Total Expense per Passenger	$5.43	$3.48	$5.09	$3.30
Total Revenue per Passenger	1.25	1.25	0.93	0.93
Total Deficit per Passenger	4.18	2.23	4.16	2.37
Percent of Expenses Recovered Through Operating Revenues	23.0	35.9	18.2	28.0

[a]Assumes cash fares per one-way trip of $2.00 for adults; $1.50 for students; and $1.00 for elderly and disabled persons.

[b]Assumes cash fares per one-way trip of $1.50 for adults; $1.00 for students; and $0.75 for elderly and disabled persons.

[c]Expressed in 1990 constant dollars.

[d]Assumes sufficient federal funds will be available through the Urban Mass Transportation Administration Section 18 formula transit assistance program to cover 29 percent of projected transit system operating deficits.

[e]Assumes sufficient state funds will be available through the state urban mass transit operating assistance program to cover 38.5 percent of projected transit system operating expenses.

[f]Assumes a resident population for the City of West Bend of 25,500 persons in 1992 and 27,000 persons in 1996.

Source: SEWRPC.

Table 47

PROJECTED RIDERSHIP ON THE RECOMMENDED SHARED-RIDE TAXICAB SERVICE FOR THE CITY OF WEST BEND: 1992-1996

Operating Characteristic	Year				
	1992	1993	1994	1995	1996
Service Provided					
Total Annual Vehicle Hours	14,590	14,570	14,560	14,530	14,570
Total Annual Vehicle Miles	120,600	126,500	128,200	129,200	130,900
Revenue Passengers					
Average Weekday[a]	125	144	151	155	159
Total Annual	37,100	42,700	44,800	45,900	47,000
Per Vehicle Hour	2.5	2.9	3.1	3.2	3.2
Per Vehicle Mile	0.31	0.34	0.35	0.36	0.36
Per Capita[b]	1.5	1.7	1.7	1.7	1.7

[a]*The weekday ridership figures shown represent an average for an entire year. It may be expected that ridership on Saturdays, Sundays, and holidays would be lower than that for an average weekday. Similarly, average weekday ridership would be expected to vary over the course of the year, with higher ridership during periods of inclement winter weather than during summer months.*

[b]*Assumes a resident population for the City of West Bend ranging from about 25,500 persons in 1992 to about 27,000 persons in 1996.*

Source: SEWRPC.

transit service in the City of West Bend, the Advisory Committee recommended that any city transit system be operated by a private transit operator selected on the basis of competitive bids. Under this arrangement, the City would contract with a private transit operator. That operator would be responsible for overseeing all day-to-day activities required to manage and operate the transit system, and to ensure that the called for transit service is actually provided. Contracting for transit services in this manner would relieve the City of the responsibility for direction of the day-to-day system operation, and would also minimize city personnel requirements since the personnel needed for system management and operation would be employees of the private transit operator, and not of the City. In addition, the service contract with the private transit operator would cover all the costs entailed in system operation, with the exception of administrative costs incurred by the City. Competition among interested transit operators for the service contract could provide some economies in the annual expenditures for the transit service.

As noted above, the City of West Bend would retain responsibilities for overseeing all activities related to transit system administration. Such administrative responsibilities would fall into three general areas:

1. Service monitoring activities, including reviewing on a regular basis the operating statistics and financial information reported by the private transit operator in order to chart actual ridership and financial performance for comparison against projected budget figures and prior year performance; considering the impacts of possible service modifications in response to requests received from the general public and from city officials; monitoring the contractor to see that all contract provisions are met, and that the transit services called for are actually provided; and responding to any questions, comments, and complaints from the general public or from elected officials concerning the operation of the transit system.

2. Preparation of applications and other documents necessary in order to receive federal and state transit assistance grants.

3. The preparation of materials and documents related to the procurement of transit services and the service contract.

It is envisioned that the aforelisted responsibilities for transit system administration should not require the addition of any full-time staff. Potentially, the above tasks could be accomplished by distributing the various work tasks among existing city staff. While the initial activities required for system start-up could require slightly higher manpower requirements, it is envisioned that the regular duties entailed would require the equivalent of between one-quarter and one-half man-year in personnel resources. Where existing city staff may initially lack necessary expertise on transit system matters, the city could request that the Regional Planning Commission provide staff assistance to perform transit program activities. The Commission would be willing to provide such staff assistance until city staff obtains the necessary expertise as part of its regular transit planning activities at no additional cost to the City.

It is recommended that the City establish a public policy-making body to oversee the initiation and ultimate operation of the recommended transit system. Such a policy-making body could be provided for through the creation of a municipal transit system utility as authorized under Sections 66.066 and 66.068 of the Wisconsin Statutes.

It is also recommended that the equipment needed to operate the recommended shared-ride taxicab system be purchased and owned by the City of West Bend and leased back to the private transit operator at minimal cost to provide the proposed transit services. This recommendation recognizes the several advantages associated with public ownership. First, public ownership would ensure that appropriate equipment and facilities would be used in operating the shared-ride taxicab system as the City would have direct control over equipment selection. Second, provision of the equipment by the City as part of the service contract would remove some risk to private operators which would be associated with supplying operating equipment. This action could, consequently, result in more competition for the City's service contract. Third, the City of West Bend could potentially draw upon federal transit capital assistance programs to offset a portion of the costs of the necessary capital equipment. As private transit operators would not be able to draw upon these funding programs, they would need to purchase the necessary capital equipment using their own financial resources. Consequently, the potential availability of federal capital funding may make it easier for the City to acquire the necessary operating equipment.

Capital Equipment Projects

The establishment of the recommended shared-ride taxicab system in the City of West Bend will not require a substantial amount of capital equipment or facilities. Initially, the contract governing operation of the system could provide that the capital equipment and facilities needed to operate the shared-ride taxicab system be supplied by the private transit operator. Such a provision in the contract would be necessary for the start-up of system operation in 1992 since the acquisition of the necessary operating equipment by the City using federal transit capital assistance funds may be expected to take up to two years. If an application for federal transit capital assistance funds is prepared during 1992, and federal transit capital assistance is made available, publicly purchased equipment probably would not be available for use on the system until during 1994. Therefore, the equipment needed to provide transit service during the initial years of system operation would have to be supplied by the private transit operator with the costs of this equipment passed back to the City through the operating expenses charged by the operator.

The principal equipment needed for the recommended shared-ride taxicab system will be a fleet of taxicab vehicles and a radio system to control their dispatch. To comply with current federal regulations, the vehicles which would be acquired for shared-ride taxicab operation—including those acquired by a private taxicab operator for the service contract with the City—would have to be accessible to disabled persons, including those confined to wheelchairs. As this requirement would eliminate the use of conventional automobiles as taxicab vehicles, it is recommended that a fleet of wheelchair-accessible small vans or minivans, similar to those shown in Figure 7 in Chapter VII, be acquired to serve as taxicabs. A total of six

Table 48

CAPITAL PROJECTS AND EXPENDITURES REQUIRED FOR THE RECOMMENDED SHARED-RIDE TAXICAB SERVICE FOR THE CITY OF WEST BEND

Capital Equipment or Project		Unit Cost	Total Cost
Quantity	Description		
6	Wheelchair-accessible small vans or minivans	$30,000	$180,000
1	Mobile radio system	17,000	17,000
1	Teletypewriter system for communication with disabled persons with hearing or speaking impairments	3,000	3,000
	Total acquisition costs		$200,000
	Contingencies[a]		10,000
	Project administration[b]		4,000
	Total capital project costs		$214,000
	Federal share of total capital costs[c]		160,500-171,200
	Local share of total capital costs[d]		42,800-53,500

[a]*Estimated at 5 percent of total acquisition and construction costs for all equipment.*

[b]*Estimated at 2 percent of total acquisition and construction costs for all equipment.*

[c]*Assumes 75 to 80 percent of eligible capital costs could be funded through the federal Urban Mass Transportation Administration Section 3 discretionary or Section 18 formula grant programs, respectively.*

[d]*Includes the 20 to 25 percent local matching funds required under the federal Urban Mass Transportation Administration grant programs.*

Source: SEWRPC.

taxicab vehicles would be required initially, with up to four of those vehicles being needed to provide service during peak hours of operation. The remaining two vehicles would be needed to serve as spare vehicles. In addition to the mobile radio system needed for communication between the dispatcher and the taxicab operator, it is also recommended that the City acquire a teletypewriter communication system to allow persons with hearing or speaking impairments to request service or transit system information. The recommended capital equipment is presented in Table 48.

Marketing

In order for a transit system to adequately perform its important transportation function in the City, the population must be informed of its availability to understand its operation. This is especially important in a city such as West Bend, where existing public transportation has been relatively ineffective and, consequently, not heavily used in the recent past. The recommended transit system will not reach its full potential without an aggressive public information and promotional campaign. It is therefore recommended that a vigorous marketing campaign be established in 1991, even prior to the actual initiation of service. This marketing program should focus on identifying the various user groups that could avail themselves of the transit service to meet the respective travel needs. To generate community interest, the program could use media campaigns and promotional contests. Upon initiation of service in 1992, it is recommended that between 5 to 10 percent of the system operating costs for the first two years of operation, and between 3 to 5 percent during subsequent years of operation, be devoted to the marketing program. Special

attention should be given to advertising campaigns and convenience fares to encourage transit ridership.

FINANCIAL COMMITMENT

A commitment of public funds will be required to subsidize annual operation of the recommended transit system, and to offset a portion of the transit system capital expenditures. Available federal and state funds are recommended to be drawn upon to reduce the City's financial commitment. This section of the chapter identifies the required financial commitment for the recommended transit system over the planning period and suggests how this commitment might be shared among available funding sources.

Financial Performance

Projections of ridership, expenses, revenues, and public subsidies for the recommended transit system during the five-year planning period are presented in Table 49. Projections of transit system ridership and operating revenues reflect the Advisory Committee-recommended fare structure. In addition, whereas the financial projections used to evaluate alternative transit service plans had been presented in constant 1990 dollars to facilitate ready comparison of the costs of the alternative transit services, all financial projections for the recommended transit system are expressed in projected "year of expenditure" dollars. This is because, while transit fares could be expected to remain stable over the planning period to promote the growth of system ridership, transit system operating expenses could be expected to increase modestly and federal transit assistance funds could be expected to decline. These three factors could be expected to have a significant impact on the projected operating deficits for the recommended transit system.

Consequently, the financial projections reflect projected increases in annual system operating expenses of between 4 to 5 percent per year based on recent trends observed on other Wisconsin transit systems. It has also been assumed that federal transit operating assistance funds would decline over the planning period due to inflationary increases in operating expenses and deficits for transit systems statewide; and stable allocations of federal Urban Mass Transportation Administration Section 18 formula assistance funds to the state of Wisconsin. In the recent past, the total operating expenses and deficits of the Wisconsin transit systems receiving federal Urban Mass Transportation Administration Section 18 operating assistance have increased each year, while the total amount of federal Urban Mass Transportation Administration Section 18 formula transit assistance funds allocated annually to Wisconsin has remained stable. As a result, the proportion of the total operating deficits of participating transit systems which can be funded with federal Urban Mass Transportation Administration Section 18 transit operating assistance funds has declined from 50 percent of the operating deficits in 1987 to an estimated 29 percent of transit system operating deficits in 1991. No significant increases in the annual allocation of federal Urban Mass Transportation Administration Section 18 funds to the state of Wisconsin have been assumed over the planning period. Therefore, it has been assumed that federal transit operating assistance funds available for use by the recommended West Bend shared-ride taxicab system would decline over the planning period, with such funds assumed to cover from about 27 percent of projected transit system operating deficits in 1992 down to about 19 percent of projected transit system operating deficits by 1996.

Based upon these assumptions, total transit system operating expenses are projected to be about $220,000 during the initial year of operation in 1992. The costs of operation of the recommended system may be expected to decline slightly with the arrival and operation of new equipment in 1994. Prior to that time, the costs of system operation would include charges by the private transit operator for use of privately supplied operating equipment. By 1996, the annual cost of system operation with publicly owned equipment is projected to be about $209,000.

Annual operating revenues may be expected to increase over the entire planning period with increases in transit ridership, with operating revenues projected to be about $46,000 during 1992, increasing by about 28 percent to about $59,000 by 1996. As a result of the slight declines in operating expenses and increases in passenger revenues, the total operating deficit for the transit system would be expected to decline from

Table 49

PROJECTED RIDERSHIP AND FINANCIAL PERFORMANCE OF THE RECOMMENDED SHARED-RIDE TAXICAB SYSTEM FOR THE CITY OF WEST BEND: 1992-1996

Operating Characteristic	Year[a]				
	1992	1993	1994	1995	1996
Annual Revenue Passengers	37,100	42,700	44,800	45,900	47,000
Service Cost[b]					
Total Annual Operating Expenses	$219,900	$230,300	$192,600	$200,200	$209,400
Total Annual Operating Revenue[c]	46,400	53,400	56,000	57,400	58,800
Total Annual Operating Deficit	173,500	176,900	136,600	142,800	150,600
Sources of Required Public Funds					
Federal Operating Assistance[d]	46,800	44,200	31,400	30,000	28,600
State Operating Assistance[e]	84,700	88,700	74,200	77,100	80,600
Local Operating Assistance	42,000	44,000	31,000	35,700	41,400
Service Effectiveness					
Total Expense per Passenger	$5.93	$5.39	$4.30	$4.36	$4.46
Total Revenue per Passenger	1.25	1.25	1.25	1.25	1.25
Total Deficit per Passenger	4.68	4.14	3.05	3.11	3.20
Percent of Expenses Recovered Through Operating Revenues	21.1	23.2	29.1	28.7	28.1

[a]Assumes taxicab service would be provided with the operating characteristics shown in Table 44; and at the fares shown in Table 45.

[b]Expressed in projected "year of expenditure" dollars. Assumes that operating expenses would increase by between 4 and 5 percent each year and that passenger fares would remain stable over the period to promote the growth of system ridership.

[c]Assumes a ridership composition of 20 percent adult, 10 percent student, and 70 percent elderly/disabled, and no change in transit fares over the planning period.

[d]Assumes federal operating assistance funds available through the federal Urban Mass Transportation Administration Section 18 formula transit assistance program would decline over the period, and would be sufficient to cover from 27 percent of the total transit system operating deficit in 1992 down to about 19 percent of the total transit system operating deficit by 1996.

[e]Assumes sufficient state funds will be available through the state urban mass transit operating assistance program to fund 38.5 percent of projected transit system operating expenses over the entire planning period.

Source: SEWRPC.

about $174,000 in 1992 to about $150,000 in 1996. The local share of the annual system operating deficit, however, may be expected to remain the same over the period, ranging from about $42,000 in 1992 to about $41,000 in 1996, despite anticipated declines in federal transit operating assistance levels.

The capital projects and expenditures required for the implementation of the recommended shared-ride taxicab system are presented in Table 48. The total costs of the recommended capital projects would be about $214,000. Of this amount, between $161,000 and $171,000, or 75 to 80 percent, could potentially be funded through the federal Urban Mass Transportation Administration Section 3 discretionary, or Section 18 formula, transit assistance programs, respectively. The remaining 20 to 25 percent of total transit costs, amounting to between $43,000 and $53,000, would need to be funded by the City of West Bend.

Table 50

PROJECTED DISTRIBUTION OF EXPENDITURES FOR THE RECOMMENDED SHARED-RIDE TAXICAB SYSTEM FOR THE CITY OF WEST BEND

Year	Transit System Expenditures[a]											
	Operating Subsidies				Capital Expenditures				Total Public Costs			
	Federal Share[b]	State Share[c]	Local Share	Total	Federal Share[d]	State Share	Local Share	Total	Federal Share	State Share	Local Share	Total
1992	$ 46,800	$ 84,700	$ 42,000	$173,500	$160,500-$171,200	--	$42,800-$53,500	$214,000	$209,100-$219,800	$ 84,700	$84,800-$95,500	$387,500
1993	44,200	88,700	44,000	176,900	--	--	--	--	44,200	88,700	44,000	176,900
1994	31,400	74,200	31,000	136,600	--	--	--	--	31,400	74,200	31,000	136,600
1995	30,000	77,100	35,700	142,800	--	--	--	--	30,000	77,100	35,700	142,800
1996	28,600	80,600	41,400	150,600	--	--	--	--	28,600	80,600	41,400	150,600
Total	$181,000	$405,300	$194,100	$780,400	$160,500-$171,200	--	$42,800-$53,500	$214,000	$341,500-$352,200	$405,300	$236,900-$247,600	$994,400
Average Annual	$ 36,200	$ 81,100	$ 38,800	$156,100	$30,000-$32,300	--	$8,100-$10,100	$ 40,400[e]	$66,500-$68,500	$ 81,100	$46,900-$48,900	$196,500

[a] *Expressed in "year of expenditure" dollars. Assumes an average increase in operating expenses of between 4 and 5 percent each year and stable transit fares.*

[b] *Assumes federal operating assistance funds available through the Urban Mass Transportation Administration Section 18 formula transit assistance program would decline over the period, and would be sufficient to cover from 27 percent of the total transit system operating deficit in 1992 down to about 19 percent of the total transit system operating deficit by 1996.*

[c] *Assumes sufficient state funds will be available through the state urban mass transit operating assistance program to fund 38.5 percent of projected transit system operating expenses over the entire planning period.*

[d] *Assumes 75 to 80 percent of eligible capital costs could be funded through the federal Urban Mass Transportation Administration Section 3 discretionary or Section 18 formula grant programs, respectively.*

[e] *Based on the expected useful life of the operating equipment and facilities included in the recommended capital projects.*

Source: SEWRPC.

Sources of Funding

As noted in Chapter VI of this report, there are two major nonlocal sources of funding which could be drawn upon to reduce the local financial commitment required for the implementation and subsequent operation of the recommended transit system: the U. S. Department of Transportation, Urban Mass Transportation Administration and the Wisconsin Department of Transportation. It is recommended that transit assistance funds available under the various programs offered by these governmental agencies can be sought to offset a portion of the annual public operating subsidies and capital expenditures required for operation of the recommended transit system. The distribution of the projected annual financial commitment among federal, state, and local funding sources is set forth in Table 50.

It is recommended that federal funding for a portion of the annual operating deficit be obtained through the federal Urban Mass Transportation Administration Section 18 formula transit assistance program. The federal Urban Mass Transportation Administration Section 18 program provides federal funds to support transit systems in nonurbanized areas like the City of West Bend, with the funds for this program being apportioned to the governor of each state based on nonurbanized area population. The Wisconsin Department of Transportation administers the Section 18 program for federal Urban Mass Transportation Administration in the State of Wisconsin. Under the State's administration, the Section 18 program provides for operating assistance funds to cover a maximum of 50 percent of transit system operating deficits. However, since 1988, the amount of Section 18 funds available to Wisconsin has not been sufficient to provide the full 50 percent federal share of operating deficits allowed under the Section 18 program. For 1991, the Wisconsin Department of Transportation has estimated that the State's allocation of funds under the Section 18 program will be sufficient to cover

only about 29 percent of the operating deficits of all participating transit systems due primarily to inflationary increases in the operating expenses and deficits of participating transit systems. As noted above, it has been assumed that the proportion of the total operating deficit for the recommended transit system which could be funded with federal Section 18 operating assistance funds will decline over the planning period from about 27 percent of the operating deficit in 1992 to about 19 percent of the operating deficit in 1996. Based on these assumptions, the federal transit operating assistance funds assumed to be available through the federal Urban Mass Transportation Administration Section 18 program would be expected to range from about $47,000 in 1992 down to about $29,000 by 1996.

It is also recommended that state funding for a portion of the annual transit operating assistance deficit be sought from the state Urban Mass Transit Operating Assistance program administered by the Wisconsin Department of Transportation. This program, authorized under Section 85.20 of the Wisconsin Statutes, provides operating assistance to all communities of 2,500 or more persons with publicly supported transit systems. It has been assumed that sufficient state funds would be available over the planning period to provide the current maximum level of state funding, which is 38.5 percent of the total operating expenses of the transit system. The state funds available annually over the period were assumed to range from about $85,000 in 1992 down to about $81,000 in 1996, representing between 46 and 54 percent of the total annual operating deficit, respectively.

The City of West Bend would be responsible for that portion of the total operating deficit for the transit system which cannot be covered by federal or state operating assistance funds. The city share of the operating deficit for the transit system is projected to be about $42,000 during 1992 and about $41,000 in 1996, representing between 24 and 27 percent of the annual operating deficit, respectively.

It is also recommended that the City seek federal funds to offset a portion of the costs incurred in purchasing necessary capital equipment for implementation of the recommended transit system. The source of these funds would need to be either the federal Urban Mass Transportation Administration Section 3 discretionary capital assistance grant program, which would provide capital assistance to fund up to 75 percent of the eligible project costs; or the federal Urban Mass Transportation Administration Section 18 formula assistance grant program, which would provide capital assistance to fund up to 80 percent of eligible project costs. Federal transit capital assistance funds potentially available from these two programs could cover between about $161,000 and $171,000, or 75 to 80 percent, of the total capital expenditures of about $214,000.

Availability of federal transit capital assistance from either of these programs for the recommended West Bend transit system cannot be guaranteed. Grants under the federal Urban Mass Transportation Administration Section 3 program are made at the discretion of the Secretary of the U. S. Department of Transportation and competition for the limited amount of Section 3 funds available for projects such as those proposed for the City of West Bend is high. The limited amount of federal Urban Mass Transportation Administration Section 18 formula assistance funds currently allocated to the State of Wisconsin also makes the availability of funding under this program uncertain. The current policy of the Wisconsin Department of Transportation in administering the Section 18 program for federal Urban Mass Transportation Administration in the State is to maximize the use of available funds for operating assistance, with only the funds not needed for operating assistance being made available for capital assistance projects. Inasmuch as the current amount of federal Urban Mass Transportation Administration Section 18 funds available in the State is not sufficient to fund the full 50 percent of operating deficits allowed under the Section 18 program, no funds are currently available for Section 18 capital assistance projects under the Section 18 program. Assuming that there will not be a significant increase in the annual allocation to the state or federal Urban Mass Transportation Administration Section 18 formula assistance funds, use of the Section 18 program to fund the recommended capital projects would require a change in the current administrative policy of the Wisconsin Department of Transportation for the Section 18 program.

PLAN IMPLEMENTATION

The operating characteristics and the financial requirements of the recommended transit system development plan have been described in the previous sections of this chapter. In a practical sense, however, the plan is not complete until the steps required for implementation have been specified. Full implementation of the recommended plan will be dependent upon the coordinated actions of four agencies of government: the City of West Bend Common Council; the Southeastern Wisconsin Regional Planning Commission; the Wisconsin Department of Transportation; and the U. S. Department of Transportation, Urban Mass Transportation Administration. These four public bodies have vital roles in providing the endorsement, operations, and financial support required to achieve plan implementation.

Implementation of the transit system development plan will require successful completion of the following activities:

1. The submission of the recommendation of the transit system development plan to the residents of the City of West Bend for comment and approval through the holding of a public informational meeting and, possibly, a citywide advisory referendum;

2. The adoption or endorsement of the transit system development plan by the appropriate agencies of government identified above;

3. The establishment of a policy-making body to oversee the operation of the recommended transit system.

4. The competitive procurement of the recommended shared-ride taxicab services and operating equipment from a private transit operator; and

5. Preparation of the program budget and applications for state and federal funds.

Each of these activities is described in more detail in the following sections.

Community Approval

Before the recommended transit development plan can be implemented, community approval of the program should be sought. To successfully complete this step, a public informational meeting and hearing should be held to solicit comments regarding the proposed transit service. A further step in this respect would be to seek the approval of the city electorate through a citywide advisory referendum for the establishment of the proposed shared-ride taxicab system. Because the recommended transit system development plan calls for the establishment of a shared-ride taxicab system, and not a municipal bus system, the scheduling of such a citywide advisory referendum is not required by the Wisconsin Statutes. The Advisory Committee did not, however, believe such a referendum would be a necessary plan implementation step. The Committee noted that other programs which required larger expenditures of city tax dollars than that projected for the recommended transit system were initiated by the City in the past without being subject to referendum. Therefore, the Committee was of the opinion that the cost of an advisory referendum for the proposed shared-ride taxicab system may not be warranted. The holding of such a referendum would, however, represent a means to assess the reaction of the community to the proposed provision of public transit service through a publicly subsidized shared-ride taxicab system. If the City determines that an advisory referendum on this issue is desirable, it should be held in conjunction with the municipal election scheduled for April 2, 1991, to assure the probability of system start-up in 1992, with a public informational meeting and hearing scheduled prior to the referendum date.

Plan Adoption

The second step in the plan implementation process is the adoption or endorsement of the recommendations of the transit system development plan by those public bodies or agencies which will have a role in the operation or financial support of the public transportation system. Adoption or endorsement of the recommended program by the appropriate governmental bodies is essential to assure a common understanding among governmental agencies and to enable the staffs of these agencies to program the projects and funding necessary for implementation. The following plan adoption actions are, accordingly, recommended:

1. That the Common Council of the City of West Bend formally adopt the recommended transit system development plan set forth herein as a guide for the provision

of public transportation service in the City of West Bend and, further, act to establish a public transit system in the West Bend area. As already discussed herein, the Common Council may choose to be guided in its consideration of these actions by the results of an advisory citywide public referendum on the establishment of a shared-ride taxicab service public transit system.[1]

2. That the Southeastern Wisconsin Regional Planning Commission act to incorporate the recommended transit system development plan into its long-range transportation system plan for the Southeastern Wisconsin Region by amending the plan adopted by the Commission on June 1, 1978.

3. That the Wisconsin Department of Transportation adopt or endorse the recommended transit system development plan and use the plan as a guide for the programming, administration, and granting of state urban mass transit operating assistance funds, and federal Urban Mass Transportation Administration Section 18 formula assistance funds, for the City of West Bend.

Establishment of Transit System Policy-Making Body

It is recommended that the City establish a policy-making body to oversee the creation and ultimate operation of the recommended transit system. Such a policy-making body could be established by the City through the creation of a municipal transit utility to oversee the operation of the shared-ride taxicab system, as authorized under Sections 66.066 and 66.068 of the Wisconsin Statutes. Such a utility would consist of a management board of three, five, or seven commissioners who would be appointed by the Mayor and Common Council. The membership of this Board could include individuals holding other public office, including members of the Common Council. In the alternative, the Common Council could provide for the operation of the utility by the Board of Public Works or by a designated municipal officer. Within southeastern Wisconsin, the City of Waukesha has established a municipal transit system utility, and the City of Racine has established a transit and parking utility to serve as a transit commission, to oversee the operation of their respective fixed-route transit systems, pursuant to the above Wisconsin Statutes. The City of Kenosha has established a transit commission pursuant to Section 66.943 of the Wisconsin Statutes to oversee the operation of its fixed-route transit system. Notably, the authorizing statute prohibits its members of such a transit commission from holding any other public office.

Procurement of Transit Services

It is recommended that the proposed shared-ride taxicab services be provided by a private transit operator under contract with the City of West Bend. To comply with current federal and state regulations, the City of West Bend will need to follow a competitive procurement process in awarding the service contract for the recommended transit system. It is recommended that the City follow a formal Request for Proposals (RFP) process to solicit competitive bids for the operation of the recommended shared-ride taxicab system.

This process will require the preparation of an RFP document which is to be distributed to interested private transit operators for their use in preparing service proposals and bids on the proposed service contract. The RFP document will need to stipulate specific information concerning the operation of the recommended shared-ride taxicab system including the days and hours of system operation, the fare structure, service area, and operating equipment and facilities required. In addition, the RFP document will also need to request information which could be used to judge the qualifications of each potential transit service provider, as well as provide information to each potential contractor concerning the specific bid requirements that would be required to be met and information that would need to be submitted by each potential contract operator in order for its service proposal and bid to be considered by the City. The RFP document would also need to indicate

[1] *The Common Council may wish to request an opinion from the City Attorney as to whether or not, under Section 62.23(5), the proposed establishment of a public transit system should be referred to the City Plan Commission for consideration and report prior to Common Council action.*

the tentative schedule for the procurement process and the criteria which would be used to evaluate service proposals. Evaluation of each perspective contractor should be based upon both the contractor's qualifications and the bid cost to provide the service. As the private transit operator will initially be responsible for providing the operating equipment necessary for system operation, the City will also need to pay particular attention to each service proposal to ensure that the private operator's equipment is suitable for operation on the City transit system, and meets current federal accessibility requirements for disabled persons.

Following the selection of a transit operator using this process, a contract should be developed that specifies the contract costs, management responsibilities, and performance evaluation criteria for the company retained. The private transit operator should be given full responsibility for satisfactorily providing transit service in the City under the supervision of the staff and the City's policy-making body.

In order to ensure the initiation of transit service by the start of calendar year 1992, it is recommended that the City begin work during the second quarter of 1991 on the preparation of the RFP document to be used to solicit bids so that service proposals from interested private transit operators can be solicited early in the third quarter of 1991. In soliciting service proposals, notices announcing the City's intent to competitively award the transit service contract for the city transit system should be published in major area newspapers and, if possible, directly mailed to all private transit operators that can be identified as potential contract operators.

A typical procurement schedule for transit services generally allows a period of four to six weeks between the issuing of the RFP document and the time at which transit proposals are due. Such schedules also allow for the holding of a pre-proposal conference in the middle of the period to answer specific questions and comments from interested contractors concerning the contract transit services. A short period will also be required after service proposals have been submitted for city staff to review and evaluate each proposal and for a private transit operator to be awarded the service contract. It is recommended that the City have a contract with the private transit operator before the end of the third quarter of 1991 to ensure that sufficient time is allowed for start-up activities and to provide for the financial information needed for city staff to prepare applications for federal and state transit operating assistance funds for 1992.

Preparation of Program Budget and Applications for Transit Assistance

The fifth step involved in plan implementation is preparation of the transit system operating budget, including identification of financial commitment required from the federal, state, and local funding sources. The activities required under this step must be performed in conjunction with the activities of the previous step in order to accurately determine the projected system operating costs and deficits, and the amount of public subsidy required from each funding source. Upon determination of the system operating budget, applications for state and federal transit assistance monies necessary for system operation in 1992 must be prepared.

Within Wisconsin, the Wisconsin Department of Transportation administers the federal Urban Mass Transportation Administration Section 18 operating assistance program for federal Urban Mass Transportation Administration and also the state urban mass transit operating assistance program. For shared-ride taxicab systems in Wisconsin like the one recommended for the City of West Bend, applications for federal and state operating assistance funds are consolidated into one document. Such an application must be completed and submitted to the Wisconsin Department of Transportation by November 15, 1991, to allow sufficient time for the preparation of the federal and state operating assistance contracts between the State of Wisconsin and the City of West Bend for calendar year 1992. The application for these funds should reflect total transit operating expenses developed on the basis of the final service contract with the private transit operator and an estimate of city administrative costs; and total transit system operating deficits based on projections of transit system operating expenses less operating revenues.

A basic assumption made in the preparation of the transit system development plan was the delivery and use of new vehicles in system operation by 1994. Based upon the experience of other federal grant applicants, the time between the submittal of a federal grant application and the delivery of new vehicles to the applicant could be as long as two years. It is therefore

recommended that the preparation of an application for federal transit capital assistance funds for partial support of the cost of purchasing the operating equipment necessary for full system operation be made a high priority action by the City of West Bend during 1992.

As noted in Chapter VI of this report, the federal Urban Mass Transportation Administration Section 18 formula assistance program should be the principal source of federal transit capital assistance funds for the recommended West Bend transit system. However, the limited amount of Section 18 formula assistance funds currently allocated to the State of Wisconsin makes it uncertain that the program can be successfully used to fund the capital assistance projects needed for the recommended transit system. It is recommended that the City of West Bend monitor the federal Urban Mass Transportation Administration Section 18 program in Wisconsin in order that it be aware of any changes which would make federal transit capital assistance funds available under this program during 1992 and subsequent years.

A more likely source of federal transit capital assistance funds for the City of West Bend's shared-ride taxicab system would be the federal Urban Mass Transportation Administration Section 3 discretionary capital grant program. In this respect, the Wisconsin Department of Transportation has attempted to satisfy the immediate capital assistance needs of transit systems which would otherwise use federal Urban Mass Transportation Administration Section 18 funds by including capital projects for these systems in a statewide Section 3 capital assistance grant application which it prepared during 1990. It is recommended that the City of West Bend approach the Wisconsin Department of Transportation to determine if it intends to prepare a similar application on behalf of transit systems in the State during 1992 or 1993 and, if so, request that the application include the recommended capital projects for the City of West Bend's shared-ride taxicab system. Should the timetable for such a Section 3 capital assistance grant application by the State be unacceptable to the City of West Bend, it is recommended that the City consider preparing and submitting on its own an application for federal Urban Mass Transportation Administration Section 3 capital assistance funds for the needed capital equipment.

SUMMARY

This chapter has described a recommended public transit system for the City of West Bend, along with the steps required to achieve operation of the recommended system in 1992. A shared-ride taxicab system is recommended for implementation in the study area to serve the public transportation needs of residents of the West Bend area. Shared-ride taxicab service is recommended to be initially provided on weekdays and Saturdays between the hours of 6:00 a.m. and 10:00 p.m.; and on Sundays and holidays between the hours of 8:00 a.m. and 2:00 p.m.

Consideration was given to the service area for the recommended shared-ride taxicab system. The Advisory Committee recommended that shared-ride taxicab service be provided to serve all trips which have one end inside the City of West Bend. This would include all trips made entirely between origins and destinations within the corporate limits of the City, as well as trips made by both city residents and nonresidents between locations inside the City and locations in the immediately surrounding areas outside the City. The Committee also agreed that, in the interest of equity, higher fares should be charged for trips made to and from locations outside the City. The Advisory Committee recommended that trips with both origins and destinations entirely outside the corporate limits should not be served by the taxicab system.

One-way user fares of $2.00 for adults, $1.50 for students, and $1.00 for elderly or disabled persons were recommended by the Advisory Committee for establishment. In addition, it is proposed that special convenience fares which would provide for substantial discounts from the regular cash fares be established. Higher fares would also be charged for trips made between locations in the City and immediately surrounding areas outside the City.

It is also recommended that the transit system be operated by a private transit operator selected on the basis of competitive bids. Contracting for transit service in this manner would relieve the City of the details of day-to-day system management and operation, thereby minimizing city personnel requirements. In addition, since much of the transit system operating expenses would be subject to a competitive bidding process, competition among interested transit operators

for the service contract could provide some economies in the annual operating expenditures for the transit service.

It is also recommended that the operating equipment and facilities needed to operate the transit system ultimately be purchased and owned by the City of West Bend and leased back to the private transit operator to provide the proposed transit services. This recommendation recognizes that city ownership of the necessary operating equipment would provide for better control over equipment selection and ensure that appropriate equipment and facilities would be used in operating the transit system. In addition, city ownership of equipment could result in more competition for the city service contract as it would remove some risk to private operators which would be associated with supplying operating equipment. Finally, this recommendation recognizes that purchase of the necessary capital equipment and facilities by the City with public funds could potentially be easier than purchase by the private operator using his own financial resources due to the potential availability to the City of federal transit capital assistance funds. While public ownership of the necessary operating equipment is recommended, the private transit operator would initially be responsible for supplying the operating equipment and facilities needed to initiate transit system operation at the start of calendar year 1992. Acquisition of the necessary operating equipment by the City using federal transit capital assistance funds would take up to two years, with such publicly purchased equipment probably not being available until 1994.

Operated in the above manner, the transit system would provide complete service area coverage of all existing and proposed areas of residential, commercial, and industrial development in the City of West Bend and the immediately surrounding area. Annual ridership on the system would be expected to be about 37,000 revenue passengers by the end of the first year of operation in 1992, and would be expected to increase by about 27 percent to about 47,000 revenue passengers by 1996. Total annual operating expenses for the transit system would initially be high due to charges by the private transit operator for the privately owned equipment and facilities it supplies, and would be expected to be about $220,000 in 1992. These expenses would decline slightly after publicly owned equipment is purchased and delivered, and would be expected to be about $209,000 by 1996. Total annual operating revenue would be expected to increase over the planning period with increases in ridership on the system from about $46,000 in 1992 to about $59,000 by 1996. The total annual operating deficit for the transit system would, thus, be expected to decline over the period, from about $174,000 in 1992 to about $150,000 by 1996. The local share of the operating deficit, however, would be expected to remain about the same over the period, ranging from about $42,000 in 1992 to about $41,000 by 1996, despite anticipated declines in federal transit operating assistance funds. The average annual operating subsidy required from federal, state, and local funding sources for the proposed transit system over the five-year period would be expected to be about $156,000. Of this amount, about $39,000 would represent the average annual operating subsidy required from the City of West Bend.

The capital projects required for full implementation of the recommended transit system would include the purchase of six wheelchair-accessible vans to serve as a fleet of taxicab vehicles, the purchase of a mobile radio system to control the dispatch of taxicab vehicles, and the purchase of a teletypewriter system to enable disabled persons with hearing or speech impairments to request service or transit system information. The total costs of these capital projects is estimated at about $214,000. Of this amount, between $161,000 and $171,000, or 75 to 80 percent, could potentially be funded through the federal Urban Mass Transportation Administration Section 3 discretionary capital grant program or federal Section 18 formula transit assistance program, respectively. The remaining $43,000 to $53,000, or 20 to 25 percent, of the total capital costs would need to be funded by the City of West Bend. The average annual financial commitment for capital projects would be about $40,000, of which between $8,000 and $10,000 would represent the average annual cost to the City of West Bend.

There are five basic steps involved in the establishment of the recommended shared-ride taxicab system in the City of West Bend. The first step requires the City of West Bend to seek community comment on, and approval of, the recommendations of the transit system development plan. It is recommended that the City of

West Bend schedule a public hearing in 1991 at which time questions or comments from the general public concerning the recommended transit system could be answered or recorded. An additional, optional step, not required by the Wisconsin Statutes and not recommended by the Advisory Committee, would be for the City of West Bend to hold a citywide advisory referendum on the establishment of the public transit system. This step would represent a good way in which to assess the reaction of the entire West Bend community toward the commitment of public tax monies to support the operation of the recommended transit system.

The second step required for implementation of the recommended system is the adoption or endorsement of the transit system development plan by the public bodies and agencies providing operating or financial support. It is recommended that the City of West Bend Board of Public Works and Common Council adopt the recommendations of the transit system development plan as a guide for the provision of public transit service in the City of West Bend. It is also recommended that the Southeastern Wisconsin Regional Planning Commission act to incorporate the transit system development plan into its current long-range transportation system plan for the Southeastern Wisconsin Region. Finally, it is recommended that the Wisconsin Department of Transportation—which administers both the federal Urban Mass Transportation Administration Section 18 formula grant assistance program for the federal Urban Mass Transportation Administration in Wisconsin and the state urban mass transit operating assistance program—act to adopt or endorse the transit system development plan and use the document as a guide in the programming, administration, and granting of both federal and state transit assistance funds for the City of West Bend.

The third step required for implementation of the recommended transit system would be the establishment of a policy-making body to oversee the creation and ultimate operation of the transit system. The Common Council could consider creating a transit system utility, as authorized under Sections 66.066 and 66.068 of the Wisconsin Statutes, with a specific management board of commissioners to serve as such a body. In the alternative, the Common Council could provide for the operation of the utility by the Board of Public Works or by a designated municipal officer.

The fourth step required for implementation of the recommended transit system is the procurement of the recommended transit services and necessary operating equipment from the private transit operator. It is recommended that the City solicit competitive bids from interested private transit operators using a formal Request for Proposals process. The service contract would then be awarded based upon the qualifications of each prospective contractor and the contractor's bid cost to provide the service.

The fifth step required for implementation of the recommended transit system is preparation of the transit system operating budget and financial assistance applications for state and federal funding. It is recommended that funds be sought from the various transit assistance programs available through the federal Urban Mass Transportation Administration and the Wisconsin Department of Transportation to offset a portion of the annual operating subsidies and total capital expenditures required to implement the recommended transit system. A combined application for both federal and state transit operating assistance funds must be completed and submitted to the Wisconsin Department of Transportation by November 15, 1991, to allow sufficient time for the preparation of federal and state transit operating assistance contracts between the State of Wisconsin and the City of West Bend for calendar year 1992. It is also recommended that the City of West Bend monitor the availability of federal transit capital assistance funds through the federal Urban Mass Transportation Administration Section 18 formula assistance program for 1992 and subsequent years. Should federal transit capital assistance funds not be available through this program for the recommended capital projects, the City of West Bend should seek federal transit capital assistance through the Section 3 discretionary grant program. To obtain these funds, the City of West Bend could either request that the Wisconsin Department of Transportation apply for such funds on its behalf, or prepare and submit its own application directly to federal Urban Mass Transportation Administration.

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Chapter IX

SUMMARY AND CONCLUSIONS

INTRODUCTION

This report sets forth the findings and recommendations of a study of the feasibility of creating a public transit system in the West Bend area. The request for the study stemmed from concerns on the part of elected officials over the ability of the existing private taxicab and specialized transportation services in the City to serve adequately the transit needs of the area. The study was conducted by the Regional Planning Commission at the specific request of the Common Council of the City of West Bend. The study included a thorough inventory and analysis of the existing transit services in the area; analyses of the existing land uses and of the current travel habits, patterns, and needs of the residents of the area; and a careful evaluation of alternative means for providing the needed transit services. The study culminated in the preparation of a recommended public transit plan for the City of West Bend and environs.

STUDY PURPOSE

The study was intended to serve four purposes. First, it was to identify the need for a public transit system in the West Bend area, and to evaluate the effectiveness of the existing transit services in meeting the transportation needs of the resident population. Second, it was to identify the type of service that should be provided if a transit system were found to be needed; the geographic area that should be served by the system; and the extent to which the City of West Bend would have to fund the system. Third, it was to prepare a transit system development plan if such a system was found to be needed. Fourth, it was to provide the documentation necessary to support potential applications for available transit capital and operating assistance funds from state and federal sources.

STUDY ORGANIZATION

The conduct of the feasibility study was a joint effort of the staffs of the City of West Bend and the Southeastern Wisconsin Regional Planning Commission. Additional staff assistance was obtained as necessary from certain other agencies concerned with transit system development in the study area, including the Wisconsin Department of Transportation.

To provide guidance to the technical staffs in the conduct of the study, and to more directly and actively involve concerned and affected public officials and citizen leaders in the study, the City created the West Bend Mass Transportation Citizens and Technical Coordinating and Advisory Committee. The full membership of the Committee is listed on the inside front cover of this report.

TRANSIT SYSTEM DEVELOPMENT OBJECTIVES AND STANDARDS

A set of transit service objectives was developed to provide a sound basis for evaluating the performance of the existing transit services, for formulating alternative service options and plans, and for developing recommendations for consideration by the elected officials concerned. Complementing each of the objectives was a planning principal and a set of service and design standards. Each set of standards was directly related to the objectives and served to facilitate quantification and evaluation of the performance of the existing transit services and of the design, test, and evaluation of alternative transit system plans.

The following four objectives were adopted by the Advisory Committee for use in this study:

1. Public transit should serve those areas of the City and its immediate environs which can be effectively served, including those areas which are fully developed to medium or high densities and, in particular, the transit-dependent population within those areas.

2. The public transit system should promote transit utilization and provide for user convenience, comfort, and safety.

3. The public transit system should promote efficiency in the total transportation system.

4. The transit system should be economical and efficient, meeting all other objectives at the lowest possible cost.

LAND USE, SOCIOECONOMIC, AND TRAVEL CHARACTERISTICS OF THE STUDY AREA

Study Area

The study area considered in the conduct of the study included all the City of West Bend and the Town of West Bend, as well as portions of the Towns of Barton, Farmington, and Trenton. The study area encompassed approximately 63 square miles, and is shown on Map 1 in Chapter I of this report.

Land Use

Over the century from 1850 to 1950, urban growth in the West Bend study area generally occurred in tight concentric rings moving outward from the center of the City of West Bend. Urban development after 1950 became discontinuous and diffused, with few major concentrations of intensive urban development. Since 1970 urbanization within the study area has accelerated; the amount of land in urban use has increased by about 34 percent from 1970 to 1985. This rapid urbanization has been marked by lower overall population densities, a diffusion of commercial and residential development, and an increased use of shopping and service establishments outside downtown West Bend. In spite of this diffusion of urban development, substantial areas of high and medium density urban land uses still exist within the City of West Bend, as shown on Map 4 in Chapter III of this report, and these areas are developed at densities capable of supporting a public transit system.

Population

The resident population of the study area increased significantly from 1960 to 1990, from about 14,500 persons to about 33,900 persons, an increase of about 134 percent. Of the estimated 1990 resident population of the study area, about 24,600 persons, or 73 percent, resided in the City of West Bend. The number of households in the study area increased from about 4,100 in 1960 to about 12,400 in 1990, an increase of about 200 percent. Of the estimated number of households in the study area in 1990, about 9,200, or 74 percent, were located within the City of West Bend.

Six population groups which typically exhibit high dependence on transit service for mobility were identified in the study area: school age children, the elderly, low income families, minorities, the disabled, and persons residing in households with limited automobile availability. The census tracts which in 1980, the latest year for which finalized data are available, displayed concentrations of those populations most heavily dependent on transit service were identified as high priority areas for transit service and are shown on Map 8 in Chapter III of this report. These census tracts included areas in and surrounding the City of West Bend central business district and on the west and southeast sides of the City. Sites frequented by the elderly and disabled for care, housing, nutrition, and education were also identified.

Employment

Employment in the study area was found to have increased significantly between 1972 and 1980, then declined slightly from 1980 to 1985 as a result of the severe nationwide recession before increasing again from 1985 to 1990. Employment in the study area increased from about 11,200 jobs in 1972 to about 17,200 jobs in 1990, an increase of about 54 percent. Of the estimated 1990 employment in the study area, about 15,000 jobs, or 87 percent, were located within the City of West Bend. The major concentrations of employment in the study area are shown on Map 9 in Chapter III of this report, and included the West Bend central business district, areas containing major governmental and institutional centers, and concentrations of retail and service employment such as those located along South Main Street in the vicinity of Paradise Drive.

Major Traffic Generators

The location of all major traffic generators in the study area, including shopping areas, major public educational institutions, community and special medical centers, governmental and public institutional centers, employment centers, and recreational areas, were identified in the planning effort and are shown on Map 12 in Chapter III of this report. The vast majority of these generators were found to be concentrated in the highly urbanized areas of the City of West Bend.

Travel Habits and Patterns

It was estimated that about 106,900 trips with one end or both ends in the West Bend study area were made on an average weekday in 1990. About 68,500 trips, or 64 percent of the total,

were made entirely within the study area. Of these 68,500 internal trips, about 51,700 trips, or 75 percent, were made entirely within the City of West Bend, with the highest concentration of these trips located in the West Bend central business district and the Paradise Mall shopping center areas. The remaining 38,400 trips, or 36 percent of the total, were external trips having one trip end within the study area and the other trip end in other parts of the seven-county Southeastern Wisconsin Region. Most of these trips were made between the study area and other communities in Washington County, in the Cedarburg-Grafton area, and in central Milwaukee County. In addition to the 106,900 trips made within the study area and between the study area and the remainder of the Southeastern Wisconsin Region, an additional 7,200 trips were made between the study area and neighboring counties outside the Southeastern Wisconsin Region, including Fond du Lac, Dodge, and Sheboygan Counties.

EXISTING TRANSIT SERVICES

The first known transit service provided in the West Bend area was established in June 1945 with the start-up by Johnson Bus Service of a local fixed-route bus service known as the West Bend-Barton Bus Line. The single-bus route was operated between downtown Barton and downtown West Bend, as shown on Map 13 in Chapter IV of this report. The Company operated the route until September 1951, when service was discontinued because of low ridership and high operating losses. In addition to school bus and local city bus operations, the Company also experimented with providing other transit services to the West Bend area public. In July 1946 the Company began operation of a bus route between the communities of Hartford, Slinger, West Bend, Newburg, Saukville, and Port Washington. This route, however, was discontinued after only a few months of operation because of low ridership. In April 1947 the Company initiated a taxicab service in the City of West Bend, operating it for only two years before selling it to a successor taxicab company.

Transit services provided within and around the City of West Bend were in 1990 were found to consist of local taxicab service, specialized transportation services to certain population groups, yellow school bus service, and intercity bus service. Currently, regularly scheduled local fixed-route bus service for the general public is not operated by either a private company or by any public entities in the West Bend area.

Taxicab Service

Within the City of West Bend, Veteran's Cab is the only private taxicab company currently providing local public transit service to the general public. Veteran's Cab provides door-to-door service on demand to anyone on an exclusive-ride basis, using a single vehicle. The service area corresponds generally to the West Bend city limits and is available Monday through Saturday from 7:00 a.m. to 9:00 p.m. In 1990 a base fare of $3.75 was charged for all trips of up to three miles in length. An additional charge of $1.20 per mile is assessed for trips longer than three miles, the surcharge applying only to the trip length over three miles. Senior citizens were charged a reduced fare of $3.25, but were also charged $1.20 per mile for trips longer than three miles.

The Washington County Office on Aging administers a user-side subsidy program in the City of West Bend which enables elderly and disabled persons to use the taxicab service at a cost of $1.00 per trip plus a surcharge of $1.20 per mile for trips over three miles in length. An average of 900 trips per month were made in 1990 using the Veteran's Cab service, with the majority of these trips, an average of about 760 trips per month, made under the user-side subsidy program.

Specialized Transportation Services

The transit services in the West Bend area in 1990 were largely made up of specialized transportation services designed to provide mobility to elderly and disabled persons in and around the City of West Bend. Such trips typically require an advance reservation, operate only during certain hours or on certain days, accommodate trips made solely inside Washington County, and use vehicles such as accessible vans and accessible buses, station wagons, and private automobiles. The emphasis of these services is on handling trips for medical and other essential reasons, with some services are available only to residents of specific care facilities.

In 1990 the Washington County Office on Aging administered two specialized transportation services for elderly and disabled residents of Washington County. The first, known as the "Red Bus," provided transportation in the West

Bend area four days a week. The second was the aforereferenced user-side subsidy program for the private taxicab operation in the City of West Bend. The Washington County Department of Social Services provided specialized transportation services to low income individuals and families resident in Washington County. Specialized transportation services were also available in 1990 to the clients of The Threshold, a private social service agency offering referral services, training programs, and employment opportunities to physically and developmentally disabled persons. The Cedar Lake Home Campus, Cedar Ridge retirement campus, and the Samaritan Home also provided specialized transportation services for their respective residents. Specialized transportation services were provided to individuals in the West Bend area, primarily for medical purposes, by the American Cancer Society, the West Bend Chapter of the American Red cross, Specialized Transport Service, Inc., and LP & P Nichols, Ltd. Excluding the trips made under the user-side subsidy program via West Bend taxicab service, as already mentioned, an average of about 12,000 trips per month were made using these specialized services in 1990.

Yellow School Bus Service

Yellow school bus service was provided in 1990 by the West Bend Joint School District to and from the public and private schools in the West Bend School District to all eligible students. Eligible students were those who live from one to two miles from their school, with the distance for eligibility depending on grade level. Students who lived too close to be eligible for yellow school bus service, but who lived along the routes, could use the yellow school bus service if they paid a fare.

Most of the school bus service for the District was provided in 1990, under contract, by Johnson School Bus Service, Inc. The School District also contracted with individual drivers with automobiles to accommodate the transportation needs of special education students. During the 1990-1991 school year, an average 200,000 trips per month were made on all the yellow school bus services.

In 1990, Johnson School Bus Service, Inc., also operated two "cold-weather" routes designed to serve students who were not eligible for yellow school bus service provided by the School District. About 4,000 trips per month are made on this service, for which parents contracted directly with the private transit company.

Intercity Bus Service

In 1990, intercity bus service was provided to the City of West Bend by Greyhound Lines, Inc. The regularly scheduled intercity bus service consisted of trips through the City of West Bend for travel between Eau Claire, Stevens Point, Green Bay, Milwaukee, and Chicago, with about 150 trips per month made between the study area and locations served by the routes. Selected private nonprofit organizations participating in the Wisconsin Department of Transportation program known as "Job Ride" provide transit service for reverse commuter travel from the Milwaukee central city to Serigraph, Inc., in the City of West Bend, with about 250 trips per month made on the service provided in 1990.

EVALUATION OF EXISTING TRANSIT SERVICES

An evaluation of the existing public transit services provided in the study area was conducted to determine how well the transit needs of the resident population were being met. It was determined that specialized transportation services for priority population groups provided some degree of mobility to these groups, but restricted the level of usage through advance reservation requirements and eligibility requirements which limit user participation. In 1990, only the private taxicab company provided the general public with local transit service in the study area. While the service area for the private taxicab operation provided for extensive areal coverage, and thereby served the vast majority of the resident population, major traffic generators, and employment opportunities in the study area, the relatively small size of the taxicab operation, one taxicab vehicle, limited the amount of service that could actually be provided in that service area. As a result, the total annual ridership per capita on the taxicab service in the City of West Bend was far below that experienced in other Wisconsin communities which provide subsidized transit services for the general public.

In addition, the cost of local taxicab service was not competitive with the cost of automobile travel within the study area under some circumstances. The average cost of a trip made by automobile entirely within the study area is

currently estimated to be $0.94 for persons with automobiles driven 10,000 miles per year, substantially below the 1990 base fares for travel by taxi of $3.75 per trip for the general public and $3.25 per trip for elderly or disabled persons and slightly less than the fare of $1.00 per trip for travel by taxicab under the user-side subsidy program. Assuming an annual automobile mileage of 4,000 miles, the average cost of a trip made by automobile entirely within the study area is currently estimated at about $2.07, still below the 1990 base fares for travel by taxicab for both the general public and for elderly and disabled persons but about twice the cost of travel by taxicab under the user-side subsidy program. These automobile travel costs assumed an average automobile cost of about $0.41 per mile for vehicles driven 10,000 miles per year and $0.90 per mile for vehicles driven 4,000 miles per year with an average trip length of about 2.3 miles for trips made within the West Bend study area. The higher cost of travel by taxicab in comparison with travel by automobile is one factor which limits the consideration of the existing taxicab service as an alternative to the automobile for internal travel.

Based on careful evaluation of the information provided it, the Advisory Committee concluded that the major deficiency in the current level of transit service for the City of West Bend was a lack of transit service providers who were capable of effectively serving both the general public and the transit-dependent segments of the population. This deficiency has resulted in a level of use by the city population of the nonsubsidized transit services available far below the level of use found in similar sized Wisconsin communities with publicly subsidized transit services in 1990.

EXISTING TRANSIT LEGISLATION AND REGULATIONS

Federal Legislation

The federal government is a major source of financial assistance to public transit services through four major programs relevant to the City of West Bend study area. The U. S. Department of Transportation, Urban Mass Transportation Administration, administers these programs, which were made available under the Urban Mass Transportation Act of 1964, as amended. Financial assistance for public transit systems is currently available under Section 3, primarily for major capital purchase projects and rapid transit system construction costs; under Section 8, for planning assistance; and under Section 18, on a formula grant basis to recipients in nonurbanized and rural areas for use toward operating assistance and capital equipment purchases. In addition, Section 16(b)(2) provides financial assistance for the purchase of vehicles and equipment to private nonprofit agencies or corporations that provide specialized transportation to elderly and disabled individuals.

State Legislation

The Wisconsin Statutes provide several programs for financing public transportation services. The Wisconsin Department of Transportation administers these programs. They provide financial assistance for both general and specialized transportation, including: an urban transit operating assistance program providing operating assistance to communities with populations of more than 2,500 persons supporting general public transit systems; a specialized transportation assistance program providing financial assistance to counties for elderly and disabled transportation projects; and a specialized transit assistance program which, together with funds available under the UMTA Section 16(b)(2) program, provides capital assistance to private, nonprofit organizations providing specialized transportation services.

The Wisconsin Statutes also provide several organizational alternatives to municipalities for the operation of public transit services. These alternatives include contracting for services with a private operator, public ownership and operation of a municipal utility, and public ownership and operation by a single joint municipal transit commission.

Local Legislation

Local legislation specifically pertaining to transit service is limited to sections of the West Bend municipal code governing the licensing and operation of taxicab services. The taxicab ordinance for the City of West Bend currently restricts taxicab operators to providing only exclusive-ride service to patrons, unless patrons give permission for sharing the vehicle with other patrons. This restriction would limit the eligibility of the existing taxicab service in the City for federal or state financial assistance.

ALTERNATIVE TRANSIT SYSTEM DEVELOPMENT PLANS

In order to evaluate fully the feasibility of providing improved transit service in the West Bend study area, a number of alternative management structures and operational techniques for providing transit service were examined and evaluated.

Alternative Management Structures

The public transit management structures examined included: 1) municipal ownership and operation of the transit system, 2) municipal ownership of the transit system and operation through a competitively awarded contract with a private management firm, and 3) private ownership of the transit system and operation through a competitively awarded contract with a private transit operator.

Alternative Descriptions: Under the first management alternative, the City of West Bend would purchase and own the operating equipment and facilities needed for the transit system and would operate the system using public employees. The City would be responsible for overseeing all activities relating to the administration, as well as day-to-day management and operation of the transit system.

The second management alternative considered would also provide for municipal ownership of the transit system equipment and facilities. This alternative would differ from the previous one in that the City would contract with a private management firm to provide management services, which would include overseeing all activities related to the day-to-day management and operation of the transit system and ensuring that the transit service called for is actually provided. Under this arrangement, the personnel used for day-to-day system operation would be employees of the private firm. The contract with the management firm would cover fees for the management personnel and services provided, but would not cover the other costs incurred in day-to-day operation, such as costs for labor, materials and supplies, and insurance. These other costs would be determined through negotiation and market prices, as under the management alternative proposing municipal operation. The City of West Bend would retain responsibility for overseeing all activities related to system administration, such as planning, route preparation, grant management, and monitoring the activities of the private management firm.

The third management alternative would require the City to contract competitively for the provision of public transit service with a private transit operator, who would supply the necessary operating equipment and facilities as part of the service contract with the City. The private transit operator would have duties and responsibilities similar to those proposed for the private management firm under the previous alternative. However, the service contract with the private transit operator would cover all the costs entailed in system operation, with the exception of administrative costs incurred by the City of West Bend. The vast majority of transit system operating expenses would, therefore, be subject to a competitive bidding process.

Recommendations: After considering the major advantages and disadvantages of each management structure as identified in Table 32 in Chapter VII of this report, the Advisory Committee recommended that the transit system be operated by a private transit operator selected on the basis of competitive bids. Contracting for transit services in this manner would relieve the City of the details of day-to-day system management and operation, thereby minimizing city personnel requirements. In addition, since the vast majority of transit system operating expenses would be subject to a competitive bidding process, competition among interested transit operators for the service contract could provide some economies in the annual operating expenditures for transit service.

The Committee also recommended that the equipment and facilities needed to operate any transit system ultimately be purchased and owned by the City of West Bend and leased back to the private transit operator to provide the proposed transit services. This recommendation recognized that city ownership of the necessary operating equipment would provide for better control over equipment selection and ensure that appropriate equipment and facilities would be used in operating the transit system. In addition, city ownership of the necessary equipment could result in more competition for the city service contract, since it would remove some risk to private operators which would be associated with supplying operating equipment. Finally, this recommendation recognized that purchase

of the necessary capital equipment and facilities by the City with public funds could be easier than purchase by the private operator using his own financial resources because of because of the potential availability to the City of federal transit capital assistance funds.

Alternative Transit Service Plans

Three basic transit service alternatives were evaluated for the West Bend area: 1) do nothing to encourage or support improved local transit services, 2) provide fixed-route transit service, and 3) provide demand-responsive transit service. It was assumed that operation of any proposed new transit system would begin at the start of calendar year 1992, which is the earliest that state and federal operating assistance funds could be obtained to help defray operating expenses. Meeting this start-up date required other key assumptions, the most important being that the private transit operator would initially be responsible for supplying the operating equipment and facilities needed to initiate transit system operation. This assumption recognized that acquisition of the necessary operating equipment by the City using federal transit capital assistance funds would take up to two years, with such publicly purchased equipment probably not being available until during 1994. To simplify the comparison of costs among alternatives, all financial projections for the transit service alternatives were presented in constant 1990 dollars, that is, they assumed no change in transit fares, no inflationary increases in operating expenses, and stable levels of federal and state funding over the planning period.

Alternative 1: The first transit service alternative considered in the study was a continuation of the present situation. Under this status quo alternative, the City would do nothing requiring the expenditure of public funds to subsidize any type of public transit service. A privately operated local taxicab service would continue to be the only local transit service available to the general public within the study area. Specialized transit services for priority population groups would continue to be offered by public and private agencies and organizations. The cost of providing these services would continue to be supported through the fares charged for their use and through the budgets of the sponsoring public and private agencies.

Alternative 2: Under the second transit service alternative considered, a fixed-route transit service would be established in the City of West Bend. Fixed-route transit service would be provided, using cycle scheduling, over a system of radial, or loop, routes, with all vehicles serving each route meeting at regular intervals at a common transfer point in the central business district. Service would be provided over all bus routes at 40-minute headways during all hours of operation. It was assumed that one-way user fares of $0.75 for adults, $0.50 for students, and $0.35 for elderly and disabled persons would be established, fares consistent with the median 1990 fares charged on other fixed-route bus systems in Wisconsin serving communities similar in size to West Bend.

It was also assumed that 25- to 30-foot-long heavy-duty transit buses, similar to the one in Figure 5 in Chapter VII of this report, would be used to provide fixed-route transit service, with all buses wheelchair-accessible to accommodate disabled persons, in accordance with current federal regulations. The size of the buses proposed for providing fixed-route bus service in the City of West Bend reflected the operating experiences of other fixed-route transit systems in Wisconsin, which found that buses of this size would be needed to accommodate the peak passenger loads which would be expected to be generated by area schools. However, the full capacity of the buses would be needed for only a few trips in the morning and afternoon periods; during most hours of system operation, the full capacity of the proposed buses would not be used. In some Wisconsin communities, this same situation has resulted in some public officials questioning the need for the operation of large-capacity buses and proposing the operation of smaller-capacity buses to avoid the public perception that the transit system was being underutilized during nonpeak ridership periods. For this reason, the use of smaller-capacity buses, similar to the one shown in Figure 6 in Chapter VII of this report, for a fixed-route transit system was suggested as an option for the City to consider if fixed-route transit service were to be recommended.

Other capital equipment needed for this alternative included fareboxes and mobile radios for each bus, a bus storage and maintenance facility, and bus stop signs and passenger shelters. In addition to fixed-route bus service, accessible specialized transportation service would also need to be provided for disabled individuals who

would be unable to use the accessible equipment operated on the regular transit routes.

Three subalternatives representing different levels of service area coverage and periods of operation were considered.

- Under Subalternative 2A, the transit system would consist of six bus routes which would provide excellent service area coverage of all existing and proposed areas of residential, commercial, and industrial development within the City of West Bend, serving about 24,300, or 99 percent, of the 24,600 city residents in 1990. Transit service would be provided over these routes on weekdays from 6:00 a.m. to 6:00 p.m. and on Saturdays from 9:00 a.m. to 4:00 p.m. The proposed bus routes and areas served under this subalternative are shown on Map 15 in Chapter VII of this report.

  Annual ridership under this subalternative would be expected to approximate 128,000 revenue passengers by the end of the first year of operation, in 1992, and would be expected to increase by nearly 41 percent to about 181,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be expected to decrease over the five year planning period with increases in ridership from about $223,000 in 1992 to about $171,000 by 1996. The expected capital expenditures under this alternative for the purchase of eight buses plus other operating equipment would total about $2,148,000. Assuming that federal transit capital assistance funds would be available to offset between 75 and 80 percent of these capital costs under either the federal Urban Mass Transportation Administration Section 3 or Section 18 programs, the city share of the required costs would be between $430,000 and $537,000. The total average annual public cost for operating subsidies and capital expenditures for this alternative approximated $843,000, with the city share of these average annual costs foreseen as between $221,000 and $228,000.

- Under Subalternative 2B, the transit system would consist of five fixed bus routes operated during the same weekday and Saturday service hours as proposed for Subalternative 2A. Transit service area coverage under this subalternative would be somewhat less extensive than under Subalternative 2A, as bus routes would not serve some areas of new residential and commercial development in the western and southwestern portions of the City. This alternative would still be expected to serve about 23,900, or 97 percent, of the 24,600 city residents in 1990. The proposed bus routes and areas served under this subalternative are shown on Map 16 in Chapter VII of this report.

  Annual ridership under this subalternative would be expected to approximate 115,000 revenue passengers by the end of the first year of operation, 1992, and would be expected to increase by nearly 42 percent to about 162,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be foreseen to decrease, with increases in ridership, over the five year planning period, from about $184,000 in 1992 to about $138,000 in 1996. The capital expenditures which would be incurred under this alternative for the purchase of seven buses and other operating equipment would total about $1,977,000. Assuming that federal transit capital assistance funds would be available under the aforementioned federal programs to offset between 75 and 80 percent of these total capital costs, the city share of the required capital costs would be between $395,000 and $494,000. The total average annual public cost for operating subsidies and capital expenditures for this alternative approximated $707,000, with the city share of these average annual costs expected to be between $182,000 and $189,000.

- Under Alternative 2C, the transit system would consist the same five-route bus system proposed for operation under Subalternative 2B, but service would be restricted to weekdays only from 6:00 a.m. to 6:00 p.m., with no service provided on Saturdays.

  Annual ridership under this subalternative would be expected to approximate 105,000 revenue passengers by the end of the first year of operation, 1992, and would be expected to increase by about 43 percent to about 150,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be

expected to decrease, with increases in ridership, over the five year planning period, from about $167,000 in 1992 to about $121,000 by 1996. The capital projects and expenditures for Subalternative 2C would be about the same as those proposed for Subalternative 2B. The total average annual public cost for operating subsidies and capital expenditures for this alternative approximated $649,000, with the city share of these costs expected to be between $166,000 and $172,000.

Alternative 3: The third transit service alternative considered would provide a demand-responsive transit service for the general public through the operation of a publicly subsidized shared-ride taxicab system. The major difference between the proposed shared-ride taxicab service and the current private taxicab service would be that passengers with different trip origins and destinations would be allowed to share a taxicab for all or portions of the trip. For analytical purposes, it was assumed that one-way user fares of $2.00 for adults, $1.50 for students, and $1.00 for elderly and disabled persons would be charged, fares consistent with the median 1990 fares charged on other shared-ride taxicab systems in Wisconsin serving communities similar in size to West Bend.

It was also assumed that a fleet of wheelchair-accessible vans or minivans, similar to the one shown in Figure 7 in Chapter VII of this report, would be needed to serve as taxicab vehicles in order for the shared-ride taxicab service to comply with current federal requirements prescribing accessibility standards for disabled persons. Other capital equipment needed under this alternative would include a mobile radio system for dispatching the taxicabs. The acquisition of a major facility for vehicle storage and maintenance was not proposed under this alternative, because it is not common practice for such major facilities to be provided in other similar sized Wisconsin communities with publicly subsidized shared-ride taxicab systems. The transit service provided under this alternative would provide complete coverage of all existing and proposed areas of residential, commercial, and industrial development in the City of West Bend.

Three subalternatives representing different days and hours of operation of the shared-ride taxicab system were considered:

- Under Subalternative 3A, shared-ride taxicab service would be provided on weekdays from 6:00 a.m. to 6:00 p.m., and on Saturdays from 9:00 a.m. to 4:00 p.m. Annual ridership under this subalternative would approximate 31,000 revenue passengers by the end of the first year of operation, 1992, and would be expected to increase by about 29 percent to about 40,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be expected to decrease, with increases in ridership, over the five year planning period, from about $25,000 in 1992 to about $5,000 in 1996. The capital expenditures which would be incurred under this subalternative for six van-type taxicab vehicles and other operating equipment would total about $211,000. If federal transit capital assistance funds would be available under the aforementioned federal programs to offset between 75 and 80 percent of the total capital costs, the city share of the required capital costs would be expected to approximate $42,000. The total average annual public cost for operating subsidies and capital expenditures for this subalternative approximated $133,000, with the city share of the average annual costs expected to be between $21,000 and $23,000.

- Under Subalternative 3B, shared-ride taxicab service would be provided on weekdays and on Saturdays from 7:00 a.m. to 9:00 p.m. Annual ridership under this subalternative would be expected to approximate 34,000 revenue passengers by the end of the first year of operation, 1992, and would be expected to increase by about 26 percent to about 43,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be expected to decrease, with increases in ridership, over the five year planning period, from about $30,000 in 1992 to about $10,000 in 1996. The capital projects and expenditures for Subalternative 3B would be about the same as for Subalternative 3A. The total average annual public cost for operating subsidies and capital expenditures for this subalternative approximated $152,000, with the city share of these average annual costs expected to be between $25,000 and $27,000.

- Under Subalternative 3C, shared-ride taxicab service would be provided on weekdays and Saturdays from 6:00 a.m. to 10:00 p.m., and also on Sundays and holidays from 8:00 a.m. to 2:00 p.m. Annual ridership under this subalternative would be expected to approximate 37,000 revenue passengers in 1992, and would be expected to increase by about 27 percent to about 47,000 revenue passengers by 1996. The local share of the annual operating deficit under this subalternative would be expected to decrease, with increases in ridership, over the five year planning period, from about $33,000 in 1992 to about $12,000 in 1996. The capital projects and expenditures for Subalternative 3C would be about the same as those proposed for Subalternative 3A. The total average annual public cost for operating subsidies and capital expenditures for this subalternative approximate $164,000, with the city share of these average annual costs expected to be between $28,000 and $30,000.

Evaluation of Transit Service Alternatives: The results of the analysis and evaluation of the transit service alternatives considered indicated that institution of either fixed-route or shared-ride taxicab transit service would be feasible in the West Bend area. The analyses indicated that the ridership and financial performance of both the fixed-route and shared-ride taxicab transit services may be expected to fall in the range of ridership and financial performance observed in similar transit systems operated in other communities in Wisconsin. The evaluative comparison of the alternative fixed-route and shared-ride transit services considered was based upon service area coverage, annual ridership, service productivity, projected public costs, and service efficiency and effectiveness. The major differences between both, and the major advantages of each, of the alternative service plans were thus identified and are presented in Table 43 in Chapter VII of this report.

The major advantage of fixed-route transit service was found to be its ability to serve a greater range of user markets and, consequently, generate significantly higher annual ridership levels than shared-ride taxicab service. By 1996, ridership on the fixed-route transit service was projected to range from about 150,000 to 181,000 revenue passengers per year, compared with from 40,000 to 47,000 revenue passengers per year with shared-ride taxicab service. Fixed-route bus service was, therefore, expected to generate three to four times the ridership expected under a shared-ride taxicab service. Both alternative transit services were expected to be able to serve equally the tripmaking needs of elderly and/or disabled persons, persons residing in low income households, and persons in households with limited access to an automobile. The fixed-route transit service proposed under Alternative 2, however, would also be expected to be used for school trips made by students at elementary and secondary schools not eligible for yellow school bus service residing between one and two miles from school and also for some work trips made by the general population.

The major advantage of shared-ride taxicab service was found to be the substantially lower public cost. The total average annual public cost for both operating subsidies and capital expenditures under the shared-ride taxicab service alternative would be expected to range from about $133,000 to $164,000 per year over the planning period, with the local share of these average annual costs expected to range from about $21,000 to $30,000. In comparison, the total average annual public cost under the fixed-route transit service alternative would be expected to range from about $649,000 to $843,000 per year over the planning period, with the local share of these costs expected to range from about $166,000 to $228,000 per year.[1] The total public costs for the shared-ride taxicab service were, therefore,

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[1] *As previously noted, the above costs assume no changes in fares, operating expenses, or federal and state operating assistance levels over the planning period. While passenger fares and state aid levels could be expected to remain stable, modest increases in transit system operating expenses, along with declines in federal transit operating assistance levels, could be expected to occur, based on recent trends. This could result in a total average annual public cost for the shared-ride taxicab service alternative of between $157,000 and $196,000, with the local share of these costs ranging from about $35,000 to $49,000. In comparison, the total average annual public cost for the fixed-route transit service alternative would be expected to be between $775,000 and $985,000, with the local share of these costs ranging from $237,000 to $324,000.*

expected to be one-fifth to one-sixth the costs of the fixed-route transit service; the local share of the total public costs were expected to be from one-seventh to one-eighth of the local costs of fixed-route transit service.

Other differences were also noted between the fixed-route and shared-ride taxicab transit service alternatives with respect to fares and service quality. Given the levels of public subsidy assumed, users in all markets could expect to pay significantly lower fares for trips made on fixed-route transit service, that is, one-way fares of $1.00 per adult, $0.50 per student, and $0.35 for elderly and disabled persons, compared with one-way fares of $2.00 for adults, $1.50 for students, and $1.00 for elderly and disabled persons under shared-ride taxicab service. All users of the shared-ride taxicab service, however, would be able to use a single vehicle to travel between their specific trip origin and destination. Users of the fixed-route transit service would be required to walk from their specific trip origin and to their destination to and from the closest bus stop, and possibly to transfer to a second vehicle to complete their trip. Shared-ride taxicab service may also be expected to have somewhat lower costs per revenue passenger with the total average annual public cost per revenue passenger and the local average annual public cost per revenue passenger of $3.10 to $3.77 and $0.56 to $0.68, respectively. In comparison, fixed-route bus service may be expected to have a total average annual public cost per revenue passenger and a local average annual cost per revenue passenger of $4.86 to $5.21 and $1.24 to $1.41, respectively.

Recommendation

After careful review of the evaluative comparison of the alternative systems considered, the Advisory Committee recommended adoption of the shared-ride taxicab system. In making this recommendation, the Advisory Committee indicated they were strongly influenced by the higher quality of service associated with the shared-ride taxicab service alternative as well as by the lower costs associated with that alternative. More specifically, the Advisory Committee unanimously recommended that the shared-ride taxicab service provided should be that defined under Subalternative 3C. That subalternative would provide for operation of the proposed shared-ride taxicab system seven days a week, with hours of operation on weekdays and Saturdays proposed to be 6:00 a.m. to 10:00 p.m.; and on Sundays and holidays proposed to be 8:00 a.m. to 2:00 p.m. In making this recommendation, the Advisory Committee recognized not only that this subalternative would provide more service than the other shared-ride taxicab subalternatives considered, but also that it would require more public subsidy for annual operation. In addition, while endorsing the basic fare structure assumed in the evaluation of transit service alternatives, the Advisory Committee recommended that the City consider instituting the recommended shared-ride taxicab service with lower one-way fares of $1.50 for adults, $1.00 for students, and $0.75 for elderly or disabled persons. The Committee believed that, while these fares would require a higher level of local subsidy, they would also serve to encourage ridership on the transit system.

THE RECOMMENDED PLAN

Operating Characteristics

The recommended transit system development plan calls for the establishment of a publicly supported demand-responsive transit service in the West Bend area providing service to the general public. The recommended demand-responsive transit service would be provided through the operation of a publicly subsidized shared-ride taxicab system.

The recommended shared-ride taxicab service would be similar in some respects to the private taxicab service currently provided in the City of West Bend. Prospective users would place their request for service by telephoning the contract taxicab operator. A vehicle would be scheduled to pick up the user within a maximum waiting period of 30 minutes. Upon reaching the destination, users could leave instructions with the driver for a return trip at a specified time. The recommended taxicab service would differ from the current exclusive-ride private taxicab operation with respect to the sharing of the taxicab vehicle by patrons with different trip origins and destinations. Under a shared-ride taxicab operation, the taxicab operator is able to simultaneously transport passengers having different trip origins and destinations. The sharing of taxicab vehicles in this manner provides for better equipment utilization, which leads to a more efficient and less costly operation.

Shared-ride taxicab service is recommended to be initially provided on weekdays and Saturdays from 6:00 a.m. to 10:00 p.m.; and on Sundays and holidays from 8:00 a.m. to 2:00 p.m. Service during these periods would initially be provided as a many-to-many type of service, that is, it would provide service between any trip origin and destination within the City without limitation. The service could, however, be changed over time for other services such as many-to-one, many-to-few, and subscription service serving major trip generators. The service could also, over time, evolve into a fixed-route bus system in high transit travel demand corridors. Such corridors would be identified through actual operating experience with the shared-ride taxicab operation.

Consideration was given to the service area for the recommended shared-ride taxicab system. The Advisory Committee recommended that shared-ride taxicab service be provided to serve all trips which have one end in the City of West Bend. This would include all trips made entirely between origins and destinations within the corporate limits of the City of West Bend, as well as trips made by both City and exurban residents between locations in the City and locations in the immediately surrounding areas outside the City. In the interest of equity, higher fares would be charged for trips made to and from locations outside the City. The Advisory Committee recommended that trips with origins and destinations located entirely outside the City not be served by the taxicab system.

The Advisory Committee recommended that one-way base cash fares be established at $2.00 per adult trip, with fares of $1.50 for students and $1.00 for elderly and disabled persons. No fare would be required for children four years of age and under when accompanied by an adult passenger. In addition, it is proposed that special convenience fares, providing substantial discounts from the regular cash fares, be established. For trips with origins or destinations outside the City of West Bend, the Advisory Committee recommended that an additional $1.00 per vehicle mile be charged for the distance traveled outside the City limits. The shared-ride taxicab operator would also be allowed to pick up and deliver small packages during the system's off-peak hours, with charges for this service set to cover the total costs associated with providing it.

While implementation of the recommended transit system with the above fare structure was endorsed by the Advisory Committee, the Committee also recommended that consideration be given by the City to providing a higher level of public subsidy so that the recommended taxicab service could be initiated with lower one-way fares of $1.50 for adults, $1.00 for students, and $0.75 for elderly and disabled persons. A comparison of the ridership and financial performance of the transit system with the recommended fare structure and with the lower fares proposed by the Advisory Committee for consideration by the City indicated that projected 1996 ridership may be expected to increase by about 12 percent over ridership levels under the recommended higher fares. The local operating subsidy needed in 1996 from the City of West Bend may also be expected to increase by about 90 percent, expressed in constant 1990 dollars. The increased ridership would require higher service levels than previously assumed, but it is not envisioned that additional operating equipment would be needed.

Ownership and Management

It is recommended that the transit system be operated by a private transit operator selected on the basis of competitive bids. Contracting for transit service in this manner would relieve the City of the details of day-to-day system management and operation, thus minimizing city personnel requirements. In addition, since much of the transit system operating expenses would be subject to a competitive bidding process, competition among interested transit operators for the service contract could provide some economies in the annual operating expenditures for the transit service.

It is also recommended that the operating equipment and facilities needed to operate the transit system ultimately be purchased and owned by the City of West Bend and leased back to the private transit operator to provide the proposed transit services. This recommendation recognizes that city ownership of the necessary operating equipment would provide for better control over equipment selection and ensure that appropriate equipment and facilities would be used in operating the transit system. In addition, city ownership of equipment could result in more competition for the city transit service contract since it would remove some risk to private operators which would be associated with sup-

plying operating equipment. Finally, this recommendation recognizes that purchase of the necessary capital equipment and facilities by the City with public funds could be easier than purchase by the private operator using his own financial resources because of the potential availability to the City of federal transit capital assistance funds. While public ownership of the necessary operating equipment is recommended, the private transit operator would initially be responsible for supplying the operating equipment and facilities needed to begin transit system operation at the start of calendar year 1992. Acquisition of the necessary operating equipment by the City using federal transit capital assistance funds would take up to two years, with such publicly purchased equipment probably not being available until 1994.

Ridership and Financial Performance

Projections of transit system ridership and operating revenues reflect the fare structure recommended by the Advisory Committee. In addition, whereas the financial projections used to evaluate alternative transit service plans were presented in constant 1990 dollars to facilitate ready comparison of the costs of the alternative transit services, all financial projections for the recommend transit system are expressed in projected "year of expenditure" dollars. This is because, while transit fares could be expected to remain stable over the planning period, transit system operating expenses could be expected to increase modestly and federal transit assistance funds could be expected to decline.

Operated in the aforementioned manner, the transit system would provide complete service area coverage of all existing and proposed areas of residential, commercial, and industrial development in the City of West Bend and the immediately surrounding area. Annual ridership on the system would be expected to be about 37,000 revenue passengers by the end of the first year of operation, 1992, and would be expected to increase by about 27 percent to about 47,000 revenue passengers by 1996.

Total annual operating expenses for the transit system would initially be high because of charges by the private transit operator for supplying privately owned equipment and facilities, and would be expected to be about $220,000 in 1992. These expenses would decline slightly after publicly owned equipment is purchased and delivered, and would be expected to be about $209,000 by 1996. Total annual operating revenue would be expected to increase, with increases in ridership on the system, over the planning period, from about $46,000 in 1992 to about $59,000 by 1996. The total annual operating deficit for the transit system would, thus, be expected to decline over the period, from about $174,000 in 1992 to about $150,000 by 1996. The local share of the operating deficit, however, would be expected to remain about the same over the period, ranging from about $42,000 in 1992 to about $41,000 by 1996 despite anticipated declines in federal transit operating assistance funds. The average annual operating subsidy required from federal, state, and local funding sources for the proposed transit system over the five year period would be expected to be about $156,000. Of this amount, about $39,000 would represent the average annual operating subsidy for the City of West Bend.[2]

Capital Projects

The capital projects required for full implementation of the recommended transit system would include the purchase of six wheelchair-accessible small vans or minivans, four for system operation and two for spares, to serve as a fleet of taxicab vehicles; the purchase of a mobile radio

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[2]*The above costs may be compared to the costs of the recommended transit system expressed in 1990 constant dollars, which assume no inflationary increases in operating expenses, no change in passenger fares, and stable federal transit operating assistance levels over the planning period. In constant dollars, operating expenses for the transit system would be expected to be about $201,000 in 1992 and would be expected to decline to about $164,000 by 1996. Passenger revenues would be expected to increase from about $46,000 in 1992 to about $59,000 in 1996. The total transit system operating deficit could also be expected to decline from about $155,000 in 1992 to about $105,000 in 1996. The City's share of the operating deficit would be expected to decline from about $32,000 in 1992 to about $12,000 by 1996. The average annual operating subsidy required from federal, state, and City funding sources over the five year period would be about $124,000, of which about $20,000 would represent the average annual operating subsidy required from the City of West Bend.*

system to control the dispatching of taxicab vehicles; and the purchase of a teletypewriter system to enable disabled persons with hearing or speech impairments to request service or transit system information. The total cost of these capital projects is estimated at $214,000. Of this amount, between $161,000 and $171,000, or 75 to 80 percent, could be funded through the federal Urban Mass Transportation Administration Section 3 discretionary capital grant program or Section 18 formula transit assistance program, respectively. The remaining $43,000 to $53,000, or 20 to 25 percent, of the total capital costs would need to be funded by the City of West Bend. The average annual financial commitment for capital projects would be about $40,000, of which between $8,000 and $10,000 would represent the average annual cost to the City of West Bend.

The availability of federal transit capital assistance from either of the programs cited above for the recommended West Bend transit system cannot be guaranteed. Grants under the federal Urban Mass Transportation Administration Section 3 program are made at the discretion of the Secretary of the U. S. Department of Transportation. Competition is high for the limited amount of Section 3 funds available for projects such as those proposed for the City of West Bend. The limited amount of federal Urban Mass Transportation Administration Section 18 formula assistance funds currently allocated to the state of Wisconsin also makes the availability of funding under this program uncertain. As a result of the current policy followed by the Wisconsin Department of Transportation in administering the Section 18 program in Wisconsin for the federal government, no funds are currently available for transit capital assistance projects under the Section 18 program. Assuming that there will not be a significant increase in the annual allocation to the state of federal Section 18 formula assistance funds, use of the Section 18 program to fund the recommended capital projects would require a change in the current administrative policy of the Wisconsin Department of Transportation for the Section 18 program.

Plan Implementation

There are five basic steps involved in the establishment of the recommended shared-ride taxicab system in the City of West Bend.

The first step requires the City of West Bend to seek community comment on, and approval of, the recommendations of the transit system development plan. It is recommended that the City of West Bend schedule a public informational meeting and hearing in 1991 at which time questions from the general public concerning the recommended transit system could be answered and comments recorded. A further step in this respect would be for the City to hold a citywide advisory referendum on the establishment of the public transit system. Since a shared-ride taxicab system is being recommended, such a referendum would be an optional step, not required by any state regulations. An advisory referendum was not, however, considered, in the opinion of the Advisory Committee, to be necessary, since the City has initiated, without submission to referendum, other past programs which required larger expenditures of city tax dollars than those projected for the recommended transit system. This step would, however, represent a good means to assess the reaction of the West Bend community to the commitment of public tax monies to support the operation of the recommended transit system.

The second step required for implementation of the recommended system is the adoption or endorsement of the transit system development plan by the public bodies and agencies providing operating or financial support. It is recommended that the City of West Bend Common Council adopt the recommendations of the transit system development plan as a guide for the provision of public transit service in the City of West Bend and, further, act to establish a public transit system in the West Bend area. As previously discussed, the Common Council may choose to be guided in its consideration of these actions by the results of an advisory citywide public referendum on the establishment of a shared-ride transit taxicab service public transit system. It is also recommended that the Southeastern Wisconsin Regional Planning Commission act to incorporate the transit system development plan into its current long-range transportation system plan for the Southeastern Wisconsin Region. Finally, it is recommended that the Wisconsin Department of Transportation, which administers both the federal Urban Mass Transportation Administration Section 18 formula transit assistance program for the federal Urban Mass Transportation Administra-

tion in Wisconsin and the state urban mass transit operating assistance program, act to adopt or endorse the transit system development plan and use this document as a guide in the programming, administration, and granting of both federal and state transit assistance funds to the City of West Bend.

The third step required for implementation of the recommended transit system would be the establishment of a policy making body to oversee the creation and ultimate operation of the transit system. The Common Council could consider creating a transit system utility, as authorized under Sections 66.066 and 66.068 of the Wisconsin Statutes, with a specific management board of commissioners to serve as such a body. In the alternative, the Common Council could provide for the operation of the utility by the Board of Public Works or by a designated municipal officer.

The fourth step required for implementation of the recommended transit system is the procurement of the recommended transit services and necessary operating equipment from the private transit operator. It is recommended that the City solicit competitive bids from interested private transit operators, using a formal Request for Proposals process. The service contract would then be awarded on the basis of the qualifications of each prospective contractor and the contractor's bid of costs to provide the service.

The fifth step required for implementation of the recommended transit system is preparation of the transit system operating budget and the financial assistance applications for state and federal funding. It is recommended that funds be sought from the various transit assistance programs available through the federal Urban Mass Transportation Administration and the Wisconsin Department of Transportation to offset a portion of the annual operating subsidies and total capital expenditures required to implement the recommended transit system. A combined application for both federal and state transit operating assistance funds must be completed and submitted to the Wisconsin Department of Transportation by November 15, 1991, to allow sufficient time for the preparation of federal and state transit operating assistance contracts between the State of Wisconsin and the City of West Bend for calendar year 1992. It is also recommended that the City of West Bend monitor the availability of federal transit capital assistance funds through the federal Urban Mass Transportation Administration Section 18 formula assistance program for 1992 and subsequent years. Should federal transit capital assistance funds not be available through this program for the recommended capital projects, the City of West Bend should seek federal transit capital assistance through the Section 3 discretionary grant program. To obtain these funds, the City of West Bend could either request that the Wisconsin Department of Transportation apply for such funds on its behalf, or it could prepare and submit its own application directly to federal Urban Mass Transportation Administration.

CONCLUSION

Adoption and implementation of the transit system development plan recommended in this report would provide residents of the West Bend area with a level of transit service capable of satisfying local transportation needs. The major criticism of the existing level of transit service in the West Bend area has been its inability to serve effectively both the general public and the transit-dependent segments of the population. The recommended transit system would provide a viable alternative to the private automobile and, at the same time, provide increased accessibility to major land use activity centers for those population groups that must rely on public transportation as the primary means of satisfying their personal travel needs.

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APPENDICES

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Appendix A

GLOSSARY OF TECHNICAL TERMS

The following list provides definitions of certain technical terms used in this planning report. It should be recognized that while some of these terms may have different meanings when used in a study not related to transportation, or even slightly different meanings when used in other transportation studies, the definitions set forth herein are those used in the preparation of the transit system feasibility study and development plan for the City of West Bend.

AVERAGE SPEED: The speed which a transit vehicle achieves between stops, including acceleration, deceleration, and dwell time.

CAPITAL EXPENSE: The outlay of funds for the acquisition of operating equipment and the construction of support facilities necessary to implement a particular plan or project.

CIRCULATION DISTRIBUTION SERVICE: Local public transit service provided for the movement of passengers within major urban activity centers.

CYCLE SCHEDULING: A scheduling technique for providing fixed-route urban public transit service under which the vehicles providing service meet at a common location at the same time, thus maximizing the opportunity for transfer of passengers between routes.

DEADHEAD: The movement of a revenue vehicle without passengers on board, such as from a storage area to the beginning of a regular route.

DEMAND-RESPONSIVE SERVICE: A range of local public transit services characterized by the flexible routing and scheduling of relatively small vehicles to provide shared-occupancy, door-to-door personalized transportation on demand.

DEPRECIATION EXPENSE: A portion of the original cost of capital facilities or equipment allocated to the annual cost of operation. Depreciation expenses are derived by spreading, in some equitable manner, the original cost of the facility or piece of equipment, less any salvage value, over the useful life of the facility or piece of equipment.

DISABLED PERSON: A person who, by reason of illness, injury, congenital malfunction, or other permanent or temporary incapacity or disability, is physically unable to use regular bus service.

DWELL TIME: The amount of time a transit vehicle stands at a station or stop while picking up or discharging passenger(s).

ELDERLY PERSON: A person 65 years of age or older.

EXPRESS SERVICE: That component of the urban public transportation system which serves moderate-length trips, generally over arterial streets and highways, with limited stops located only at intersecting transit routes, intersecting arterial streets, and major traffic generators.

FAREBOX RECOVERY RATE: The ratio of revenues generated by passenger fares to operating expenses expressed as a percent.

FAREBOX REVENUE: See "Passenger Revenue."

FAR-SIDE STOP: A transit stop located on the far side of a street intersection which requires that the transit vehicle cross the intersection before stopping to pick up or discharge passengers.

FIXED EXPENSE: A cost of providing transit service that remains relatively constant, irrespective of the level of operational activity.

FIXED-ROUTE: Refers to a transit service or system wherein buses or other vehicles operate on a predetermined route with specific stops or station locations and regular schedule.

GRID ROUTING: A routing technique for providing fixed-route urban transit service under which bus routes are laid out in a distinct grid or rectangular pattern, and do not focus on a single geographic location. Because passengers must transfer at route intersections, systems using grid routing usually must operate with a high level of service, that is, with short headways, to minimize waiting time.

HANDICAPPED PERSON: See "Disabled Person."

HEADWAY: The time interval between any two successive transit vehicles providing service on the same route in the same direction.

INCREMENTAL EXPENSE: The net difference in cost between two alternative plans or programs.

LEVEL OF SERVICE: A set of characteristics that indicate the quality and quantity of public transportation services being provided, including characteristics that are readily quantifiable, such as headway, travel time, travel cost, and number of transfers, and also those that are difficult to quantify, such as comfort and the public's image of each transportation mode.

LOAD FACTOR: The ratio of passengers carried on a public transit vehicle to the number of seats on the vehicle.

LOCAL SERVICE: That component of the urban public transportation system which serves the shortest trips and operates at lowest average speeds. Local transit services can provide a collection-circulation-distribution service for rapid or express transit services and include fixed-route, demand-responsive, and route-deviation transit services.

MAJOR TRAFFIC GENERATOR: A land use area or specific facility which attracts a high volume of person trips.

MASS TRANSPORTATION: See "Transit."

NEAR-SIDE STOP: A transit stop located on the near side of a street intersection which permits the transit vehicle to pick up or discharge passengers before crossing the intersection.

NONCYCLE SCHEDULING: A scheduling technique for providing fixed-route urban public transit service under which each transit route in a community has transit service scheduled on an individual basis independent of the schedules of other routes.

OPERATING DEFICIT: The operating expense minus the operating revenue.

OPERATING EXPENSE: The sum of all transit system costs incurred in providing transportation and incidental services and in maintaining transit system equipment and property.

OPERATING REVENUE: Revenue derived from the provision of public transit service including: 1) fares paid by transit riders; 2) charter and special contract service revenues; and 3) revenues, for example, from the sale of advertising space aboard transit vehicles, income from concession rentals, or income from contract maintenance services.

OVERALL TRAVEL SPEED: The over-the-road travel distance divided by the overall travel time.

OVERALL TRAVEL TIME: The total door-to-door time for travel between the origin and destination of a trip, including all the major components of travel time which, for transit travel time, include walking or automobile driving as access at origin, wait time for the first transit vehicle boarded, transfer time, total line-haul or in-vehicle time, and egress time at the destination.

PASSENGER REVENUE: Revenue derived from fares paid by passengers traveling aboard public transit vehicles operating in regular service.

PEAK PERIOD: The hours, usually during weekday mornings or afternoons, when the demand for transportation service is the heaviest.

PLATFORM HOURS: The total driver pay-hours for a transit system, including time spent in scheduled revenue service, checkin and checkout time, deadhead time, and time guaranteed under union labor contracts.

PRIVATE PROVIDER: A privately owned entity that owns facilities and vehicles used to provide transit services.

PUBLIC PROVIDER: Any transit service provider who is not defined as a private provider.

PUBLIC TRANSIT: Transit systems and services that may be used by the general public and not restricted to use by specific population groups.

PULSE SCHEDULING: See "Cycle Scheduling."

RADIAL ROUTING: A routing technique for providing fixed-route urban transit service under which bus routes originate in outlying areas and converge on a central location, usually the central business district. The routes generally follow a radial street system and coincide with the locations of major travel corridors. Because routes focus on a central location, systems using radial routing frequently use cycle scheduling to provide for convenient transfers between routes.

RAPID TRANSIT SERVICE: That component of the urban public transportation system which provides the highest average speeds by generally operating over freeways, thus serving the longest trips along the most heavily traveled corridors, with stops generally limited to the ends of the route, including outlying parking terminals.

REVENUE PASSENGERS: Includes all boarding passengers who pay a fare, or for whom a fare is paid by another under contract or other special arrangement, for travel between a specific origin and destination; excludes boarding passengers who are not required to pay a fare or who are transferring to a different bus route to complete a trip started on another route.

REVENUE VEHICLE HOURS: The number of hours spent by transit vehicles in providing scheduled revenue transit service. Excludes all deadhead and driver time not spent in revenue service.

REVENUE VEHICLE MILES: The number of miles traveled by transit vehicles in providing scheduled revenue transit service. Excludes deadhead miles.

ROUTE-DEVIATION SERVICE: A type of service which includes both fixed-route and demand-responsive elements, in which buses provide service at regular intervals between checkpoints along an established route, but are permitted to deviate from the route between checkpoints to make doorstop pickups and dropoffs.

SEATED CAPACITY: The number of seated passengers capable of being carried in a transit vehicle.

SHARED-RIDE TAXICAB: A taxicab which is legally able to transport passengers having different origins and destinations simultaneously.

SMALL URBAN AREA: An area that includes a city or village having a population of at least 2,500, but not more than 49,999, persons.

SPECIALIZED TRANSIT: Transit systems and services that are designed for, and whose use is restricted to, specific subgroups of the general population, such as the elderly, disabled, and school children.

STOP: An area usually designated by distinctive signs or by curb or pavement markings at which passengers wait for, and board or alight from, public transit vehicles.

TERMINAL: The end of a transit route or a transit station which is designed to handle not only the movement of transit vehicles in the boarding and alighting of passengers, but also the transfer of movements between routes and/or different modes.

TOTAL EXPENSE: The sum of operating and capital costs.

TOTAL VEHICLE HOURS: See "Platform Hours."

TOTAL VEHICLE MILES: The total number of miles traveled by transit vehicles, including miles traveled in scheduled revenue service, deadhead miles, charter miles, and driver-training miles.

TOTAL PASSENGERS: Includes all boarding passengers regardless of whether they paid a fare or transferred from another transit route.

TRANSFER TIME: The time required to effect a transfer between routes or to effect a change of mode.

TRANSIT: A general term used to refer to any type of passenger transportation services and facilities both in urbanized areas and in the outlying or rural areas surrounding urbanized areas. Transit services can include fixed-route bus systems, rail systems, demand-responsive services, specialized services for the elderly and disabled, and any other means of passenger transportation.

TRANSIT-DEPENDENT PERSON: A person for whom the transit system is the principal means of mobility because of a lack of transportation options.

TRANSPORTATION DISABLED: See "Disabled Person."

TRIPPER SERVICE: Local public transit service operated over a limited time period of each weekday and, in some cases, over a special route, to accommodate peak ridership demand or to serve special community needs.

TRIP PURPOSE: The primary reason for making a trip, such as work, shopping, or personal business.

USER-SIDE SUBSIDY: Financial assistance which is provided directly to a transit user, usually in the form of a voucher from a local public body or sponsoring agency, for use in payment of a fare for a trip taken on a public transit system or specialized transit service.

URBANIZED AREA: An urban area officially designated by the U. S. Bureau of the Census as having a concentrated population of at least 50,000 persons and which meets specific population density criteria. Urbanized areas generally consist of a central city and the surrounding, closely settled, contiguous suburbs.

VEHICLE CAPACITY: The maximum number of passengers that a vehicle is designed to accommodate comfortably, including both seated and standing passengers.

WAIT TIME: Time spent at a bus stop waiting for a transit vehicle.