2030 REGIONAL TRANSPORTATION PLAN

FOR NORTHEASTERN ILLINOIS

Adopted by resolution
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List of Acronyms

ADA	Americans with Disabilities Act
BNSF	Burlington Northern Santa Fe
BRC	Belt Railway of Chicago
BRT	Bus Rapid Transit
CATS	Chicago Area Transportation Study
CBD	Central Business District
CMS	Congestion Management System
CNT	Center for Neighborhood Technology
CTA	Chicago Transit Authority
EIS	Environmental Impact Statement
EJ&E	Elgin Joliet & Eastern
FTA	Federal Transit Authority
HOV	High Occupancy Vehicle
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
IHB	Indiana Harbor Belt
ISTHA	Illinois State Toll Highway Authority
ITS	Intelligent Transportation Systems
MPO	Metropolitan Planning Organization
NIPC	Northeastern Illinois Planning Commission
NOx	Nitrogen Oxides
NS	Norfolk Southern
PEF	Pedestrian Environment Factor
RID	Rock Island District
RTA	Regional Transportation Authority
RTP	Regional Transportation Plan
SEDP	Strategic Early Deployment Plan (ITS)
STAR	Suburban Transit Access Route
SWS	Southwest Service
TDM	Transportation Demand Management
TIP	Transportation Improvement Program
TIS	Traveler Information System
TMC	Traffic Management Center
TOD	Transit-Oriented Development
TSM	Transportation System Management
TSP	Traffic Signal Priority
VHT	Vehicle Hours Traveled
VOC	Volatile Organic Compounds
UP	Union Pacific
UP-W	Union Pacific-West

EXECUTIVE SUMMARY

The Chicago region continues to grow and change. To prepare for the future, the Chicago Area Transportation Study (CATS) has prepared this *2030 Regional Transportation Plan (RTP) for Northeastern Illinois*. The 2030 RTP identifies emerging transportation challenges and their possible solutions and provides a guide for long-term transportation investment in the region. The recommendations appearing in the 2030 RTP are financially attainable and help meet the region's air quality goals.

Planning process

The 2030 RTP was developed through a public planning process called *Shared Path 2030* that began in June 2001 and will continue through the RTP's adoption in October 2003. *Shared Path 2030* included transportation policy development, technical evaluation and public outreach focused on evaluating mobility and accessibility, transportation management and operations, commercial goods movement, bicycle and pedestrian travel and the natural environment.

Participation and involvement

Participants in *Shared Path 2030* included elected officials, regional and local planning agencies, civic and advocacy organizations, transportation implementers and providers and residents of the region.

Shared Path 2030 benefited greatly from direct involvement by elected officials. Members of Congress, members of the Illinois General Assembly, as well as elected county and municipal officials provided valued input and leadership.

Shared Path 2030 also benefited from the regional planning efforts undertaken by other agencies as well as private civic and advocacy organizations. The Northeastern Illinois Planning Commission (NIPC), through their *Common Ground* planning process, substantiated many of the broad policy goals that appear in the 2030 RTP. *Chicago Metropolis 2020* raised the challenge of more closely linking regional land use and transportation planning. The Center for Neighborhood Technology (CNT) through their *Connecting Communities* outreach provided effective communication of transportation concerns at a community level. CNT, as a product of their ongoing involvement in many aspects of local and regional transportation planning, raised several concerns related to Shared Path 2030 and the 2030 RTP. These concerns are enumerated by CNT in a document entitled "Center for Neighborhood Technology – Comments on the 2030 Regional Transportation Plan" that accompanies this document.

Shared Path 2030 also benefited from several subregional and strategic transportation plans. Pace's *Vision 2020* Plan, the freight rail industry's *CREATE* plan and several county-level subregional plans were excellent sources of information and provided examples of transportation solutions to be considered regionwide.

Perhaps most of all, *Shared Path 2030* benefited from the direct involvement of many residents of the region. Making long-range planning interesting and relevant to someone who simply wants to "get there" is a challenge. In addition to two sets of traditional community meetings, *Shared Path 2030* included focused outreach among community leaders in minority and low-income neighborhoods, an expanded presence on the World Wide Web and a direct telephone hotline. Production of two widely aired videos

describing the transportation planning process and the RTP recommendations resulted in several hundred residents taking the time to register their opinions regarding the region's transportation future. Each comment received was made available to all *Shared Path 2030* participants.

Regional transportation concerns

The 2030 RTP identifies a number of regional concerns that can be addressed through future transportation investment. Primary among these is maintaining and improving the integrity of our existing transportation system. This includes not only keeping our substantial investment in transportation infrastructure in good repair, but adapts and expands it to address the changing personal mobility, land use and travel patterns that accompany growth.

In addition, the 2030 RTP recognizes the role transportation investment patterns play in the long-term sustainability of the region. Promoting economic and community development, addressing social equity concerns and protecting our natural environment can be achieved through careful and deliberate consideration of each improvement made to our transportation system.

Regional outlook

During the period 1970 to 2000, the region's population grew by 1.1 million people. It is estimated that between 2000 and 2030, the region's population will grow by another 1.8 million persons, significantly faster than in previous decades. The Northeastern Illinois Planning Commission (NIPC) anticipates that this growth will occur both in mature and established areas as well as on the urban fringe. In addition to increased demand for

transportation service, the very nature of the population's transportation needs will also change. While managing the increased strain on already congested portions of the transportation system, future transportation resources must also address public health and safety concerns as well as long-term environmental and community sustainability. The 2030 RTP addresses these issues with a balance of capital recommendations and non-capital strategies.

Plan recommendations

The 2030 RTP includes a set of strategic and capital recommendations intended to both accommodate and manage growth. Between 2004 and 2030, *Shared Path 2030* estimates that $61 Billion will be available for maintaining and improving the region's transportation system. Of that, an estimated $47 Billion will be needed to maintain the existing transportation system in a state of good repair. The 2030 RTP recommends that $5 Billion be allocated for strategic improvement to the region's "shared-use" system comprised primarily of arterial, bus, truck, bicycle and pedestrian facilities and that $9 Billion be allocated to expanding the region's major highway and rail network. Nearly $20 Billion, however, in major capital needs were identified during *Shared Path 2030*. The 2030 RTP provides guidance for identifying, refining and advancing the proposals with the greatest merit.

CHAPTER 1.0: POLICY ENVIRONMENT

This Regional Transportation Plan (RTP) provides public policy direction and guidance for the continued development of a safe, efficient multimodal surface transportation system in northeastern Illinois.

The RTP represents the consensus of the Policy Committee of the Chicago Area Transportation Study (CATS). CATS is designated by the Governor of Illinois, in consultation with local elected officials, as the Metropolitan Planning Organization (MPO) for Northeastern Illinois.[1]

The RTP's policy direction takes a variety of forms: broadly defined regional transportation strategies, specific guidance for transportation project implementers and a set of major capital investments to pursue in the coming decades.

Developing the 2030 RTP was a two-year project in the CATS work program. The planning process, called *Shared Path 2030*, began in June 2001 and was completed in autumn 2003 to comply with federal transportation planning requirements.[2]

1.1 INTENT, SCOPE AND CONSTRAINTS

1.1.1 Intent and Scope

As a region, we engage in comprehensive regional planning because we believe our travel behavior is inextricably linked with urban life and that public planning decisions can alter our living, working and travel choices in complex and compound ways.

Shared Path 2030 begins with the simplest but most comprehensive statement of intent. The region's transportation plan should:

- Promote efficient travel behavior and accommodate it.

- Promote an efficient urban economy and sustain it.

The transportation system is conventionally regarded as a "public good." Most of the region's transportation infrastructure is publicly owned across many government jurisdictions. Privately held and/or operated transportation infrastructure and service is typically franchised or regulated to avoid service duplication and ensure uniform capacity. Nonetheless, nearly all of the decisions regarding the transportation system's use are privately made. Thus, while decisions regarding transportation supply occur in the public domain, their success is dependent to a significant extent on the personal travel choices of individuals and the travel needs of businesses.[3]

Managing the long-term balance of transportation supply and demand in northeastern Illinois is an ongoing activity that occurs in a number of federal, state and local settings. This RTP is bounded by the geographic scale, time frame, transportation supply and travel demand characteristics that we feel are most responsive to public policy at the metropolitan level.

The RTP's recommendations are made at the "regional level" because the effects of local transportation decisions are so intertwined as to require consolidated and coordinated action to achieve change. The RTP provides an opportunity to merge and overlay the

effects of local transportation in a context that clarifies the comprehensive decisions that need to be made and the overall ends they are intended to achieve.

The RTP's time frame is "long-range."[4] Its focus is on making changes that will likely take many years to bring about. Resources and needs to the year 2030 were projected with confidence during the *Shared Path 2030* process, and these projections are used in the RTP to devise policy and investment strategies that are specific enough to help achieve regional goals, but also flexible enough to accommodate changes in our region's socioeconomic landscape.[5] The RTP is updated every three to five years to ensure that the understanding and interpretation of needs, problems, and available solutions is current and correct.

The RTP is principally concerned with "regular daily travel." It accounts for a broad spectrum of socioeconomic activity's effect on the performance of our transportation system. Most specifically, the RTP assesses the demands placed on our transportation system by the workers and businesses that sustain our region's economic health. The plan also, however, assesses the need to preserve and improve the community and environmental attributes which provide the bases for our region's quality of life.

Within this framework, long-term transportation needs are identified and a set of policy goals and objectives are established to guide transportation policy and investment decisions. These result in the following types of recommendations:

- Regional policy strategies expressed in terms of community, environmental, and transportation management and operational objectives that will benefit from a consistent treatment regionwide.

- General implementation guidance for arterial, transit, bicycle, pedestrian and freight facilities, with an emphasis on integrating multimodal features of the transportation system and providing greater flexibility and choice in its use.

- Specific capital investment recommendations for the continued development of the region's major highway and rail infrastructure.[6]

1.1.2 Constraints

There are also limits that constrain pursuit of our goals:

- Federal transportation planning rules require that the RTP demonstrate consistency between proposed transportation investments and projected transportation revenues,[7] and

- Federal air quality regulations require that the RTP and Transportation Improvement Program (TIP), together, demonstrate "conformity" with State air quality goals.[8]

Financial resources

The RTP's recommendations are held in check by reckoning a projection of reasonable future financial resources against our desire to pursue and achieve certain goals.

Shared Path 2030 employed a set of assumptions to estimate revenues available for maintaining and expanding the capital elements of the region's transportation system.

Balancing these projections against the estimated cost of implementing the plan's recommendations has functioned as the principal constraint on pursuing an otherwise very long list of desired capital improvements in the plan.[9]

The principal financial forecasting assumptions[10] employed by *Shared Path 2030* are that:

- State motor fuel taxes and vehicle registration fees are assumed to increase in the future as they have increased historically. This includes a periodic generation of new capital funds as was accomplished in past years with Operation GreenLight[11] and Illinois FIRST.

- Sales tax revenue will increase proportionally to forecasted growth in households.

- Federal legislation authorizing major urban transportation improvements will continue to be enacted, specifically the provisions that guarantee full funding and stable, fixed percentage allocations to the states.

- The existing toll highway system and some new facilities will be financially self-supporting.[12]

For the period 2004-2030, these assumptions result in an estimated $61 Billion being available for capital maintenance and expansion of the transportation system.[13]

Air Quality

Ground level ozone poses a significant health risk to our region. This pollutant is formed primarily by the reaction of volatile organic compounds (VOC) and oxides of nitrogen (NOx) in sunlight.

The Illinois Environmental Protection Agency (IEPA) has established a "mobile-source budget" for these pollutants.[14] The RTP and TIP, together, must demonstrate that motor vehicle emissions do not exceed 127.42 tons per day of VOC and 280.40 tons per day of NOx in the years beyond 2007.

The principal contribution the RTP makes to emission reductions is by promoting transportation improvements that provide greater available choice among travel modes and facilities as well as increased travel speeds and shorter trip distances.

1.2 REGIONAL TRANSPORTATION CHALLENGES AND CONCERNS

Regional transportation planning has historically focused on providing guidance for implementing high-capacity, high-speed, long-distance transportation infrastructure. Similarly, the traditional view of regional transportation policy assumed that local transportation improvements would logically extend from this regional system. In recent years, we have come to realize that success in meeting regional objectives is significantly dependent on coordinated pursuit of development strategies at all levels of government. The land use, trip-making and traffic management practices that establish local transportation conditions also define the premise for large-scale transportation improvements. This increased interplay of transportation decisions has resulted in more comprehensive transportation planning discussions. These, in turn, have broadened *Shared Path 2030's* definition of "transportation need," as well as the methods used to assess them and the range of available solutions.

Shared Path 2030 employed a broad-based approach to determining the transportation needs upon which to predicate the RTP's official set of "goals." Basic urban planning

themes called "Concept Scenarios" were composed from a combination of technical evaluation, policy research and participant dialogue.[15] These investigations provided a base of information upon which to more succinctly state a perceived problem or concern in regional terms. Thus, many concept scenarios were introduced as smaller-scale stand-alone planning issues. Examining them early during *Shared Path 2030* provided the opportunity to elevate their regional credibility and provided a context within which meaningful regional transportation goals could be stated. The Concept Scenario investigations included these topics:

- Mobility and accessibility
- Commercial goods movement
- Land use and transportation relationships
- Community planning
- Social equity
- Natural environment
- Transportation management and operations
- Public health and safety

The following transportation planning "problem statements" emerged following about 12 months of these investigations. They constitute the bounds on evaluating transportation goals and objectives appearing in the 2030 RTP.

1.2.1 Mobility and Accessibility

Regional transportation policies, systems and projects affect mobility and accessibility for the region's residents and travelers.

For purposes of *Shared Path 2030*, the following definitions were used.

- **Mobility**: Socioeconomic and demographic attributes of persons that define the ease with which they can use the transportation system. For example, factors such as income, age and physical capability define a person's mobility.

- **Accessibility**: Transportation system attributes that define the ease with which persons can link their activities. For example, factors such as transit frequency and highway congestion define the transportation system's accessibility.

Shared Path 2030 provided an opportunity to develop and refine a set of transportation mobility and accessibility measures used to evaluate the effects of different transportation strategies.[16] A set of these mobility and accessibility measures were incorporated into the quantitative evaluation scheme developed for studying future regional scenarios and evaluating the RTP recommendations.

1.2.2 Commercial Goods Movement

Efficient movement of goods requires strategic improvements to the existing transportation system as well as more thorough incorporation into the comprehensive transportation planning process.

Many regional planning concerns relate, at least indirectly, to a concern over commercial goods and their role in the health of the regional economy. They indicate that we should consider goods movement needs as part of general transportation system development in order to sustain our regional health. This is of particular concern in northeastern Illinois in terms of preserving and promoting our national and international freight prominence.[17]

A set of comprehensive freight system proposals[18] was made during *Shared Path 2030* for improvement of commercial goods movement in the region. Some of the proposals provided broad policy objectives to be applied regionwide; others reflect specific guidance for making strategic improvements to the region's truck and freight rail systems.

In addition, an ongoing theme throughout these discussions was that greater planning coordination between and among private freight operators and public agencies is necessary to sustain the region's preeminence as a global freight center.

1.2.3 Land Use and Transportation Relationships

The transportation system can be used to promote efficient land use.

Our assessment of the transportation system should support land use policies in the region. NIPC is now engaged in a comprehensive planning process, called *Common Ground*. This is intended to result in a regionwide land use plan that will eventually provide valuable guidance in evaluating these transportation strategies and proposals. The goal-setting phase of *Common Ground* has been completed and contributed to *Shared Path 2030* at several junctures.

NIPC also continues its function of preparing small area forecasts of households and employment under various regional scenarios. This includes incorporating the land use plans of local communities and the counties, as well as quantifying the socioeconomic implications of RTP policies and NIPC regional growth strategies. The RTP is intended to support the land use forecasts prepared by NIPC.

1.2.4 Community Planning

Regional transportation policy affects the success of community planning efforts. Coordinated community planning can support achieving regional goals.

Defining and improving the links between community planning and regional planning continued throughout *Shared Path 2030*. Transportation planning occurs on many different levels and for many different reasons. The resulting transportation projects range in size and impact from large to small, regional to local. It is not sufficient to merely recognize that all transportation projects have a continuum of regional to local implications.

Some parity of concern for smaller-scale transportation solutions that, in aggregate, provide regional benefits has a place in regional planning. It has always been easier to visualize the potential local impacts of a major regional facility than to identify the regional implications of collective smaller-scale investments.

Shared Path 2030 recognized that some local issues are so widespread that, once discerned, they can logically be elevated to regional consideration. At the regional level, we have the ability to consider solutions to widespread local problems by creative

interpretation of regional "systems" and "strategies" and by giving thoughtful consideration to which transportation policies and proposals have "regional significance."

A regional planning approach that respects community context and environmental assets in its recommendations can provide the means to resolve potential conflicts between regional imperatives and community concerns.[19]

1.2.5 Social Equity

Communities that are traditionally under-served and under-represented need special consideration in regional transportation decisions.

Environmental justice addresses questions of distributive fairness in public decisions. Transportation decisions, inasmuch as they affect allocation of public goods, often raise questions relating to the "equity" of their benefits and the burdens or "externalities" they may produce.[20] The variability in burdens and benefits resulting from transportation decisions are often obvious, but their full impact is difficult to account for completely.

General guidelines[21] for evaluating environmental justice in regional transportation planning suggest the inclusion of both a regional profile identifying the locations of minority and/or low income populations as well as an analytical process for assessing regional benefits and burdens for different socioeconomic groups.

In addition to assessing these regional profiles, additional strategic attention to transportation equity for seniors and people with disabilities affords independence, freedom of movement, and self-determination.

Directing our attention to the special mobility needs of these communities allows disadvantaged persons to assert a level of dignity in an otherwise difficult part of urban living.

Shared Path 2030 included a stratification by race/ethnicity and income of the mobility/accessibility measures used in plan evaluation and provides support for developing regional strategies to address the needs of seniors and persons with disabilities.

1.2.6 Natural Environment

Regional transportation decisions should promote quality of the natural environment.

Transportation greatly affects the quality of our natural resources and environment. In both urban and rural areas of northeastern Illinois, transportation projects can improve access to natural areas, but can also degrade them with congestion and pollution.

Planning, design and construction of major transportation projects is subject to rigorous environmental regulation. But public and private organizations can also, through their planning efforts, promote preservation of high-quality natural areas in the region that remain unprotected by legislation or regulation.[22]

Shared Path 2030, in coordination with NIPC's *Common Ground* effort, developed a set of regional strategies consistent with adopted regional policies on environmental preservation and enhancement.

NIPC, as a partner in *Shared Path 2030,* led in preparing a set of natural environment measures that were used in evaluating future regional scenarios. This also resulted in a graphical base of important environmental resources being included on the RTP map.

1.2.7 Transportation Management and Operations

Technological advances offer great potential to improve traveler information and facility operation. Regional transportation policy should consider the opportunities presented both by capital and long-term management and operations planning.

Introducing advanced management and operations techniques can greatly enhance the performance of our transportation system. *Shared Path 2030* seeks to expand both the variety and volume of technology innovations planned for the region.

Traditionally management and operations decisions were viewed as too short-term for serious discussion in a long-range plan. Many of the transportation providers that participate in long-range planning, however, are thoroughly invested internally to efficient management of their own operations. The magnitude of organizational arrangements and institutions that are required to manage our current system demonstrates the need to consider the long-term management implications of our transportation system at the regional level.

An important reason for elevating management and operations in regional planning is the recognition that systemic improvements may arise as much from the consistent application of many small-scale strategies as from the results of some major capital projects.

Emphasizing management and operations during long-range transportation planning serves as a link between the broad regional objectives supporting strong and equitable regional economic development and those addressing local context-sensitive solutions.

Shared Path 2030 developed a set of regional management and operations strategies to support both maintaining and improving the performance of the existing transportation system as well as guiding the performance expectations of its capital recommendations.

1.2.8 Public Health and Safety

Regional transportation policy should address public health and safety in ways beyond the traditional acknowledgement of vehicular safety and air quality concerns.

The RTP has traditionally deferred safety concerns to short-term strategic planning. Promotion of transportation safety has been a paramount consideration of federal and state transportation regulation and enforcement for many years. This leaves little discretion to RTP participants in tailoring safety considerations to suit local interests.

Similarly, aside from the implications of capital construction on water quality and increased air pollution that might arise from changes in travel behavior, there has historically been little attention paid to the role transportation planning can play in promoting public health.

Shared Path 2030 proceeded during a resurgence of interest in the ways that transportation systems are designed, managed and operated and their contribution toward the broader definition of public health and safety. This includes not only new approaches to long-range emphases on vehicular safety, but also an expanded emphasis on the safety

of bicyclists and pedestrians. The role transportation policy plays in promoting a healthy and active lifestyle was also investigated.

1.3 GOALS FOR FUTURE TRANSPORTATION SYSTEM DEVELOPMENT

The RTP's long-term goal statements discern the general intent behind all subsequent elements of the plan. Because our work is comprehensive,[23] the goals have considerable overlap and reflect a broad spectrum of preferences.[24] In addition, because we are establishing policy direction for government agencies, the goals speak to institutional influences on society.[25] In order to allow the RTP's goals to remain paramount while considering the remainder of the plan, *Shared Path 2030* reduced them to three overarching statements:

- Maintain the integrity of the existing transportation system.
- Improve transportation system performance.
- Employ transportation to sustain the region's vision and values.

Goals are supported by specific "objectives" intended to clarify their intent.[26] There is inevitably some degree of overlap and potential conflict when elaborating how the objectives should be pursued. Acknowledging these overlaps and working to resolve them became important as *Shared Path 2030* refined proposed transportation improvements to enjoy broader support.[27] Resolution of these objectives continues during all phases of project development and implementation.

The RTP objectives are organized in terms of the opportunities they provide to introduce the challenges and concerns revealed in *Shared Path 2030* into future transportation policy and implementation work. To clarify these opportunities, the plan's objectives are stated such that they identify the development stage at which they become important.

- **Develop a transportation system that**… (carried out at the broadest policy levels, such as legislation, taxation, budgeting and regulation).

- **Promote transportation proposals that**… (carried out when establishing priorities for capital programs)

- **Encourage project implementation that**… (carried out during project design, environmental review, community plan development).

1.3.1 Goal: Maintain the Integrity of the Existing Transportation System

Northeastern Illinois' surface transportation infrastructure is the product of more than a century of public investment decisions and actions. A long history of societal ideals and visions has produced a stable and functional regional transportation system. Both because of its history and functionality, our transportation system is a strong part of our regional identity and should be respected as such. Diverse elements from multi-lane highways to sidewalks, from airports to rail passenger depots, are assets that we must protect and use effectively. In this spirit, the RTP places the highest priority on maintaining existing transportation system integrity by giving careful consideration to reconstruction and replacement decisions. This includes maximizing the performance of

existing and new transportation infrastructure and service efficiency through effective transportation management and operations practice.

Specific objectives include the opportunity to reconstruct and replace facilities in a way that accounts for new travel needs and preferences. In some cases this may include capacity additions that accommodate forecast demand increases. Other strategies will include capital, management and operations techniques that improve the availability of highway as well as transit choices.

1.3.1.1 Maintenance, reconstruction and replacement objectives

Develop a transportation system that:

- maximizes the performance of existing transportation facilities.

Promote transportation proposals that:

- improve the performance of existing transportation facilities.
- preserve the level of service offered by the existing transportation system.

Encourage project implementation that:

- improves connections between existing transportation facilities.
- improves accessibility to surrounding land uses.
- mitigates conflicts between rail and highway systems.

1.3.1.2 Transportation management and operations objectives

Develop a transportation system that:

- improves transportation system information available to travelers.
- facilitates management and operations communications abilities.

Promote transportation proposals that:

- provide improved transportation management capabilities.
- maximize performance benefits through intensive management.
- improve coordination between and among different modes.

Encourage project implementation that:

- provides for intensive facility management and operations capabilities.
- provides for coordinated management with other existing and planned transportation facilities.
- improves ability to manage freight.

1.3.2 Goal: Improve Transportation System Performance

While stable and functional, it is clear that our current transportation system presents immediate challenges for its users and operators. Along with our concern for maintaining the integrity of the existing transportation system, we seek ways to improve the system's future performance.

1.3.2.1 Transportation system efficiency objectives

Develop a transportation system that:

- balances allocation of financial resources among transportation modes and improvement strategies.
- addresses transportation solutions across a variety of travel needs.

Promote transportation proposals that:

- reduce highway congestion.
- increase the availability of public transit.
- encourage walking and bicycling for transportation.

Encourage project implementation that:

- enhances the facility's multimodal potential.
- maximizes the operational effectiveness of capital improvements.

1.3.2.2 Transportation and land use interaction objectives

Develop a transportation system that:

- promotes a local balance of jobs and housing.
- facilitates efficient management of land resources.
- supports the goals and objectives of regional land use policies.

Promote transportation proposals that:

- are coordinated with regional and local development plans.

Encourage project implementation that:

- supports industrial/commercial development with appropriate multimodal freight access.
- facilitates preservation of historical, cultural and agricultural resources.
- provides efficient access to existing and anticipated land uses.
- supports transit-oriented development.

1.3.2.3 Transportation mobility and accessibility objectives

Develop a transportation system that:

- offers travelers a choice of transportation modes.
- fosters affordable travel.
- fosters short travel times.

Promote transportation proposals that:

- increase access to job opportunities.
- provide efficient modal alternatives for short trips.
- reduce traffic congestion.

Encourage project implementation that:

- coordinates transit access to job locations.
- includes multimodal travel options.

1.3.2.4 Commercial goods movement objectives

Develop a transportation system that:

- facilitates efficient movement of commercial goods.
- enhances the region's eminence in the national and global freight economy.
- stimulates commercial and industrial development that promotes local balance of housing and jobs.

Promote transportation proposals that:

- support commercial land use in close proximity to existing major highway and rail facilities.
- improve strategic freight connections.
- improve accessibility to freight terminals.
- maintain and promote the value of existing public and private investments in freight transportation.

Encourage project implementation that:

- promotes safety at interfaces of the rail and highway system.
- mitigates the negative effects of freight facilities on neighboring residential communities.
- minimizes freight contributions to traffic congestion, air pollution, infrastructure maintenance and safety problems.
- fosters efficient freight connections among rail, truck and port systems.
- facilitates safe and efficient truck operation.

1.3.3 Goal: Employ Transportation to Sustain the Region's Vision and Values

We anticipate continued regional growth and change. New investment should shape the transportation system in support of an evolving vision for the region's future economic and social development. We must respect the natural ecology of the region by conserving our land, air and water resources. We are concerned about transportation's role in the long-term sustainability of the natural environment as it relates to ecological concerns ranging from global climate change to natural beauty. We should design local community transportation systems to enhance the quality of life of residents.

One important way to highlight these concerns is to carefully consider the relationship between transportation and regional growth. This can include large-scale regional strategies that promote growth potential at existing centers of development with an

emphasis on those areas that are in need of reinvestment. While local communities engage in land use planning and zoning control to promote economic and community development, the historical footprints of the real estate market may better characterize long-term regional development patterns. The RTP offers a lever to resolve conflicts between market-driven land use pressures and preference-driven community goals.

1.3.3.1 Transportation and natural environment objectives

Develop a transportation system that:

- helps improve air and water quality.
- promotes and protects biodiversity.
- reduces air pollution from mobile sources.

Promote transportation proposals that:

- encourage reduced energy consumption.
- improve air quality in areas with high point-source emissions.[28]
- include elements that mitigate environmental problems.
- provide opportunities to improve environmental quality.

Encourage project implementation that:

- employs context-sensitive solutions with regard to natural environmental features.
- protects natural groundwater recharge.

- promotes effective stormwater management.
- enhances greenways, trails and open space.
- includes natural landscaping.
- helps protect threatened and endangered species.
- promotes wetland protection.
- is consistent with official environmental protection and preservation plans.

1.3.3.2 Transportation and economic development objectives

Develop a transportation system that:

- enhances the region's business environment.
- promotes the region's position as a national transportation hub.
- orients the benefits of commercial and industrial strength toward the long-term benefit of the region.

Promote transportation proposals that:

- provide multimodal ground access to the region's major airports and rail terminals.
- improve multimodal service to the Chicago Central Business District (CBD) and other employment concentrations.

- provide multimodal access to industrial and commercial areas.

- support the strategic needs of commercial goods shippers and carriers.

Encourage project implementation that:

- accommodates forecast demand.

- provides for improved level of transportation service for workers and businesses.

1.3.3.3 Transportation and social equity objectives

Develop a transportation system that:

- provides travel benefits to persons of all ages, abilities, incomes, races and/or ethnicity.

- avoids placing disproportionate burdens on minority or low-income populations.

- reduces dependence on personal transportation assets.[29]

Promote transportation projects that:

- provide improved transportation choices to economically disadvantaged persons.

- stimulate balanced and sustainable development in communities with concentrations of disadvantaged residents.

- support programs providing financial incentives to low-income persons residing in communities that provide a wider variety of transportation choices.

Encourage project implementation that:

- balances project burdens among all who benefit.

- provides early, continuous and extended outreach effort appropriate to communicating transportation improvement opportunities to low-income, minority, senior and disabled communities.

1.3.3.4 Transportation and community development objectives

Develop a transportation system that:

- promotes balanced land use within and among local communities.

- promotes local community quality of life.

Encourage project implementation that:

- is consistent with community development goals.

- maximizes the local value of regional transportation improvements to support community residential, commercial and industrial development.

- is consistent with official historic, cultural or agricultural preservation plans.

1.3.3.5 Transportation and public health and safety objectives

Develop a transportation system that:

- provides safe and secure movement for all travelers.

- promotes established public health objectives.

- promotes healthy and active traveling habits.

Promote transportation projects that:

- enhance the safe operation of transportation facilities and services.

Encourage project implementation that:

- employs context-sensitive solutions with regard to promoting local community quality.

- maximizes the safety and security of all travelers.

- minimizes project-related air, water and noise pollution.

- maximizes the safety and security of adjacent populations.

- provides opportunities to walk and bicycle for transportation.

CHAPTER 2.0: REGIONAL ASSESSMENT

Shared Path 2030 included a technical evaluation of the transportation system and its performance under a set of "future regional scenarios."

2.1 DEFINING THE TRANSPORTATION SYSTEM

Shared Path 2030 defined the transportation system in terms of the intent, scope and constraints of the RTP outlined above. This established the bounds for assessing the interaction and balance of transportation functions offered by a variety of physical transportation facilities and management/operation strategies.[30]

Shared Path 2030 considered a wide variety of regional transportation strategies, system management and operation options, and physical changes to existing surface transportation facilities. These were solicited from participants and the public. More than 300 policy and infrastructure proposals oriented toward achieving the plan's goals and objectives were received. Proposals were initially cataloged based on whether they would involve physical changes to the transportation system. Proposals involving community, environmental, and management and operations strategies were incorporated to complement a set of "future regional scenarios" developed from the transportation system proposals. Strengthening the relationship between these proposals and the RTP's goals and objectives was the subject of public outreach workshops held regionwide.[31]

Many of the proposals called for large capital projects that would affect the performance of the region's entire existing major highway and rail system. Even though large-scale capital construction projects are typically associated with a particular geographic

location, they are anticipated to provide new service and accessibility patterns to large numbers of travelers regionwide. In addition, major capital proposals usually employed some sort of "access control" (e.g., freeway or passenger rail design) as a means to move larger numbers of travelers longer distances.

Major highways are most familiar in terms of permitting unrestricted auto use by reducing or eliminating conflicts and hazards associated with access/egress to adjacent land uses, slower traffic, and at-grade intersections. Design options for access-controlled major highways also permit priority treatment for carpool, bus, tolls and trucks. Right-of-way treatments may also provide separate bicycle and pedestrian accommodations. Proposals were evaluated in which existing major highways were expanded or newly constructed.

Rail facilities are most familiar in terms of permitting large volumes of people and goods to travel using comparatively fewer vehicles than a major highway.[32] Passenger rail service requires constant and thorough management of track and signal systems, rolling stock and support facilities. In addition, rail infrastructure capacity often must be managed and operated to serve both passenger and freight movements. Proposals were evaluated in which existing major passenger rail (including a new mode called "Bus Rapid Transit") facilities were upgraded, expanded or newly constructed. Proposals to improve the passenger level of service by reconfiguring rail yards and stations as well as improving rail access and operational performance were also evaluated.[33]

Also proposed were sets of smaller-scale improvements to the region's arterial, bus, bicycle, pedestrian and freight systems that would demonstrate a regional benefit if

consistently applied over a large area. Most of the smaller-scale proposals occur on "shared-use facilities" (i.e., arterial streets that serve autos, buses, bicycles, pedestrians and trucks) that inevitably sacrifice some travel time performance for increased accessibility and flexibility in use.

Arterial streets compose most of the region's surface transportation infrastructure and pose special design challenges because they serve both motorized and non-motorized traffic as well as provide direct access to adjacent land uses. Typically, design attention is paid to intersections, structures (bridges and grade-separations) and vehicle traffic control. Specific design options also are available for carpool, bus (including in-way Bus Rapid Transit), trucks, bicycles and pedestrians. Proposals were evaluated for introducing new express and local bus service, maintaining, redesigning and/or expanding arterial facilities, introducing dedicated and shared bicycle/pedestrian facilities and introducing grade separations and bypasses to reduce conflicts and improve the context between and among highway, rail, bicycle and pedestrian facilities.

Also evaluated were proposals for improving connections and coordination among these major projects, and arterial and local community strategies. Proposals included improved or new highway interchanges, transit stations, carpool and transit parking and intermodal facilities for transferring freight between and among modes.

2.2 FUTURE REGIONAL SCENARIOS

Shared Path 2030 developed the RTP's policy guidance in the form of goals and objectives simultaneous to the development of transportation project, system and strategy proposals. Interweaving these discussions (often involving the same participants) had the

benefit of making it clear that no single planning goal or transportation proposal could escape the influence of another. This also made clear the need to measure and evaluate the implications of both planning policy and transportation improvements under a set of unified regional alternatives, combining policy goals and transportation proposals in a way that the evaluation measures could reflect the success of achieving general thematic ends.

2.2.1 Socioeconomic Inputs

Each of *Shared Path 2030's* thematic alternatives is based on an initial 2030 forecast of the geographic distribution of households and employment under a "transportation no-build" scenario.[34]

This no-build scenario was used to evaluate future regional scenarios in advance of NIPC's *Common Ground* recommendations for a preferred land use scenario to guide future regional transportation planning work. Table 1 on the following page summarizes this initial no-build scenario by geographic area.

In addition, *Shared Path 2030* assessed social equity in transportation in terms of the mobility and accessibility benefits accruing to concentrations of low-income and minority residents. This was accomplished through an evaluation of transportation system use as well as by stratifying the benefits that accrue to travelers. *Shared Path 2030* reports benefits to travelers based on where they reside, even though in many cases they may have received the benefit from a transportation improvement at another location. It is important to recognize that there may be some distance between where a transportation improvement is made and the "home-base" of the traveler that receives its benefit.

Table 1: Socioeconomic Inputs (NIPC no-build, 1/03)

District	2000 Households	2030 Households	Numeric Change	% Change
Chicago CBD	22,781	28,274	5,493	24.11%
Chicago Balance	1,039,636	1,090,311	50,675	4.87%
Cook Balance	907,057	1,016,478	109,421	12.06%
Cook Total	1,969,474	2,135,063	165,589	8.41%
DuPage	325,596	367,146	41,550	12.76%
Kane (w/ Kendall portion)	146,820	259,171	112,351	76.52%
Lake	216,183	316,279	100,096	46.30%
McHenry	89,399	144,947	55,548	62.13%
Will	167,537	446,600	279,063	166.57%
Region	2,915,009	3,669,206	754,197	25.87%

District	2000 Employment	2030 Employment	Numeric Change	% Change
Chicago CBD	553,233	612,610	59,377	10.73%
Chicago Balance	794,980	891,935	96,955	12.20%
Cook (w/o Chicago)	1,481,136	1,764,495	283,359	19.13%
Cook Total	2,829,349	3,269,040	439,691	15.54%
DuPage	651,378	791,691	140,313	21.54%
Kane (w/ Kendall portion)	224,409	349,902	125,493	55.92%
Lake	352,191	483,136	130,945	37.18%
McHenry	105,147	204,480	99,333	94.47%
Will	164,859	456,828	291,969	177.10%
Region	4,327,333	5,555,077	1,227,744	28.37%

2.2.1.1 Low-income households

According to the 2000 census, the mean income for households in the region is about $69,000 per year. Approximately 33% of the households in the region have annual incomes less than one-half the regional mean, or about $35,000.

Table 2: Low-Income Households (data based on 2000 census)

County	2000 Households	2000 Households <$35,000	Percentage of Households <$35,000
Cook	1,974,408	746,427	38%
DuPage	326,011	64,536	20%
Kane	133,733	33,667	25%
Lake	216,484	48,389	22%
McHenry	89,377	18,441	21%
Will	167,602	38,469	23%
Region	2,907,615	949,929	33%

Shared Path 2030 stratified concentrations of these households by identifying zones (usually about ¼ square mile) in which the average of median household incomes is less than 50% of the regional mean. The result is a count of all households in zones where the average median income for the zone is less than one-half the regional mean. These two statistics are presented to illustrate the distinction between the regional distribution of lower income households "at-large" and the geographic concentration of lower-income households in a particular area. Because regional transportation improvements can potentially provide benefits to all households in a particular geographic area, social equity objectives are concerned with identifying geographic concentrations of a target income population.

Table 3: Concentrations of Low-Income Households

District	2000 Total Households	2000 Households in zones averaging <$35,000	Percent of total households
Chicago CBD	26,605	1,099	4.13%
Chicago Balance	1,040,091	104,993	10.09%
Cook Balance	902,777	7,398	0.82%
DuPage	325,596	2,729	0.84%
Kane (w/ Kendall part)	146,820	5,224	3.56%
Lake	216,182	5,979	2.77%
McHenry	89,399	2,363	2.64%
Will	167,537	2,363	1.41%
Region	2,915,007	132,148	4.53%

2.2.1.2 Minority population

Shared Path 2030 defined "minority population" as the total number of persons in a zone who, in the 2000 Census, reported themselves as non-white or Hispanic. Approximately 43% of the region's population fall in this category (see Table 4).

Table 4: Minority Population

District	2000 Population[35]	2000 Minority Population	Percentage
Chicago CBD	42,684	14,186	33.23%
Chicago Balance	2,866,582	1,979,215	69.04%
Cook Balance	2,459,337	824,329	33.52%
Cook Total	5,368,603	2,817,730	52.49%
DuPage	904,170	192,217	21.26%
Kane (w/ Kendall part)	441,504	134,406	30.44%
Lake	644,330	171,410	26.60%
McHenry	260,080	27,194	10.46%
Will	502,278	113,855	22.67%
Region	8,120,965	3,456,812	42.57%

Shared Path 2030 stratified concentrations of minority population by identifying zones (usually about ¼ square mile) in which the number of minority persons was approximately twice the regional mean. The result is a count of all households in zones where the minority population is greater than twice the regional mean. Like the income distributions, this distinction between the regional distribution of minority population and the geographic distribution of households in areas with predominantly minority populations is important for evaluating travel behavior.[36]

Table 5: Concentrations of Minority Population

District	2000 Households	2000 Households in zones w/ greater than twice regional mean of minority population	Percentage
Chicago CBD	26,605	319	1.20%
Chicago Balance	1,040,091	406,319	39.07%
Cook Balance	902,777	77,071	8.54%
Cook Total	1,969,473	483,709	24.56%
DuPage	325,596	725	0.22%
Kane (w/ Kendall portion)	146,820	4,777	3.25%
Lake	216,182	9,753	4.51%
McHenry	89,399	38	0.04%
Will	167,537	8,592	5.13%
Totals	2,915,007	507,594	17.41%

2.2.2 Transportation System Commitments

The region has invested heavily in urban transportation infrastructure for more than 100 years. Most transportation facilities are constructed to last 20-50 years. Even with an ongoing commitment to maintenance, many components of our transportation system have already been rebuilt, some more than twice over. The inevitable need to reconstruct a transportation facility provides opportunities to consider an existing transportation facility's place in meeting changing mobility needs.

Shared Path 2030 recognized the opportunities presented by the maintenance, rehabilitation and preservation needs of our existing transportation system. Capital maintenance projects protect the safety and efficiency of the system and extend the useful life of existing facilities. But eventually, capital maintenance involves major reconstruction, which in turn provides an opportunity to upgrade or reconfigure a facility to better serve changing needs. This idea is central to achieving the RTP's goal of maintaining the integrity of the existing system.

The cost of fully renovating the entire transportation "like new" would far exceed projected funding. The RTP's goal of maintaining the integrity of the existing transportation system also recognizes the discretion necessary to keep the existing system in a state of good repair while addressing the changing mobility needs of the region with new facilities.

There is currently a set of transportation improvements for which there is sufficient progress toward implementation to include in each alternative future regional scenario. These "commitments" are included in all evaluations, the criteria being:

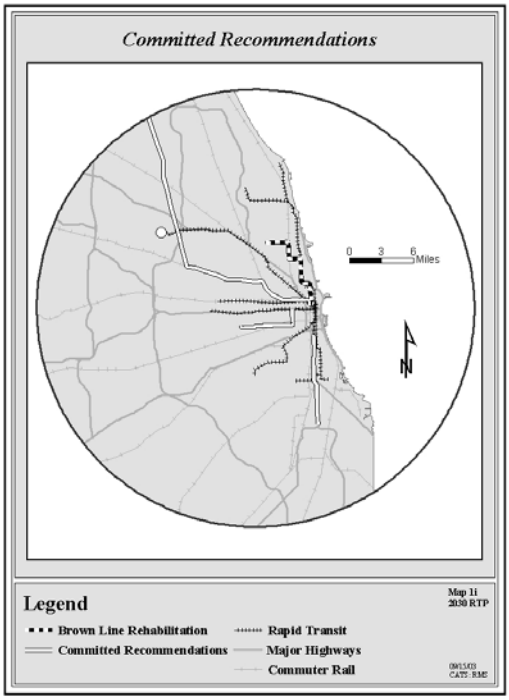
- Highway projects with construction approval in the State's current five-year transportation program.

- Rail transit projects with FTA New Start approval.[37]

There are currently eight major project commitments, each of which is described on the following pages.

Brown Line Rehabilitation[38]

Figure 1: Brown Line Rehabilitation



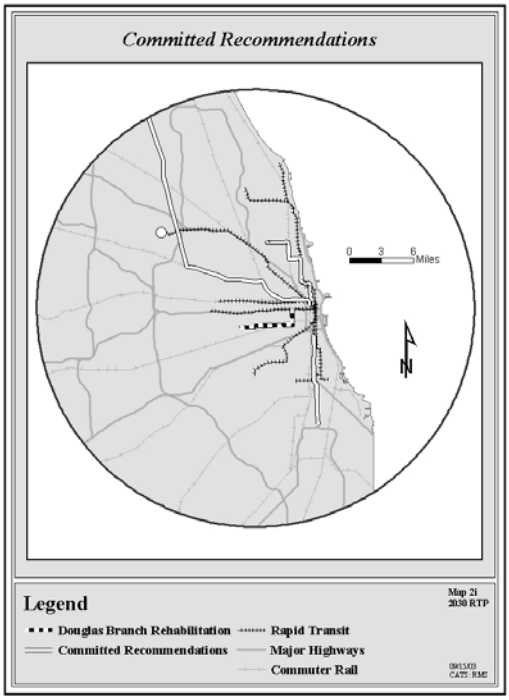
The Chicago Transit Authority (CTA) Brown Line elevated structure is being rehabilitated to provide faster service and allow for longer trains.

This project will increase transit capacity by 33% to meet increasing demand in a rapidly growing residential and commercial corridor. Economic benefits accrue by strengthening already lively transit-oriented commercial areas around stations and increasing residential property values around stations and along the line. Environmental benefits are expected from the auto-to-transit mode shift.

This is a committed improvement for which funding has been secured and is estimated to be complete by 2008.

Blue Line Douglas Branch Rehabilitation (includes Phase I of Circle Line)

Figure 2: Blue Line Douglas Branch Rehabilitation



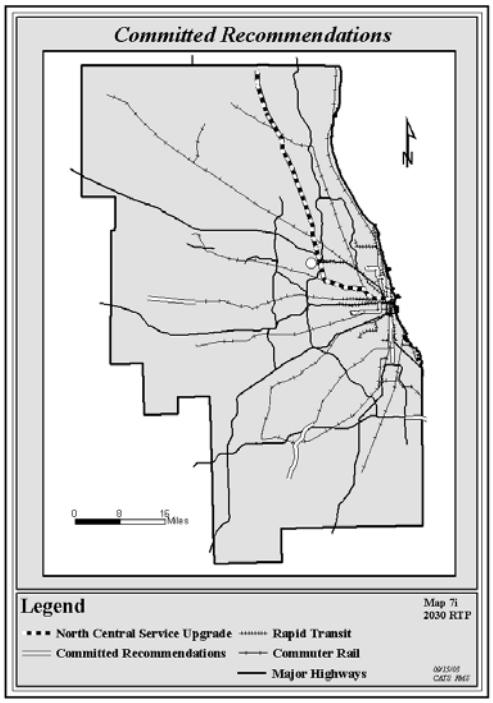
The CTA Blue Line Douglas Branch elevated structure is being rehabilitated and the "Paulina Connector" being restored to provide faster service and more flexible train routing options.[39]

This project will rehabilitate a rail line dating from the early part of the last century. Eight stations will be reconstructed and five miles of track replaced. This line serves the fast-growing Pilsen and Little Village neighborhoods in Chicago and links these working-class neighborhoods with several job-rich areas. Travel time to the Loop will improve by up to 20%. Environmental benefits are expected from the auto-to-transit mode shift.

This is a committed improvement for which funding has been secured and is estimated to be complete by 2005.

North Central Service Upgrade (Phase I)

Figure 3: North Central Service Upgrade

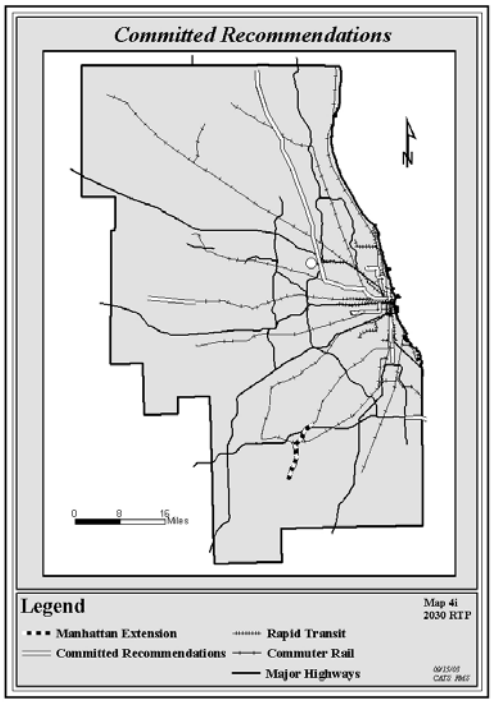


This is the first phase of proposed upgrades to Metra's North Central commuter rail service. Phase I of the North Central Service Improvements include double-tracking much of the line, new stations, additional parking, and improved management and operations via Milwaukee District West Line to Union Station. Freight interference is expected to decrease, and service reliability will increase.

This is a committed improvement for which funding has been secured and is estimated to be complete by 2007.

Southwest Service Manhattan Extension

Figure 4: Southwest Service Manhattan Extension

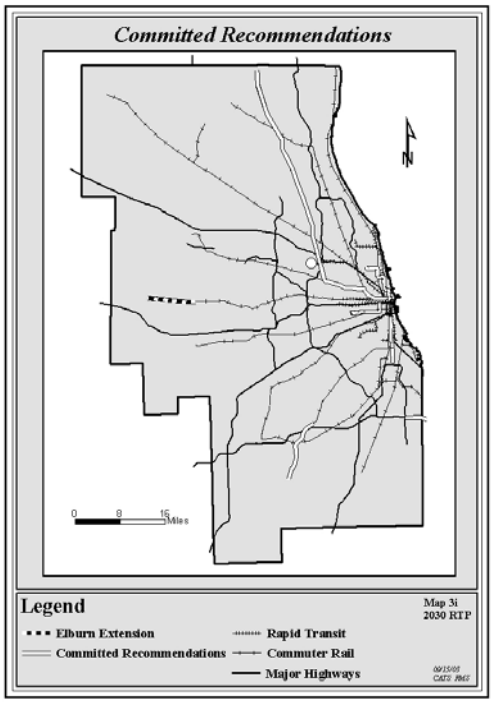


This is the first phase of proposed upgrades and extension to Metra's Southwest Service commuter rail service. Phase I includes an extension of service to Manhattan, additional stations, more trains, double-tracking additional sections of the line and more commuter parking.

This is a committed improvement for which funding has been secured and is estimated to be complete by 2007.

Union Pacific West Elburn Extension

Figure 5: Union Pacific West Elburn Extension

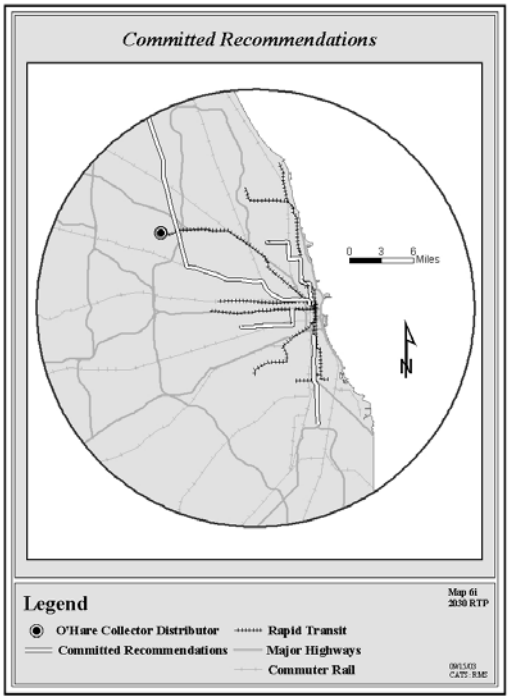


This is the first phase of proposed upgrades and an extension to Metra's Union Pacific (UP)-West (W) commuter rail service. In order to provide additional passenger access to new development on the region's edge, an extension of UP-W from the current terminus in Geneva (Kane County) to a new terminal at Elburn is already underway. The new yard in Elburn will eliminate congestion, freight conflicts, and dead-heading between West Chicago and Geneva. Freight interference will decrease, and service reliability and flexibility will increase.

This is a committed improvement for which funding has been secured and is estimated to be completed by 2007.

O'Hare Collector/Distributor Road

Figure 6: O'Hare Collector/Distributor Road

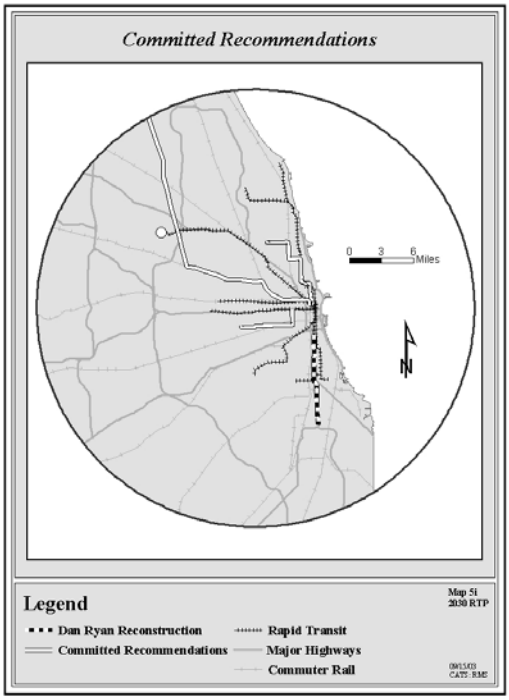


This project consists primarily of redesigning and reconfiguring arterial access to I-190 and O'Hare International Airport to improve mobility and reduce congestion and collisions. The improvements will include collector and distributor roads that will facilitate access to the many job and activity centers on the airport site.

This is a committed project for which substantial funding has been secured and is estimated to be complete by 2012.

I-90/94 Reconstruction from 15th Street to I-57

Figure 7: I-90/94 Reconstruction



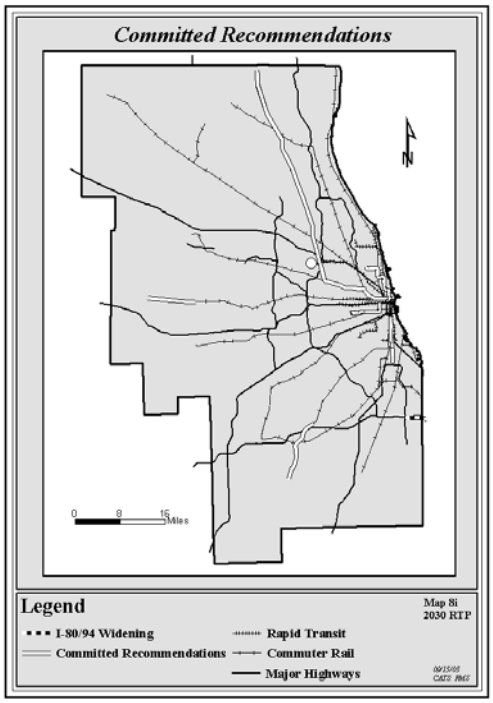
This project consists primarily of reconstructing the existing roadway and reconfiguring access to improve safety. Modified access and auxiliary lanes will be included in the project to reduce weaving maneuvers. Through-access on I-90 to the Chicago Skyway Toll Bridge will be enhanced with a flyover to the express lanes north of 63rd Street.

This is a committed project for which funding has been secured and is estimated to be complete by 2007.

This project should be coordinated with a CTA maintenance project on the I-95/Dan Ryan Red Line branch.

I-80/94 from I-294 to US41

Figure 8: I-80/94 Improvements



I-80/I-94 provides a major link between northern Illinois and the northern tier of the United States. It is a critical trucking route and serves large numbers of external trips. The RTP proposes to provide additional capacity on I-80/94 from I-294 to US 41, plus a major new collector/ distributor system servicing the I-294/IL 394 interchange. Improved geometry and realignments will substantially improve the operations and safety of the roadway.

This is a committed project, having received full funding from state and federal sources. The project is scheduled for completion by 2007.

Planning for this project has been closely coordinated with the Northwest Indiana Regional Planning Commission which endorses plans to continue the additional lanes to I-65. The project will also be complemented by additional lanes on I-294 from IL394 to US12/20 95th Street.

The project is located in the Thorn Creek area and Little Calumet River in south Cook County.

2.2.3 Alternative Future Transportation Systems

Alternative scenarios for future transportation system improvement were comprised of proposed transportation solutions and evaluated in terms of a set of measures established by *Shared Path 2030* to reflect mobility, accessibility and transportation system performance.

Shared Path 2030 examined alternative future transportation scenarios, not so much in order to "pick" an exclusive approach, but to "learn" by comparing the resulting evaluation measures. It was anticipated that the RTP would adopt principles from each of these themes and that evaluating strongly contrasting "thematic" alternatives would help in developing plan recommendations.

With ongoing transportation system maintenance needs in mind, *Shared Path 2030* conceived four alternative future transportation systems in which the following transportation system elements are elaborated:

- Regional strategies for carrying out community development and transportation management proposals at a regional level.

- Multimodal system improvements to the region's system of shared-use facilities (i.e., primarily arterial streets that serve autos, buses, bicycles and have a direct interface with the pedestrian environment).

- Specific major capital projects typically employed as a means to move larger numbers of travelers longer distances by a single mode.

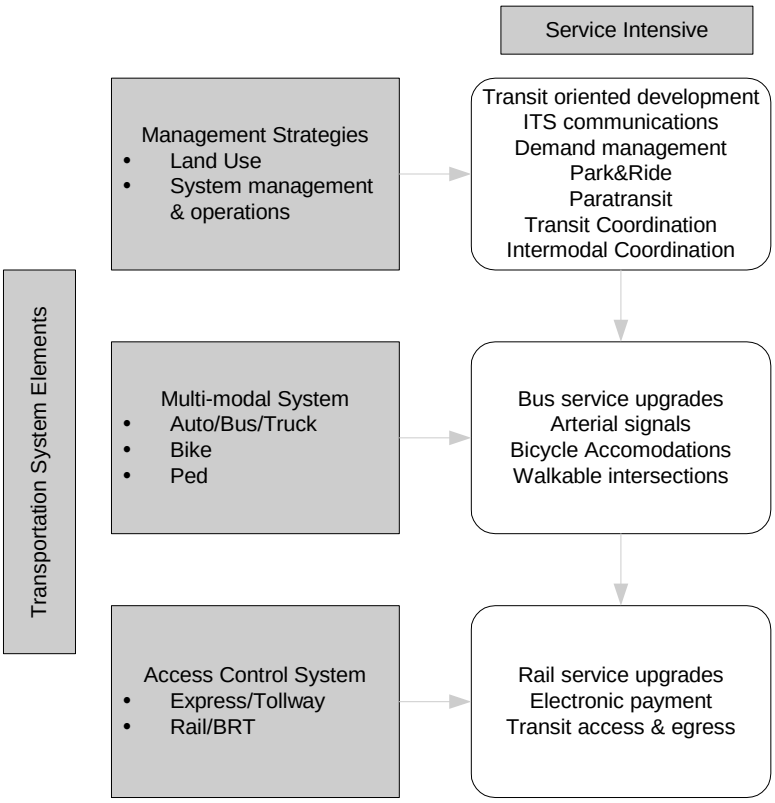
Accordingly, four thematic future regional scenarios were evaluated, each of which is described on the following pages.

Service-Intensive Scenario

The service-intensive scenario focused on transportation strategies that improve user benefits under existing management, operations and capacity conditions. Service improvements for any mode are typically accomplished in the course of reconstruction or capital maintenance, but may also be pursued as "stand-alone" regional strategies. These strategies have the added benefit of allowing quick adjustments to service in response to changes in the needs or composition of users. This alternative was intended to illustrate the benefits of non-capital intensive strategies to improve the transportation system.

Examples are shown below:

Figure 9 : Service-Intensive Scenario



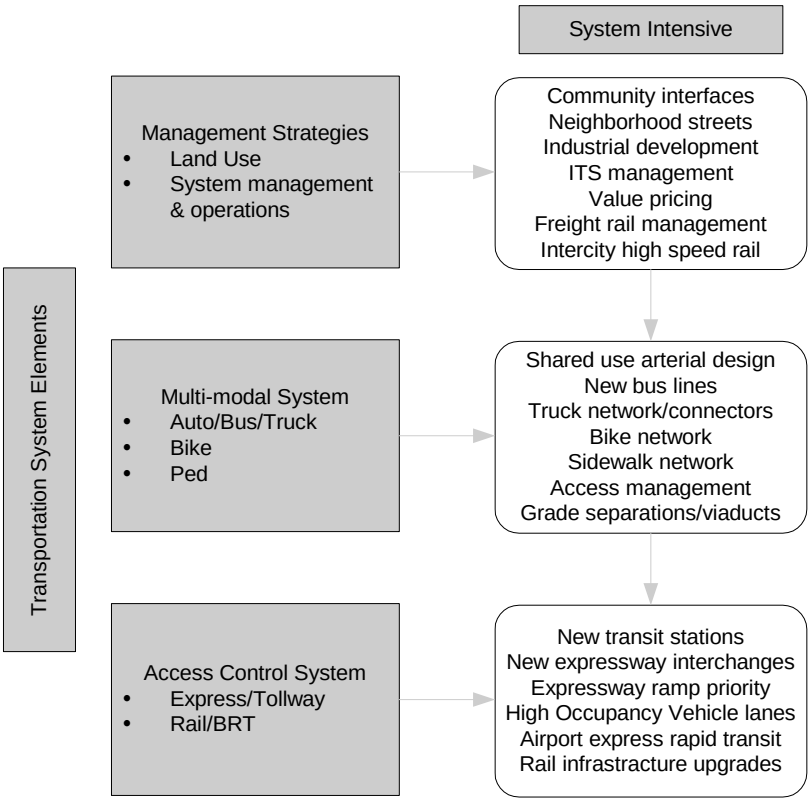
System-Intensive Scenario

The system-intensive scenario introduced limited capital improvements and operational changes on the existing system. System improvements for any mode are typically made in response to the need to make strategic changes in facility operations. These may be in response to changes in technology or demand patterns.

This alternative was intended to illustrate the benefits of low-capital-intensive strategies to improve the transportation system.

Examples are shown below:

Figure 10: System-Intensive Scenario

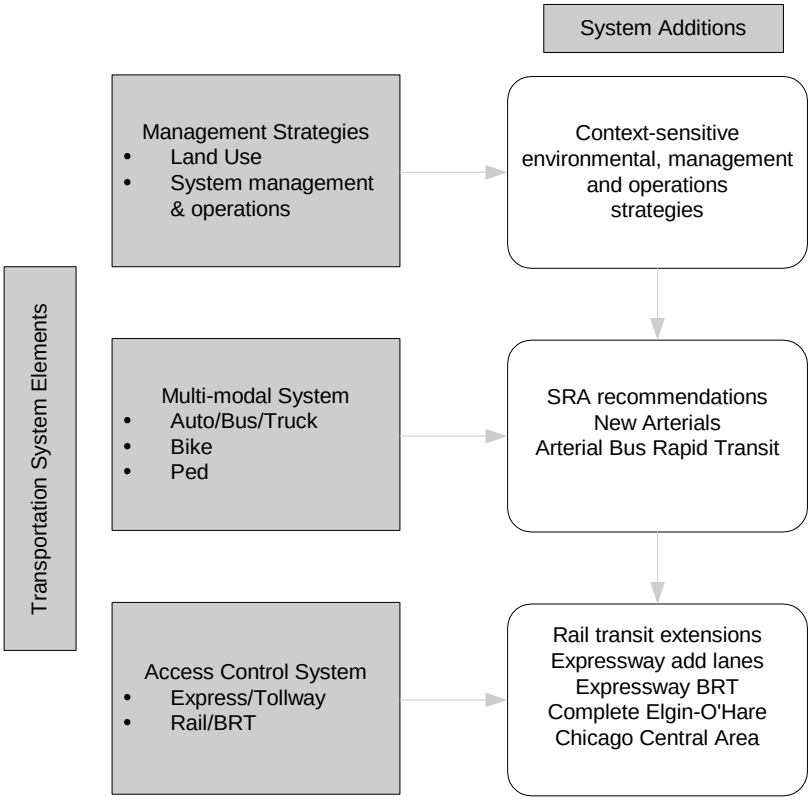


System Additions Scenario

With the system additions scenario, capacity additions to existing major highways and rail facilities were introduced. These may result in net new capacity or in existing capacity retrofitted for another function. Capital additions oriented toward improving hub circulation in the Chicago Central Area were included. Completion of existing expressway connections and extensions of existing radial transit lines were also included. System additions are made in response to capacity deficiencies that result from established growth patterns or changing demand patterns. This alternative was intended to illustrate the benefits of capital-intensive strategies to improve the existing transportation system.

Examples of these types are shown below:

Figure 11: System Additions Scenario

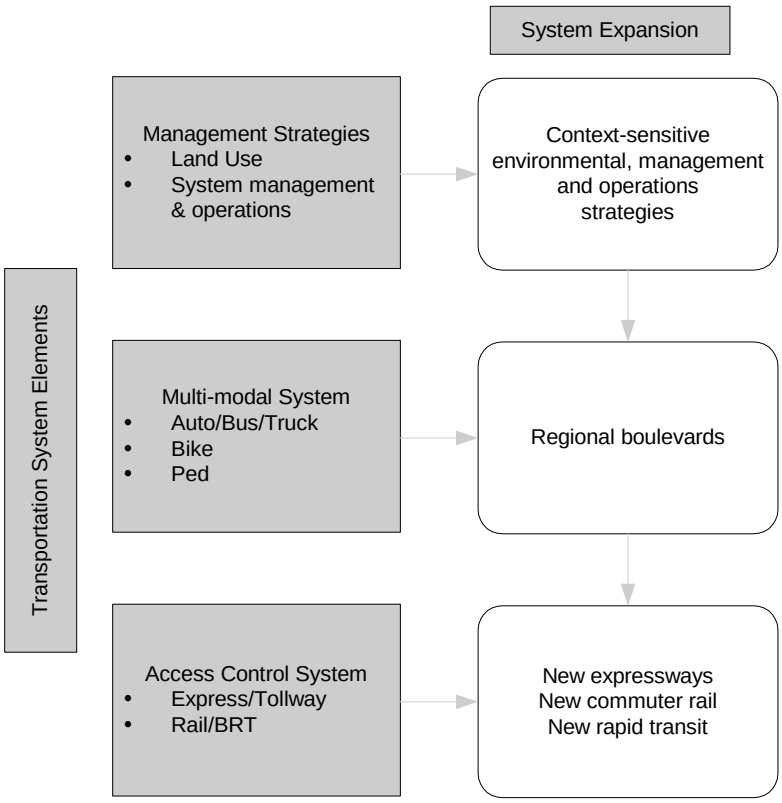


System Expansion Scenario

The system expansion scenario introduced significant new segments to the region's major highway and passenger rail system, with the intent of accommodating or managing projected growth. These proposals are the most expensive, they fundamentally change the way travelers use the transportation system, and they have the potential to induce significant land use changes. Because of their large scale, they are subject to elaborate financing, design, engineering and environmental reviews. This alternative was intended to illustrate the benefits of capital-intensive approaches to improving the transportation system by adding new major capital facilities.

Examples of these types are shown below:

Figure 12: System Expansion Scenario



2.2.4 Measuring Transportation Benefits

A technical evaluation of the transportation system is intended to help examine the effects of proposed transportation improvements on each other, as well as their combined contribution toward the plan's goals and objectives.

To begin, a general "sketch" analysis of each major capital project was performed in support of assembling the network alternatives. This consisted of developing and preparing the necessary data needed to represent each project in a regional travel demand analysis. This provided a first round of "cause-effect" results[40] that allowed each proposal's "champion"[41] the opportunity to refine the proposal for placement in one of the four thematic alternative future regional scenarios.

The analysis used economic, statistical and engineering methods to evaluate the alternatives based on fundamental principles that illustrate rational behavior.[42]

Shared Path 2030 included two types of technical evaluation:

- An assessment of transportation system supply, demand and effects.
- An assessment of traveler mobility and accessibility.

The evaluation measures themselves played a variety of roles in the plan development process, but primarily they were intended to improve understanding of how the transportation system works and illustrate the relative contributions of the various transportation proposals to achieving the plan's goals and objectives.

2.2.4.1 Transportation system performance

An important element of a transportation system's success is the efficiency with which it functions as a unified whole. It is therefore important that some evaluation measures reflect the effects of transportation decisions on the performance of the entire system.[43] These system measures result from an assessment of an equilibrium between travel supply and demand.

Transportation system supply measures

Walkable miles

Tripmaking that can be satisfied by non-motorized means is, in part, a function of the overall pedestrian environment in an area. Alternatives including regional and project-level strategies that called for improved pedestrian and bicycling environments resulted in a higher "pedestrian environment factor" (PEF[44]) applied to the affected areas. To facilitate comparing this measure to other transportation system supply measures, the PEF for each zone is divided by the standard Chicago "8 blocks per mile.".

Highway lane miles

Demand for auto and truck travel is, in part, a function of the overall capacity offered by the highway system. While the actual capacity of a highway facility varies by its design, tabulating highway lane miles provides a quick comparison of highway supply in each scenario.

Daily transit service hours

Demand for travel by public transit is a function not only of physical facilities, but also the frequency and speed of service offered by transit providers. The level of transit

service varies across the day, with both supply and demand peaking during the traditional morning and afternoon rush. To facilitate comparing this measure to other transportation system supply measures, the peak period transit service levels have been expanded to a daily measure of service hours.

Tripmaking behavior

The number, mode and purpose of trips affect system performance. The travel demand analysis calculates trips generated based on household composition (e.g., adults, workers, children and auto ownership) and employment. In addition, the location and "pedestrian environment" of households will affect the number and purpose of trips made.

Shared Path 2030 anticipated that a denser arrangement of socioeconomic activity[45] generating fewer motorized trips, shorter trip lengths and providing good transit options makes less costly demands on the transportation system.

Transportation system demand

Trip lengths, mode and route choice affect system performance. Person-miles traveled and person-hours traveled are tabulated from transportation network demand statistics that respond to variations in these components of travel demand.

Miles and hours traveled are affected primarily by congestion on the demand side and the introduction of new or expanded system capacity on the supply side. To a lesser extent, these network statistics are affected by marginal changes in the pattern or density of development.

Shared Path 2030 anticipated that reduced miles and hours of travel are associated with lower energy costs, less pollution and more efficient use of the transportation system. Congestion affects both travel time and route choice. High VHT (vehicle hours traveled) due to recurring congestion also affects overall system performance. Future estimates of tripmaking, trip lengths, mode choice and network performance are also significantly affected by link-level congestion.

Shared Path 2030 anticipated that reduced traffic congestion is associated with reduced fuel[46] consumption, less pollution and more efficient use of the transportation system.

Transportation system costs

Energy costs

Energy consumption is associated with both the type of transportation supply and level of demand. Energy costs are calculated by applying energy consumption statistics to travel demand model results. Included are fuel costs estimated by current prices and consumption rates. Current nominal assumptions regarding energy costs are held constant and applied to changed transportation variables.

Shared Path 2030 anticipated that lower energy costs are associated with more efficient use of the transportation system.

Capital construction and maintenance costs

Capital costs represent a constraint on the plan's recommendations. The estimates are made on a unit cost basis for the capital proposal as initially proposed. This provides only the most general indicator of the financial costs associated with each alternative.

Further refinement of recommended proposals, including unforeseen right-of-way, community and environmental mitigation costs, can significantly affect the final capital cost of an individual proposal.

In this case, *Shared Path 2030* anticipated that capital investment in the transportation system should be commensurate with other system benefits.

Natural environment sensitivity

The methodology for analyzing 2030 project proposals employed a composite natural resource score based on the degree and type of natural resources present within the project zone of analysis. The composite score made the comparison of projects and alternatives possible.[47]

The natural resource categories used in this evaluation were included based on their importance to protecting the region's water resources, natural areas, and farmlands and were only tabulated for proposed major capital projects. Therefore, there is no composite score reported for the non-capital-intensive alternatives nor for the existing transportation system. These categories are broad-ranging and their selection was based, in part, on the availability of reliable information at the regional scale.

Shared Path 2030 anticipated that higher composite natural resources scores indicate a greater likely need for avoidance or mitigation of natural resource impacts.

2.2.4.2 Evaluation of transportation system performance

Table 6 on the next page provides a regional overview of the transportation system supply, demand and effects under each thematic alternative.

Table 6 : 2030 Transportation System Performance

	System Commitments	Service Intensive	System Intensive	System Additions	System Expansion
Transportation system supply					
Walkable miles (PEF/8)	25,259	27,250	28,847	25,944	26,317
Highway lane miles (arterials and up)	27,499	27,499	27,577	29,649	28,255
Transit service hours (daily)	21,451	24,879	29,235	30,235	28,803
Tripmaking behavior					
Trips (daily in thousands)	25,303	24,801	24,814	24,960	24,967
% trips in Chicago	27.3%	31.0%	29.9%	28.8%	29.15%
% trips non-motorized	5.5%	6.5%	6.6%	5.8%	5.8%
% trips by transit	7.2%	9.9%	10.4%	9.4%	10.2%
Average work trip minutes by transit	40.4	40.9	40.5	36.4	36.7
Average work trip minutes by auto	25.3	25.5	25.9	24.7	25.1
Transportation system demand (in thousands)					
Transit hours traveled (daily passenger)	996	1,364	1,402	1,169	1,282
Auto hours traveled (daily person)	7,192	6,546	6,543	6,478	6,526
Auto miles traveled (daily person)	164,055	159,428	160,792	166,133	162,778
Congested Vehicle Miles (a.m. peak)	35%	35%	34%	29%	31%
Costs (in billions of 2000 dollars)					
Capital construction and maintenance*	$48.0	$49.3	$52.7	$66.2	$58.9
Annual energy costs	$7.2	$7.1	$7.4	$7.2	$7.2
Natural Environment					
Composite mean Score	n/a	n/a	n/a	15.36	17.12
Composite maximum score	n/a	n/a	n/a	66.01	72.67

2.2.4.3 Traveler mobility and accessibility

An important element of a transportation system's success is the "level of service" it offers its users. "Level of service" is defined as the mobility the system engenders and the accessibility it provides to travelers in the region. In order to evaluate the regional equity and comparative effectiveness of mobility and accessibility improvements, these measures are stratified (i.e., classified, aggregated) into the following discrete groups:

- Subregional geography[48]
- Minority population (by residence)
- Household income (by residence)

The mobility and accessibility measures expected to respond to the RTP recommendations include:

- Use of transportation modes
- Access to transit
- Access to jobs
- Work commute times

Use of transportation modes

A person's decision regarding travel mode typically includes an assessment of the different costs associated with the modes available.

Mode use measures are most often expressed as the number of trips made by auto, transit or non-motorized means. It is frequently reported as a percentage of total trips made by a particular mode.

Auto and transit trips are estimated by comparing the relative generalized costs of making a trip by each mode. The costs are estimated under the different thematic future alternatives, each with a different set of policy and network assumptions.

Shared Path 2030 anticipated that a wider range of choices among modes confers a benefit (i.e., having more choices available reflects better mobility and accessibility).

Access to transit

A traveler's proximity to major rail transit facilities is associated with having greater mode choice to more destination opportunities in the region.

The part of the trip each traveler needs to make in order to reach a rail passenger station is called the "access leg." The principal ways to access rail transit are by walking, biking, bus or auto. The decision to use rail transit is very heavily weighted in terms of the time, costs and mode of access, including parking costs/capacity and the time spent waiting for the train.

Accessibility to rail transit will change as new facilities are introduced. Introducing transit-oriented development will improve the opportunity to choose transit as an alternate mode for more travelers. In the case of auto access to transit, accessibility will also change with prevailing highway congestion.

Shared Path 2030 anticipated that easier accessibility to transit stations confers a benefit to residential or employment locations.

Evaluation of "Use of transportation modes and Access to transit"

Tables 7-12 on the following pages show the mode choice and access to transit effects by trip purpose for each future regional alternative by geography, race/ethnicity and income level.

Note that measures are reported based on the traveler's "home-base" even though they may have received the benefit of a transportation improvement elsewhere.

By subregional geography

Tables 7 and 8 stratify the evaluation results by county. The Chicago Central Business District (CBD), balance of Chicago and balance of Cook County are reported separately.

Work trips

Work trips are based at the traveler's home location and include short diversions (e.g., errands, drop-off/pick-up and park&ride) along the way.

All trips

The tabulation of all trips is based at the traveler's home location if referenced, but also includes non-home-based trips.

Table 7: 2030 Mode Use and Access to Transit: Work Trips by Geography

District	Population in Households (000)	Workers in Households (000)	Total Work Trips (000)	Work Trips Taken by Auto (000)	% of Work Trips Taken by Auto	Work Trips Taken by Transit (000)	% of Work Trips Taken by Transit	Work Trips Taken by Transit (with Auto Access) (000)	% of Transit Trips with Auto Access	Average Transit Trip Distance in Miles	Average Transit Trip Time in Minutes	Average Auto Trip Distance in Miles	Average Auto Trip Time in Minutes
System Commitments													
CBD	39	31	29	20	70%	9	30%	0	0%	4.9	23.9	10.2	24.4
Chicago Bal	2,626	1,194	1,825	1,340	73%	485	27%	32	7%	8.9	37.5	10.5	28.2
Cook Bal.	2,722	1,414	2,165	1,848	85%	318	15%	139	44%	15.9	48.1	9.2	22.2
DuPage	998	561	905	832	92%	73	8%	43	59%	17.4	55.7	9.1	21
Kane	666	333	541	526	97%	15	3%	4	26%	14.8	67.5	11.2	25.7
Lake	881	460	746	700	94%	46	6%	26	58%	31.7	69.3	10.2	29.2
McHenry	430	224	364	352	97%	12	3%	7	61%	24.3	68.5	12.5	29.8
Will	1,276	641	1,042	971	93%	71	7%	50	71%	27.3	67.6	12.5	29.4
Kendall	100	53	86	86	100%	0	0%	0	0%	0	0	11.9	33.1
Region	**9,738**	**4,914**	**7,705**	**6,677**	**87%**	**1,028**	**13%**	**302**	**29%**	**14.3**	**46.2**	**10.7**	**26.5**
Service Intensive													
CBD	49	39	35	23	65%	12	35%	0	0%	5.1	21.9	10.8	26.1
Chicago Bal	2,936	1,336	2,023	1,359	67%	664	33%	48	7%	9.2	36.1	11.3	29.9
Cook Bal.	2,831	1,467	2,225	1,741	78%	484	22%	206	42%	16.3	46.6	10.3	23.7
DuPage	986	554	893	778	87%	116	13%	65	56%	17.8	54.6	9.8	21.4
Kane	597	300	488	462	95%	25	5%	9	35%	17.3	64.2	11.3	24.1
Lake	742	387	630	564	90%	66	10%	40	61%	31.8	68.6	11	27.1
McHenry	343	180	292	280	96%	12	4%	7	58%	24.5	67.7	13.1	27.7
Will	1,107	557	905	802	89%	104	11%	62	60%	30.2	72.4	13.5	28.3
Kendall	72	38	62	62	100%	0	0%	0	0%	0	0	12.1	30
Region	**9,664**	**4,859**	**7,552**	**6,070**	**80%**	**1,482**	**20%**	**436**	**29%**	**14.8**	**45.3**	**11.4**	**26.5**
System Intensive													
CBD	46	37	32	22	67%	11	33%	0	0%	4.6	21.4	9.2	22.1
Chicago Bal	2,824	1,282	1,941	1,342	69%	598	31%	66	11%	8.9	35.7	10.6	27.7
Cook Bal.	2,844	1,474	2,226	1,719	77%	507	23%	164	32%	15.5	45.9	10.8	24.2
DuPage	1,001	562	906	757	84%	148	16%	50	34%	15	51.3	10.4	22.7
Kane	611	307	499	454	91%	45	9%	17	37%	23.3	61.3	11.7	25
Lake	763	398	645	554	86%	91	14%	34	38%	23.9	61.1	11.9	29.1
McHenry	353	185	300	273	91%	26	9%	17	65%	31.2	63.3	13	27.8
Will	1,146	577	937	809	86%	127	14%	66	52%	28.8	70.8	14.2	29.2
Kendall	75	40	65	65	100%	0	0%	0	0%	0	0	12	30.1
Region	**9,662**	**4,861**	**7,550**	**5,996**	**79%**	**1,554**	**21%**	**415**	**27%**	**15**	**46**	**11.8**	**26.8**
System Additions													
CBD	45	36	33	22	66%	11	34%	0	0%	4.7	20	10.1	22.9
Chicago Bal	2,761	1,255	1,914	1,321	69%	1	31%	57	10%	9	34.4	10.9	27.7
Cook Bal.	2,804	1,454	2,221	1,792	81%	429	19%	145	34%	14.9	44.4	10.5	23
DuPage	982	552	890	784	88%	106	12%	26	25%	13.6	48.5	10.1	21.3
Kane	640	320	522	499	96%	23	4%	2	10%	13.6	54.1	11.7	22.9
Lake	801	418	683	630	92%	53	8%	8	15%	17.3	53.7	11.3	26.6
McHenry	390	204	333	321	97%	12	3%	2	22%	16.4	55.7	13.4	26.6
Will	1,144	576	934	876	94%	58	6%	26	46%	20.5	66	13.2	26.7
Kendall	78	42	67	66	98%	1	2%	0	4%	9.9	41.1	13.4	28.2
Region	**9,644**	**4,856**	**7,597**	**6,312**	**83%**	**1,285**	**17%**	**268**	**21%**	**12.5**	**41.5**	**11.5**	**25.6**
System Expansion													
CBD	45	36	33	21	64%	12	36%	0	0%	3.6	18.3	8.5	20.5
Chicago Bal	2,763	1,255	1,912	1,298	68%	614	32%	41	7%	8.3	33.1	9.9	26
Cook Bal.	2,806	1,454	2,221	1,742	78%	480	22%	185	39%	15.2	43.9	10.2	23.3
DuPage	997	561	904	774	86%	130	14%	44	34%	14.8	49.4	10.1	22.8
Kane	587	294	479	451	94%	28	6%	7	24%	15.3	56.4	11.7	25.4
Lake	829	433	701	636	91%	65	9%	19	30%	20	54.8	11.9	27.9
McHenry	351	184	298	289	97%	10	3%	2	22%	18	57.1	13.8	28.4
Will	1,212	610	991	890	90%	101	10%	56	55%	25.1	62.2	13.7	27.7
Kendall	73	39	63	63	100%	0	0%	0	45%	0	0	12	29.8
Region	**9,663**	**4,865**	**7,603**	**6,165**	**81%**	**1,438**	**19%**	**354**	**25%**	**13**	**41.5**	**11.4**	**26**

Table 8: 2030 Mode Use and Access to Transit: All Trips by Geography

District	Population in Households (000)	Workers in Households (000)	Total Trips (000)	Trips Taken by Auto (000)	% of Trips Taken by Auto	Trips Taken by Transit (000)	% of Trips Taken by Transit	Trips Taken by Transit (with Auto Access) (000)	% of Transit Trips with Auto Access
System Commitments									
CBD	39	31	560	378	67%	182	33%	0	0%
Chicago Bal.	2,626	1,194	5,246	4,276	82%	970	18%	34	4%
Cook Bal.	2,722	1,414	7,372	6,848	93%	525	7%	142	27%
DuPage	998	561	3,047	2,923	96%	1234	4%	44	35%
Kane	666	333	1,882	1,849	98%	33	2%	4	12%
Lake	881	460	2,601	2,529	97%	72	3%	27	37%
McHenry	430	225	1,289	1,270	99%	19	1%	7	38%
Will	1,276	641	3,332	3,244	97%	88	3%	50	57%
Kendall	100	53	262	262	100%	0	0%	0	0%
Region	**9,738**	**4,914**	**25,591**	**23,577**	**92%**	**2,014**	**8%**	**309**	**15%**
Service Intensive									
CBD	49	39	710	479	68%	230	32%	0	0%
Chicago Bal.	2,936	1,336	5,717	4,449	78%	1,268	22%	59	5%
Cook Bal.	2,831	1,467	7,361	6,630	90%	731	10%	210	29%
DuPage	986	554	2,996	2,822	94%	174	6%	66	38%
Kane	597	300	1,717	1,671	97%	46	3%	9	20%
Lake	742	387	2,242	2,150	96%	92	4%	41	44%
McHenry	343	180	1,071	1,053	98%	18	2%	7	39%
Will	1,107	557	2,866	2,745	96%	121	4%	62	51%
Kendall	72	38	196	196	100%	0	0%	0	0%
Region	**9,664**	**4,859**	**24,875**	**22,195**	**89%**	**2,680**	**11%**	**454**	**17%**
System Intensive									
CBD	46	37	699	472	68%	227	32%	0	0%
Chicago Bal.	2,824	1,282	5,574	4,476	80%	1,098	20%	70	6%
Cook Bal.	2,844	1,474	7,339	6,531	89%	808	11%	170	21%
DuPage	1,001	562	3,012	2,747	91%	265	9%	53	20%
Kane	611	307	1,746	1,674	96%	72	4%	17	24%
Lake	762	398	2,276	2,122	93%	154	7%	36	23%
McHenry	353	185	1,093	1,057	97%	35	3%	18	49%
Will	1,146	577	2,933	2,779	95%	154	5%	67	43%
Kendall	75	40	200	200	100%	0	0%	0	0%
Region	**9,662**	**4,861**	**24,872**	**22,058**	**89%**	**2,814**	**11%**	**430**	**15%**
System Additions									
CBD	45	36	609	409	67%	201	33%	0	0%
Chicago Bal.	2,761	1,255	5,493	4,361	79%	1,131	21%	59	5%
Cook Bal.	2,804	1,454	7,452	6,691	90%	761	10%	152	20%
DuPage	982	552	3,023	2,791	92%	232	8%	29	13%
Kane	640	320	1,844	1,790	97%	54	3%	3	5%
Lake	801	418	2,416	2,295	95%	121	5%	9	7%
McHenry	390	204	1,198	1,174	98%	24	2%	3	12%
Will	1,144	576	2,972	2,880	97%	87	3%	27	31%
Kendall	78	42	215	213	99%	1	1%	0	4%
Region	**9,645**	**4,856**	**25,222**	**22,609**	**90%**	**2,613**	**10%**	**282**	**11%**
System Expansion									
CBD	45	36	702	474	67%	229	33%	0	0%
Chicago Bal.	2,763	1,255	5,494	4,325	79%	1,169	21%	45	4%
Cook Bal.	2,806	1,454	7,397	6,571	89%	826	11%	192	23%
DuPage	997	561	3,027	2,762	91%	265	9%	48	18%
Kane	587	294	1,692	1,635	97%	58	3%	7	12%
Lake	829	433	2,462	2,333	95%	129	5%	21	16%
McHenry	351	184	1,090	1,070	98%	20	2%	2	12%
Will	1,212	610	3,126	2,994	96%	132	4%	58	44%
Kendall	73	39	199	199	100%	0	0%	0	36%
Region	**9,663**	**4,865**	**25,189**	**22,362**	**89%**	**2,827**	**11%**	**372,559**	**13%**

By race/ethnicity

Tables 9 and 10 stratify the evaluation results by minority race or ethnicity concentrations within an analysis zone.

Shared Path 2030 defined "minority population" as the total number of persons in a zone who reported themselves in the 2000 Census as non-white or Hispanic.

Work trips

Work trips are based at the traveler's home location and include short diversions (e.g., errands, drop-off/pick-up and park&ride) along the way.

All trips

The tabulation of all trips is based at the traveler's home location if referenced, but also includes non-home-based trips.

Table 9: 2030 Mode Use and Access to Transit: Work Trips by Minority Concentration

Percent Minority Population in Zone	Population in Households (000)	Workers in Households (000)	Total Work Trips (000)	Work Trips Taken by Auto (000)	% of Work Trips Taken by Auto	Work Trips Taken by Transit (000)	% of Work Trips Taken by Transit	Work Trips Taken by Transit (with Auto Access) (000)	% of Transit Trips with Auto Access	Average Transit Trip Distance in Miles	Average Transit Trip Distance in Minutes	Average Auto Trip Distance in Miles	Average Auto Trip Time in Minutes
System Commitments													
< 13%	3,073	1,592	2,542	2,332	92%	211	8%	135	64%	16	47.8	9.5	24.3
13 - 37%	2,968	1,657	2,595	2,316	89%	279	11%	70	25%	16	47.8	9.5	24.3
38 - 62%	1,357	716	1,113	935	84%	178	16%	38	21%	10.6	42.4	10.1	26
63 - 88%	941	433	663	515	78%	148	22%	29	20%	10.2	41.2	10.8	26.9
> 88%	1,400	515	791	578	73%	213	27%	29	14%	10.4	41.6	11.5	27.4
Region	**9,738**	**4,914**	**7,705**	**6,677**	**87%**	**1,028**	**13%**	**302**	**29%**	**14.3**	**46.2**	**10.7**	**26.5**
Service Intensive													
< 13%	2,746	1,426	2,267	1,972	87%	295	13%	178	60%	16.7	46.8	10.2	24.3
13 - 37%	2,925	1,646	2,554	2,127	83%	428	17%	111	26%	16.7	46.8	10.2	24.3
38 - 62%	1,408	743	1,143	885	77%	258	23%	61	24%	11.3	42.6	10.9	26.4
63 - 88%	1,019	469	712	505	71%	207	29%	43	21%	11.2	40.6	11.6	28.3
> 88%	1,566	575	877	582	66%	295	34%	43	14%	10.7	40.1	12.7	29.5
Region	**9,664**	**4,859**	**7,552**	**6,070**	**80%**	**1,482**	**20%**	**436**	**29%**	**14.8**	**45.3**	**11.4**	**26.5**
System Intensive													
< 13%	2,814	1,460	2,319	1,975	85%	344	15%	146	43%	15.3	46.4	10.7	25.1
13 - 37%	2,944	1,651	2,561	2,076	81%	485	19%	103	21%	15.3	46.4	10.7	25.1
38 - 62%	1,392	734	1,128	870	77%	258	23%	62	24%	11.4	42.8	11	26.2
63 - 88%	998	460	696	500	72%	195	28%	45	23%	12	40.4	11.3	27
> 88%	1,514	557	847	574	68%	273	32%	58	21%	10.4	39.4	12.2	27.9
Region	**9,662**	**4,861**	**7,550**	**5,996**	**79%**	**1,554**	**21%**	**415**	**27%**	**15**	**46**	**11.8**	**26.8**
System Additions													
< 13%	2,860	1,483	2,368	2,158	91%	210	9%	65	31%				
13 - 37%	2,944	1,648	2,577	2,192	85%	385	15%	59	15%	13.3	42.2	10.5	23.7
38 - 62%	1,384	730	1,131	899	79%	233	21%	45	19%	10.9	39.4	11	25.3
63 - 88%	980	452	689	502	73%	188	27%	46	25%	9.5	36.4	11.6	26.7
> 88%	1,477	543	832	563	68%	269	32%	53	20%	10.4	38.2	12.3	27.7
Region	**9,645**	**4,856**	**7,597**	**6,312**	**83%**	**1,285**	**17%**	**268**	**21%**	**12.5**	**41.5**	**11.5**	25.6
System Expansion													
< 13%	2,883	1,496	2,385	2,102	88%	283	12%	130	46%	13.7	42.2	10.4	24.5
13 - 37%	2,928	1,641	2,562	2,131	83%	431	17%	84	19%	13.7	42.2	10.4	24.5
38 - 62%	1,382	729	1,128	880	78%	249	22%	56	22%	11.5	39.4	10.6	25.6
63 - 88%	982	452	690	490	71%	200	29%	46	23%	9.6	36.4	10.8	25.8
> 88%	1,488	547	838	563	67%	275	33%	39	14%	9.9	37.1	11.3	26
Region	**9,663**	**4,865**	**7,603**	**6,165**	**81%**	**1,438**	**19%**	**354**	**25%**	**13**	**41.5**	**11.4**	26

Table 10: 2030 Mode Use and Access to Transit: All Trips by Minority Concentration

Percent Minority Population in Zone	Popula-tion in House-holds (000)	Workers in House-holds (000)	Total Trips (000)	Trips Taken by Auto (000)	% of Trips Taken by Auto	Trips Taken by Transit (000)	% of Trips Taken by Transit	Trips Taken by Transit (with Auto Access) (000)	% of Transit Trips with Auto Access
System Commitments									
< 13%	3,073	1,592	8,619	8,314	96%	304	4%	137	45%
13 - 37%	2,968	1,657	8,780	8,122	93%	658	7%	71	11%
38 - 62%	1,357	716	3,626	3,238	89%	388	11%	39	10%
63 - 88%	941	433	2,108	1,831	87%	277	13%	31	11%
> 88%	1,400	515	2,458	2,071	84%	387	16%	29	8%
Totals	9,738	4,914	25,591	23,577	92%	2,014	8%	309	15%
Service Intensive									
< 13%	2,746	1,426	7,734	7,330	95%	404	5%	180	45%
13 - 37%	2,925	1,646	8,610	7,725	90%	885	10%	113	13%
38 - 62%	1,408	743	3,687	3,181	86%	506	14%	63	12%
63 - 88%	1,019	469	2,195	1,832	83%	362	17%	52	14%
> 88%	1,566	575	2,649	2,127	80%	523	20%	46	9%
Totals	9,664	4,859	24,875	22,195	89%	2,680	11%	454	17%
System Intensive									
< 13%	2,814	1,460	7,839	7,326	93%	513	7%	151	29%
13 - 37%	2,944	1,651	8,624	7,607	88%	1,017	12%	108	11%
38 - 62%	1,392	734	3,665	3,167	86%	498	14%	65	13%
63 - 88%	998	460	2,165	1,833	85%	333	15%	47	14%
> 88%	1,514	557	2,579	2,125	82%	454	18%	59	13%
Totals	9,662	4,861	24,872	22,058	89%	2,814	11%	430	15%
System Additions									
< 13%	2,860	1,483	8,129	7,727	95%	402	5%	69	17%
13 - 37%	2,944	1,648	8,729	7,806	89%	923	11%	64	7%
38 - 62%	1,384	730	3,669	3,187	87%	482	13%	47	10%
63 - 88%	980	452	2,144	1,806	84%	338	16%	49	14%
> 88%	1,477	543	2,551	2,082	82%	468	18%	54	12%
Totals	9,645	4,856	25,222	22,609	90%	2,613	10%	282	11%
System Expansion									
< 13%	2,883	1,496	8,092	7,618	94%	474	6%	137	29%
13 - 37%	2,928	1,641	8,677	7,670	88%	1,007	12%	90	9%
38 - 62%	1,382	729	3,682	3,169	86%	513	14%	58	11%
63 - 88%	982	452	2,157	1,799	83%	357	17%	49	14%
> 88%	1,488	547	2,582	2,106	82%	476	18%	39	8%
Totals	9,663	4,865	25,189	22,362	89%	2,827	11%	373	13%

By income

Tables 11 and 12 stratify the evaluation results by income level within an analysis zone.

Shared Path 2030 defined "income level" as the average of median household incomes in a zone (usually about 1 mile square).

Work trips

Work trips are based at the traveler's home location and include short diversions (e.g., errands, drop-off/pick-up and park&ride) along the way.

All trips

The tabulation of all trips is based at the traveler's home location if referenced, but also includes non-home-based trips.

Table 11: 2030 Mode Use and Access to Transit: Work Trips by Income Level

Ratio of Zone Average Income to Regional Average	Popu-lation in House-holds (000)	Workers in House-holds (000)	Total Work Trips (000)	Work Trips Taken by Auto (000)	% of Work Trips Taken by Auto	Work Trips Taken by Transit (000)	% of Work Trips Taken by Transit	Work Trips Taken by Transit (with Auto Access) (000)	% of Transit Trips (with Auto Access)	Average Transit Trip Dis-tance in Miles	Average Transit Trip Dis-tance in Minutes	Average Auto Trip Distance in Miles	Average Auto Trip Time in Minutes
System Commitments													
0 -.25	32	7	12	8	72%	3	28%	0		6.7	30.4	10.7	25.3
.25 -.75	1,703	751	1,173	953	81%	220	19%	50	22%	14.9	46.4	10.4	25.8
.75 - 1.25	6,138	3,178	4,964	4,317	87%	647	13%	174	27%	12.9	45.7	10.5	26.1
1.25-1.75	1,356	716	1,136	1,014	89%	122	11%	58	48%	17.4	45.4	10.4	25.4
> 1.75	509	261	420	385	92%	35	8%	20	57%	21	56.7	12.2	29.8
Totals	**9,738**	**4,914**	**7,705**	**6,677**	**87%**	**1,028**	**13%**	**302**	**29%**	**14.3**	**46.2**	**10.7**	**26.5**
Service Intensive													
0 -.25	39	8	14	9	67%	5	33%	0	0%	6.4	27.3	11.4	27.2
.25 -.75	1,782	775	1,199	894	75%	305	25%	65	21%	15.4	45.4	11.3	26.8
.75 - 1.25	6,112	3,160	4,895	3,937	80%	957	20%	273	29%	13.7	45.2	11.2	26.1
1.25-1.75	1,257	672	1,056	886	84%	170	16%	74	44%	17.5	43.6	11.1	25.3
> 1.75	474	243	389	343	88%	46	12%	24	52%	20.9	53.4	12.5	29
Totals	**9,664**	**4,859**	**7,552**	**6,070**	**80%**	**1,482**	**20%**	**436**	**29%**	**14.8**	**45.3**	**11.4**	**26.5**
System Intensive													
0 -.25	36	8	13	9	69%	4	31%	0	1%	6.2	29	10.4	24.7
.25 -.75	1,751	764	1,180	895	76%	285	24%	54	19%	13	42.9	11.1	26
.75 - 1.25	6,100	3,153	4,880	3,866	79%	1,014	21%	271	27%	14.3	46	11.5	26.4
1.25-1.75	1,284	683	1,074	883	82%	191	18%	63	33%	18.9	47.7	11.6	25.8
> 1.75	492	252	403	343	85%	60	15%	26	43%	20.4	54.3	13.4	30.1
Totals	**9,662**	**4,861**	**7,550**	**5,996**	**79%**	**1,554**	**21%**	**415**	**27%**	**15**	**46**	**11.8**	**26.8**
System Additions													
0 -.25	36	8	13	9	67%	4	33%	0	3%	5.9	27.5	10.5	24.2
.25 -.75	1,730	758	1,180	928	79%	253	21%	32	13%	11.5	39.6	11	25
.75 - 1.25	6,087	3,148	4,907	4,056	83%	851	17%	190	22%	11.3	41.2	11.4	25.3
1.25-1.75	1,291	686	1,085	945	87%	140	13%	35	25%	16.8	43.4	11.1	24
> 1.75	501	257	412	374	91%	38	9%	10	27%	17.6	47.9	12.6	28.7
Totals	**9,645**	**4,856**	**7,598**	**6,312**	**83%**	**1,285**	**17%**	**268**	**21%**	**12.5**	**41.5**	**11.5**	**25.6**
System Expansion													
0 -.25	36	8	13	9	67%	4	33%	0	0%	5.7	26.2	9.2	21.8
.25 -.75	1,734	759	1,181	895	76%	286	24%	57	20%	11.7	39	10.9	25.4
.75 - 1.25	6,084	3,147	4,900	3,984	81%	916	19%	207	23%	12.5	41.7	11.1	25.6
1.25-1.75	1,313	696	1,101	924	84%	177	16%	65	37%	16.9	43.4	11.3	24.9
> 1.75	497	255	409	353	86%	55	14%	24	44%	15.5	46.8	12.8	29.3
Totals	**9,663**	**4,865**	**7,603**	**6,165**	**81%**	**1,438**	**19%**	**354**	**25%**	**13**	**41.5**	**11.4**	**26**

Table 12: 2030 Mode Use and Access to Transit: All Trips by Income Level

Ratio of Zone Average Income to Regional Average	Population (000)	Workers (000)	Total Trips (000)	Trips Taken by Auto (000)	% of Trips Taken by Auto	Trips Taken by Transit (000)	% of Trips Taken by Transit	Trips Taken by Transit (with Auto Access) (000)	% of Transit Trips (with Auto Access)
System Commitments									
0 -.25	32	7	118	88	75%	30	25%	0	0%
.25 - .75	1,703	751	3,958	3,462	87%	497	13%	51	10%
.75 - 1.25	6,138	3,178	15,849	14,680	93%	1,169	7%	178	15%
1.25 -1.75	1,356	716	3,922	3,691	94%	232	6%	59	26%
> 1.75	509	261	1,743	1,655	95%	87	5%	20	23%
Totals	**9,738**	**4,914**	**25,591**	**23,577**	**92%**	**2,014**	**8%**	**309**	**15%**
Service Intensive									
0 -.25	39	8	145	109	75%	36	25%	0	0%
.25 - .75	1,782	775	4,030	3,388	84%	642	16%	69	11%
.75 - 1.25	6,112	3,160	15,398	13,809	90%	1,589	10%	285	18%
1.25 -1.75	1,257	672	3,650	3,347	92%	304	8%	76	25%
> 1.75	474	243	1,652	1,542	93%	110	7%	24	22%
Totals	**9,664**	**4,859**	**24,875**	**22,195**	**89%**	**2,680**	**11%**	**454**	**17%**
System Intensive									
0 -.25	36	8	139	106	76%	34	24%	0	0%
.25 - .75	1,751	764	3,982	3,390	85%	592	15%	57	10%
.75 - 1.25	6,099	3,153	15,374	13,688	89%	1,686	11%	280	17%
1.25 -1.75	1,284	683	3,692	3,336	90%	356	10%	67	19%
> 1.75	492	252	1,686	1,539	91%	147	9%	26	18%
Totals	**9,662**	**4,861**	**24,872**	**22,058**	**89%**	**2,814**	**11%**	**430**	**15%**
System Additions									
0 -.25	36	8	126	95	75%	32	25%	0	0%
.25 - .75	1,730	758	3,983	3,412	86%	571	14%	34	6%
.75 - 1.25	6,087	3,148	15,581	13,999	90%	1,582	10%	199	13%
1.25 -1.75	1,291	686	3,759	3,452	92%	307	8%	38	12%
> 1.75	500	257	1,772	1,651	93%	121	7%	10	9%
Totals	**9,645**	**4,856**	**25,222**	**22,609**	**90%**	**2,613**	**10%**	**282**	**11%**
System Expansion									
0 -.25	36	8	146	111	76%	35	24%	0	0%
.25 - .75	1,734	759	4,011	3,391	85%	620	15%	60	10%
.75 - 1.25	6,084	3,147	15,536	13,854	89%	1,682	11%	220	13%
1.25 -1.75	1,313	696	3,783	3,435	91%	347	9%	67	19%
> 1.75	497	255	1,714	1,571	92%	143	8%	25	17%
Totals	**9,663**	**4,865**	**25,189**	**22,362**	**89%**	**2,827**	**11%**	**373**	**13%**

Access to jobs

A traveler's ability to reach a variety of destinations within a reasonable travel time is another aspect of mobility and accessibility, this relating to the overall volume of economic opportunity available in the region.

Access to jobs is defined as the total number of jobs available within a threshold travel time, distance or generalized cost of one's residence.

Forecasted travel times, distances or generalized costs will vary according to different transportation strategies and physical improvements. Employment density and location will vary with socioeconomic scenario.

Shared Path 2030 anticipated that greater availability to all jobs within proximity to residential location is a benefit.

Work commute times

A traveler's ability to reach work within a reasonable travel time is also a measure of accessibility, this relating both to choice of mode available and employment location.

Work commute time is determined by an equilibrium assessment of household and job locations available, and the desire by workers to minimize the time, distance and cost of the work trip.

Forecasted travel times, distances or generalized costs will vary according to different transportation strategies and physical improvements. Employment density and location will vary with socioeconomic scenario.

Shared Path 2030 anticipated that shorter work commute times are a benefit.[49]

Evaluation of "Work commute times and Access to jobs"

The following several tables show work commute times and access to job effects by trip purpose for each future regional alternative by geography, race/ethnicity and income level.

Note that measures are reported based on the traveler's "home-base" even though they may have received the benefit of a transportation improvement elsewhere.

By subregional geography and race/ethnicity and income

Table 13 (on the next two pages) combines the geographic, race/ethnicity and income stratifications. A threshold travel time of 60 minutes was selected for these tables.[50]

Table 13: 2030 Work Commute Times and Access to Jobs

	SYSTEM COMMITMENTS			
	Percentage of commutes under 60 minutes		Percentage of jobs reachable within 60 minutes	
District	Highway	Transit	Highway	Transit
CBD	99%	92%	85%	57%
Chicago Balance	98%	90%	74%	44%
Cook County Balance	99%	86%	67%	30%
DuPage County	99%	77%	70%	24%
Kane County	99%	46%	19%	2%
Lake County	98%	24%	21%	9%
McHenry County	98%	32%	4%	1%
Will County	97%	53%	20%	8%
Kendall County	99%	na	7%	na
Region	**98%**	**81%**	**49%**	**27%**
Areas with more than 88% minority population	97%	89%	66%	38%
Areas with average median income less than ½ the regional mean	98%	75%	55%	30%

	SERVICE INTENSIVE			
	Percentage of commutes under 60 minutes		Percentage of jobs reachable within 60 minutes	
	Highway	Transit	Highway	Transit
CBD	99%	94%	88%	65%
Chicago Balance	97%	91%	77%	51%
Cook County Balance	94%	86%	71%	37%
DuPage County	99%	78%	73%	29%
Kane County	99%	44%	22%	2%
Lake County	97%	24%	24%	9%
McHenry County	99%	38%	6%	1%
Will County	95%	41%	23%	11%
Kendall County	99%	na	8%	na
Region	**98%**	**81%**	**52%**	**33%**
Areas with concentration of minority population more than twice the regional mean	95%	89%	70%	45%
Areas with average median income less than ½ the regional mean	97%	76%	58%	35%

	SYSTEM INTENSIVE			
	Percentage of commutes under 60 minutes		Percentage of jobs reachable within 60 minutes	
	Highway	Transit	Highway	Transit
CBD	99%	95%	87%	58%
Chicago Balance	98%	92%	74%	45%
Cook County Balance	99%	85%	72%	35%
DuPage County	99%	77%	78%	31%
Kane County	98%	54%	27%	7%
Lake County	97%	45%	28%	11%
McHenry County	98%	40%	8%	3%
Will County	95%	43%	23%	9%
Kendall County	100%	na	9%	na
Region	98%	80%	53%	31%
Areas with concentration of minority population more than twice the regional mean.	97%	91%	67%	40%
Areas with average median income less than ½ the regional mean	98%	82%	58%	32%

Table 13: 2030 Work Commute Times and Access to Jobs (continued)

	SYSTEM ADDITIONS			
	Percentage of commutes under 60 minutes		Percentage of jobs reachable within 60 minutes	
	Highway	Transit	Highway	Transit
CBD	99%	96%	87%	58%
Chicago Balance	99%	94%	74%	45%
Cook County Balance	99%	89%	73%	36%
DuPage County	99%	81%	80%	33%
Kane County	99%	64%	39%	4%
Lake County	99%	63%	36%	11%
McHenry County	99%	62%	16%	2%
Will County	98%	43%	29%	5%
Kendall County	99%	88%	15%	4%
Region	**99%**	**87%**	**56%**	**31%**
Areas with concentration of minority population more than twice the regional mean.	97%	93%	65%	38%
Areas with average median income less than ½ the regional mean	99%	87%	61%	32%

	SYSTEM EXPANSION			
	Percentage of commutes under 60 minutes		Percentage of jobs reachable within 60 minutes	
	Highway	Transit	Highway	Transit
CBD	99%	97%	85%	57%
Chicago Balance	99%	96%	73%	47%
Cook County Balance	99%	91%	72%	38%
DuPage County	99%	81%	76%	32%
Kane County	99%	58%	25%	5%
Lake County	99%	57%	33%	12%
McHenry County	99%	59%	11%	2%
Will County	97%	54%	29%	9%
Kendall County	99%	na	10%	24%
Region	**99%**	**88%**	**54%**	**32%**
Areas with concentration of minority population more than twice the regional mean.	98%	95%	68%	42%
Areas with average median income less than ½ the regional mean	99%	88%	59%	35%

2.2.4.4 Socioeconomic and land use implications

Shared Path 2030 employed an analysis method that included feedback of transportation costs as a measure of accessibility to reallocate the geographic distribution of households and jobs in the region.

While not a comprehensive reflection of all of the determinants of land use, the method does provide an indicator of how socioeconomic patterns might be affected under each thematic alternative.

For each of the alternative regional scenarios, the regional distribution of households and jobs varied geographically in response to the accessibility offered by transportation alternatives, as shown in Table 14.

The economic benefits of Chicago's CBD notwithstanding, *Shared Path 2030* anticipated that a transportation system which induces a greater number households to locate close to a greater number of jobs indicates a more efficient transportation system.

Table 14: 2030 Socioeconomic and Land Use Implications of Alternative Future Scenarios

System Commitments 2030			
District	**Households**	**Population**	**Employment**
CBD	26,490	42,295	618,014
Chicago Balance	1,069,447	2,829,263	908,385
Cook (w/o Chicago)	995,885	2,636,368	1,862,892
Cook Total	2,091,822	5,507,926	3,389,291
DuPage	368,873	1,017,934	819,391
Kane (w/ Kendall portion)	270,530	760,410	374,314
Lake	329,849	907,908	529,797
McHenry	156,279	431,787	232,738
Will	451,447	1,287,967	493,714
Region	3,668,800	9,913,932	5,839,245

Service Intensive 2030			
District	**Households**	**Population**	**Employment**
CBD	33,291	52,328	807,580
Chicago Balance	1,200,573	3,147,772	967,725
Cook (w/o Chicago)	1,035,355	2,736,989	1,736,434
Cook Total	2,269,219	5,937,089	3,511,739
DuPage	365,418	1,005,791	770,936
Kane (w/ Kendall portion)	237,154	665,666	317,452
Lake	277,851	768,740	424,902
McHenry	125,178	345,312	174,969
Will	392,527	1,119,200	392,421
Region	3,667,347	9,841,798	5,592,419

System Intensive 2030			
District	**Households**	**Population**	**Employment**
CBD	31,104	49,008	794,164
Chicago Balance	1,150,138	3,032,934	1,038,339
Cook (w/o Chicago)	1,040,646	2,752,969	1,715,896
Cook Total	2,221,888	5,834,911	3,548,399
DuPage	370,559	1,020,317	763,398
Kane (w/ Kendall portion)	242,844	681,880	324,320
Lake	285,184	788,944	424,363
McHenry	128,470	354,577	183,110
Will	406,475	1,158,834	392,895
Region	3,655,420	9,839,463	5,636,485

Table 14: 2030 Socioeconomic and Land Use Implications of Alternative Future Scenarios (continued)

System Additions 2030			
District	**Households**	**Population**	**Employment**
CBD	30,150	47,600	649,712
Chicago Balance	1,125,604	2,967,610	911,824
Cook (w/o Chicago)	1,026,481	2,716,053	1,794,776
Cook Total	2,182,235	5,731,263	3,356,312
DuPage	363,078	1,001,252	798,608
Kane (w/ Kendall portion)	253,977	713,448	353,940
Lake	299,793	827,902	457,707
McHenry	141,903	391,672	199,575
Will	405,628	1,156,267	409,954
Region	3,646,614	9,821,804	5,576,096

System Expansion 2030			
District	**Households**	**Population**	**Employment**
CBD	30,214	47,694	782,978
Chicago Balance	1,125,353	2,969,374	912,897
Cook (w/o Chicago)	1,026,969	2,718,182	1,732,422
Cook Total	2,182,536	5,735,250	3,428,297
DuPage	369,250	1,016,959	763,770
Kane (w/ Kendall portion)	233,652	656,057	303,838
Lake	310,234	855,790	473,449
McHenry	127,723	352,592	173,566
Will	429,370	1,223,777	447,835
Region	3,652,765	9,840,425	5,590,755

Note: Population numbers include group quarters populations

CHAPTER 3.0: PLAN RECOMMENDATIONS

The set of future alternative regional scenarios illustrate the land use and transportation effects of four different themes reflecting a broad array of land use, management and operations, system improvement and capital-intensive strategies. It was anticipated that the plan's recommendations would be drawn from each of these alternatives.

The transportation system, mobility and accessibility measures associated with each thematic alternative show, in aggregate, benefits to the region. Non-capital-intensive approaches improve mobility and accessibility by improving the performance of the existing system in established parts of the region. Capital-intensive approaches also improve performance of the existing system, particularly with regard to reduction in traffic congestion as well as providing new transit choices in developing areas. In all cases, community development and effective management and operations strategies can be employed to increase non-motorized tripmaking. The intent of the RTP is to promote the most appropriate and effective strategies, systems and major capital projects from each alternative, combined in such a way to achieve the plan's goal in an efficient and fair manner.

The 2030 RTP includes three types of recommendations:

- Regional transportation strategies
- Strategic regional systems
- Major capital projects

Regional transportation strategies should be applied consistently by all jurisdictions in order to benefit from scale economies as well as to provide efficient, safe and predictable travel choices. Strategic regional systems provide guidance to transportation implementers and operators in preparing their ongoing modal (e.g., arterial, transit, bicycle, pedestrian and freight) programs to improve and expand the region's transportation system. Major capital projects represent the largest discretionary set of recommendations in the RTP. They include large-scale passenger rail and major highway proposals for which detailed alternatives evaluations should be conducted, thorough context-sensitive design and management and operation plans prepared, and reliable funding secured.

In congested areas, the transportation system should provide a rich choice of system elements and strong connections among them. *Shared Path 2030's* task was to develop a balanced multimodal transportation plan. Fortunately, the region has maintained a commitment to this balance for decades. Effective coordination of major highway and transit improvements in particular has established a model for further integration of all forms of travel.

In addition, the RTP recommends that, regardless of the pace at which any regional strategy, strategic system or major capital project develops, the perspectives of multimodal balance and regional socioeconomic equity be maintained. *Shared Path 2030* has sought to demonstrate that maintaining and improving the region's *entire* transportation system is integrally linked to the mobility and accessibility of the region's *entire* population.

The RTP goals, as well as the common themes, identified during *Shared Path 2030* served as the backdrop for developing the RTP's recommendation:

The **RTP goals** are:

- Maintain the integrity of the existing transportation system.
- Improve the transportation system's performance.
- Use transportation to sustain the region's vision and values.

Other common **themes** identified during *Shared Path 2030* public outreach include:

- More and better-integrated public transit.
- Better land use and transportation integration.
- More bicycle and pedestrian options.
- Better services for seniors and people with disabilities.
- Improved freight management.
- Safety, with special reference to pedestrians.
- Improved traffic congestion management.

3.1 REGIONAL TRANSPORTATION STRATEGIES

The future regional scenarios identified two types of regional strategies:

- Community and environmental strategies.

- Transportation management and operations strategies.

While regional strategies cover a larger geography, they are typically deployed in smaller increments, need regular updating and can be abandoned/remedied if necessary. A certain level of policy commitment must be maintained, however, even after the necessary institutions for implementing a strategy are in place. Evolving goals, varied success and uncertain funding can seriously hinder the success of a regional transportation strategy that requires broad implementation to be effective. While the RTP has historically endorsed community planning, environmental protection and sound transportation management, it does not typically allocate a specific amount of the projected transportation revenues to these strategies.[51]

Regional strategies were most intensively evaluated in the service-intensive and system-intensive alternatives evaluation. Increased attention to the relationship between transportation and community development, as well as intensive transportation system management and operation, was found to reduce the overall volume of tripmaking, increase non-motorized trips, have a centralizing effect on land use development and increase transit mode choice.

The RTP provides the necessary institutional commitment to maintaining regional transportation strategies over many years. It also provides a statement of regional intent and provides general guidance, delegating the exact specification of such strategies to

legislative initiatives, intergovernmental agreements, transportation improvement programming (TIP), and local planning, zoning and capital programming efforts.

3.1.1 Community and Environmental Strategies

Community and environmental strategies consist of implementing "context-sensitive" transportation solutions that promote local community quality and enhance the surrounding natural environment. As a regional community planning strategy, the RTP also places special emphasis on "transit-oriented development" patterns (TOD).

Promoting community and environmental strategies supports the RTP's goal to sustain the region's vision and values, specifically with regard to objectives promoting:

- Natural environment
- Economic development
- Social equity
- Community development
- Public health and safety

3.1.1.1 Community strategies

State, county and local governments regularly engage in efforts to define, improve and protect community quality. The level and intensity of this activity is different for each jurisdiction, but often results in spillover effects to surrounding areas.

Most local governments also independently prepare comprehensive plans and nearly all enforce zoning, subdivision and building ordinances in an effort to promote or preserve local objectives. The transportation effects of community development, however, often cross municipal boundaries.

The RTP encourages community development efforts that:

- Employ land use planning, zoning and economic development resources to balance the location of jobs, services and housing within a community to reduce travel distances.

- Arrange land uses in ways that foster efficient[52] and healthy travel behavior.

- Permit development concurrent with anticipated transportation supply.

- Arrange land use to support use of existing transit infrastructure and introduction of new and expanded transit service.

- Plan and design major land uses[53] to allow for convenient and safe access by all travel modes.[54]

- Allocate land use for commercial and industrial development adjacent to major highways.

- Allocate land use for residential development within walking or bicycling distance to local employment centers or public transit.

- Preserve anticipated transportation rights-of-way.[55]

- Resolve potential transportation interaction with official historic, cultural and/or agricultural preservation plans.

For its part, the RTP's strategy is that:

- A variety of transportation choices will be offered to all communities at an appropriate level of service.[56]

- Transportation improvements will be coordinated[57] with community development activities to offer efficient[58] transportation service.

- Transportation improvements should support the functions of existing and planned adjacent land uses.

- Transportation improvements should be designed, managed and operated to encourage compact land development.[59]

- Plans and designs for transportation improvements should be sensitive to community context.[60]

- Transportation improvements should be consistent with official historic, cultural and/or agricultural plans.

Context-sensitive solutions

The RTP recommends sensitivity to the effects transportation facilities have on the environment and communities. New and better ways of designing transportation facilities

are evolving based on growing interest in better integrating these facilities into the communities they serve.

Most communities host transportation facilities that serve a regional function. The process of planning, designing, constructing and improving these facilities should involve early and intensive involvement with community stakeholders to preserve and enhance the human and natural environment in the project area.

Important principles of context-sensitive solutions include[61]:

- Safety for both travelers and the community is paramount.
- Transportation's harmony with the environmental, scenic, aesthetic, historic and natural resource values of the area are as important as improved mobility and accessibility.
- Information resources of all involved parties should be efficiently and effectively used.
- Transportation should minimally disrupt community quality.
- Transportation should be seen as adding lasting value to the community.

Transit-oriented development (TOD)

The RTP also recommends that special emphasis be placed on the land-use principles of "transit-oriented development." TOD is the design and development of land around transit stations and bus stops that encourage people to use public transportation.[62]

The purpose of TOD is to build active and convenient communities that link people to their jobs as well as to commercial, retail and entertainment centers, in addition to reducing the need for multiple, longer-distance trips. Separate TODs connect with each other, contributing to a more vital region overall.

Successful TOD requires a high level of transit service that will accommodate a variety of travel purposes. To sustain a high level of transit service, TOD should provide compact building densities, mixed land uses, adequate (but not excessive) parking, ample quality bicycle storage and comfortable and secure pedestrian accommodations.

The RTP recommends that TOD be pursued in all major capital projects and new transit service. The RTP also encourages communities to embrace TOD principles to support existing transit service and to encourage additional transit investment.

In addition, TOD should foster development in a manner that consistently locates services (retail, medical, social services and recreational) in close proximity to where the elderly and disabled live. Also, facilities that house seniors and people with disabilities, such as assisted living centers, retirement homes and senior housing developments, should be designed in a manner that facilitates the use of public transportation.

3.1.1.2 Environmental strategies

National, state and local environmental protection regulations provide a means for ensuring that negative transportation impacts upon the natural environment are mitigated. The RTP recognizes that maintaining and improving the transportation system provides opportunities to further sustain and improve environmental quality.

Demonstrating that the RTP helps reduce air pollution is a significant federal regulatory obligation. The major capital projects recommended in the 2030 RTP, in a coordinated analysis with the current TIP, must demonstrate that changes in estimated mobile source emissions resulting from transportation improvements conform with a "pollutant budget" established by the Illinois Environmental Protection Agency (IEPA).

In addition, the Northeastern Illinois Planning Commission (NIPC) has established regional policies that recast many environmental protection requirements into opportunities to enhance environmental quality. The RTP embraces NIPC policies intended to:

- Protect natural groundwater recharge.
- Promote effective stormwater management.
- Reduce alteration of natural hydrological patterns.
- Reduce deterioration of water quality.
- Enhance transportation rights-of-way with connections to greenways, trails and open space.
- Promote multimodal access to greenways, land trails and water trails.
- Include natural landscaping.[63]
- Reduce deterioration of habitat quality.

- Help protect threatened and endangered species.

- Promote wetland protection.

- Ensure consistency with official environmental protection and preservation plans.

- Plan, design and construct transportation improvements in accordance with NIPC's model ordinances regarding a) soil erosion and sediment control, b) floodplain management, c) stormwater drainage and detention and d) stream, lake and wetland protection.

3.1.2 Transportation Management and Operations Strategies

Transportation management and operations strategies consist of integrating and coordinating transportation facilities and service to improve transportation system performance.

Introducing new capital- and non-capital-oriented management and operations strategies is supported by the following RTP objectives:

- Maintenance, reconstruction and replacement

- Management and operations

- Transportation and land use interaction

The RTP recommends enhancing implementation of all capital projects by identifying the multimodal corridor to be influenced by a set of associated management and operations

strategies. These strategies are intended to ensure efficient coordination of capital construction, service provision and effects on local development patterns.

3.1.2.1 Maintenance[64] and reconstruction

The RTP's goal of maintaining the integrity of the existing transportation system network asserts an ongoing commitment to keep existing transportation infrastructure in a state of good repair. Most major transportation facilities are completely reconstructed over the course of 20-50 years. Large-scale maintenance and reconstruction of major facilities provides an opportunity to improve not only the transportation function, but also the community presence of transportation infrastructure at a local and regional level.

Maintenance and reconstruction of all transportation facilities should employ management and operations strategies that improve performance with emphasis on improving safety and operations, as well as better integrating these with other transportation facilities and functions.[65] Maintenance and reconstruction projects should also include upgrades to existing infrastructure using new technologies, updated operating procedures and improved materials.

The RTP also provides specific guidance for maintaining and reconstruction major highway and rail facilities.

Major highways

The RTP recommends the following strategies be considered in maintaining and reconstructing major highways.

Auxiliary lanes

Auxiliary lanes are operational improvements that can involve limited lane additions, but do not result in a change in the basic cross-section of the facility.

The RTP supports introducing auxiliary lanes as part of the design for reconstruction projects to accommodate current safety standards and improve traffic operations.

Interchanges

New or reconfigured interchanges can improve regional accessibility as well as performance of both the expressway and local road system.

The RTP supports introducing or modifying interchanges between arterials and major highways to provide safer and more efficient access to the expressway system. These improvements should be fully coordinated with the plans and policies of adjacent and affected jurisdictions.

The RTP supports introducing or modifying interchanges between major highways[66] to manage congestion or facilitate moving large volumes of regional traffic more efficiently.

The RTP also supports introducing interchange management improvements as an efficient way to give priority to preferred classes of vehicles on the entire access-control system.[67]

Intelligent Transportation Systems (ITS)

Extensive deployment of highway-based elements of ITS communications and management strategies can be achieved during major highway maintenance and

reconstruction. In addition, interjurisidictional coordination and information, particularly ITS traffic management centers and rapid response incident management, can be used to maintain regional mobility during major maintenance and reconstruction work.

The RTP supports inclusion of current and anticipated ITS technology[68] as part of highway maintenance and reconstruction projects.

Community Interfaces

Major highway reconstruction provides an opportunity to improve the appearance and character as well as mitigate any negative externalities of a facility from the perspective of the community through which it passes.

The RTP supports coordination with local communities on concerns such as safety, support facilities and right-of-way treatments when preparing for and during maintenance and reconstruction projects.

Rail transit

The RTP identifies the following strategies in maintaining and reconstructing passenger rail facilities.

Track and Signal

Track and signal improvements are critical to efficient train (freight and passenger) operation, allowing for more trains and permitting higher speeds.

The RTP supports including improved track and signal systems during maintenance and reconstruction projects.

Grade Separations

Grade separations can be introduced to overcome conflicts between and among passenger and freight rail operations as well as between rail and highway facilities. New grade separations at key locations will reduce travel time for both rail and highway traffic and improve safety for pedestrians, cyclists, rail and highway travelers.

The RTP supports introducing grade separations at locations where safety and efficiency can benefit. These improvements should be fully coordinated with the plans and policies of adjacent and affected jurisdictions.

Yards

Rail yards may be relocated and/or consolidated to reduce operational conflicts. This includes necessary track relocation as well as additional and reconfigured crossovers. Rail yards may also be expanded and modernized to permit storage of additional trains and requisite maintenance facilities.

The RTP supports improving rail yards in these ways to support improved operations or expanded capacity. These improvements should be fully coordinated with the plans and policies of adjacent and affected jurisdictions.

Intelligent Transportation Systems (ITS)

Extensive deployment of transit-based elements of ITS communications and management strategies can be achieved during major rail maintenance and reconstruction.

The RTP supports inclusion of current ITS technology[69] as part of rail transit maintenance and reconstruction projects.

3.1.2.2 Transportation system safety

The RTP's goal of sustaining the region recognizes the need to promote public safety. This includes not only developing a transportation system that provides for safe and secure travel by all modes, but also making the transportation system an integral part of the overall safety and security of the region.[70]

Federal and state law significantly governs the physical safety of those traveling in vehicles. Vehicle safety is heavily regulated and is the subject of intense public education efforts.[71] Federal requirements also stipulate that the metropolitan transportation planning process consider projects and strategies that increase the safety and security of the transportation system for motorized and non-motorized users.[72]

With regard to highway vehicle safety, most operational improvements to major highways and arterials are intended to increase the ability to operate a vehicle safely. The improved flow of traffic and the removal of possible conflict points, common in many projects, are principally intended to reduce the possibility of crashes.[73]

Promoting the safety of persons who are not in vehicles but are using or adjacent to transportation facilities is also an increasing focus of transportation plans and projects.[74]

The RTP acknowledges the regulated aspects of transportation safety and security and supports additional strategies for developing a safer transportation system, particularly in support of improving awareness and education regarding bicycle and pedestrian safety at the community level. Strategies include:

- Separation[75] of conflicting modes in the design of high-volume access-control facilities.

- Routine accommodation of safe and comfortable pedestrian and bicycle use in arterial facility design.

- Special attention to correcting and avoiding hazards created by vehicular traffic in community settings and on shared-use facilities.

- Special attention to ensuring the safety of children, seniors and persons with disabilities while using or adjacent to transportation facilities.

Many of the RTP's goals can be achieved by a commitment to pursuing the system maintenance strategies recommended in this plan. In terms of placing the proper emphasis on maintenance and reconstruction activities, the RTP recommends that highest priority be given to promoting the physical safety of all persons using and adjacent to the facility being improved.

The design-oriented details of transportation safety are refined through the project programming phases. Many projects intended to increase capacity, reduce congestion or provide alternative travel choices have safety benefits that cannot easily be isolated from the total project cost and benefit.[76] Safety issues are also considered at a local level. In most cases, these local solutions focus on specific problems and are typically not indicative of any systemwide or long-term safety deficiency.

Because safety improvements are heavily regulated and are achieved primarily through rapidly changing technology and design solutions, preparing long-range forecasts of the safety implications of the plan's recommendation is difficult.[77] The RTP recognizes that all major capital and reconstruction projects appearing in this plan will be required to address current safety standards in their design based on individual project studies. In addition to the regulated emphases on vehicle and facility safety, the RTP also recommends pursuing the safety of programs discussed in the following sections.

Safe Routes to School[78]

A key element to meeting the RTP's goal of promoting healthy and active lifestyles is embodied in a national movement promoted as "Safe Routes to School." Community and government officials can work together to make streets safer for pedestrians and bicyclists along school routes, while encouraging both parents and their children to enjoy the health and community benefits of walking and biking.

The overall objective of "Safe Routes to School" programs is to make walking or biking to school a safe and valued activity for children. Transportation management and operations strategies can focus on changes to the pedestrian and bicycle environment to promote safety, such as crosswalks, expanded sidewalks, traffic calming, and bicycle lanes and paths.

The RTP recognizes that these types of management and operations approaches are most effective when combined with enforcement, encouragement and education, and dedicated funding.

Safety for seniors and persons with disabilities

For traveling seniors and persons with disabilities, the effort required to piece together transit services from public and private providers into a complete trip is often a serious challenge. In addition, there is an increasing need for programs to improve driving skills and roadway design toward the special needs of a growing population of seniors.

Strategies to support safe travel for seniors and people with disabilities are supported by RTP goals to improve system performance and sustain the region's visions and values. This goal has special meaning for seniors and people with disabilities who face unique transportation challenges that might otherwise go unnoticed. Given variations in geographic location, income and physical health, the transportation needs of the region's senior and disabled residents vary greatly. Thus, it is appropriate that the RTP promote safety strategies for seniors and persons with disabilities in the course of providing regular transportation improvements and services.

Strategies for improving transportation safety for seniors and persons with disabilities requires particular attention to design details that contribute to their safety.[79] With regard to access to public transportation, transportation providers have established programs for complying with requirements of the Americans with Disabilities Act (ADA), which contributes greatly to improved transportation safety for all persons.

Transit vehicles are subject to specific design requirements that are implemented as older vehicles are replaced. The RTP further recommends that specific attention be given to meeting the accessibility and safety needs of seniors and persons with disabilities in the design and placement of bus shelters. Passenger rail stations present special obstacles to

implementing the ADA requirements. Stations are not replaced as frequently as rail cars or buses, and in most cases were constructed many years ago. Passenger rail providers have developed "key station" plans identifying stations to be retrofitted first.[80] As stations are rebuilt, they are built to ADA accessibility standards.

With regard to implementing specific arterial improvements in support of seniors and persons with disabilities, the RTP recommends that roadway project planning follow expanded design guidelines oriented to the special needs of seniors and persons with disabilities to the extent possible through improvements to roadway geometry[81] and driver information.[82]

In addition, an increasing number of seniors and people with disabilities will no longer feel comfortable or be able to travel by auto or transit. These residents require alternative community designs and options for non-motorized travel modes to maintain personal mobility. In recognition of this, increased accessibility, even if personal mobility becomes a limiting factor, is a key component to a good quality of life. Also important, but rarely acknowledged, is that providing for the independent mobility of seniors and people with disabilities improves the lives of family members or caregivers.

This need will be increasingly evident as the population in need continues to grow. Developing coordinated local transportation systems with an emphasis on meeting special needs is an essential element to ensuring the safety, well-being, mobility and vitality of seniors and people with disabilities.

Shared-use design and pedestrian safety

When programming funds for arterial improvements, special attention should be paid to addressing locations where pedestrian injuries and fatalities frequently occur.

Roadway improvement funds should be devoted to improving pedestrian safety where necessary. In addition, discretionary transportation funds should be directed toward providing a variety of safe and convenient pedestrian options.

Shared-use arterial design should include safe and inviting sidewalks and crosswalks for pedestrians. Other examples include traffic calming techniques, such as curb bulb-outs and traffic circles, to slow down automobiles in key places and allow the streets to be used safely by pedestrians.

3.1.2.3 Rail, highway and intermodal freight

The RTP's goal of sustaining the region recognizes the need to promote economic development. This includes making the efficient movement of commercial goods a priority for ongoing transportation system development.

The flow of commercial goods over the freight transportation system is of intense federal and state interest.[83] Commerce is regulated, and the freight system employs fee and financing methods different from the transportation system at large. In addition, most of the region's freight facilities are privately owned.

This poses unique challenges to fully incorporating freight concerns in the metropolitan planning process. Both public and private sectors engage in freight planning. The public process entails lengthy timelines and extensive public involvement, while the private

process is based on market trends, is limited to business and industry transactions and occurs in a short time frame.[84]

Class I railroads (including Metra), in cooperation with the City of Chicago and the State of Illinois, have prepared a long-range strategic plan to improve the performance of freight infrastructure and coordination of freight rail operations in the region. This plan identifies many public benefits, including reduced conflict with arterial and passenger rail traffic, improved community interfaces with railroad facilities and the potential for greater economic development regionwide.[85]

The RTP supports freight strategies that demonstrate a benefit the region's economic health overall. The strategies embraced, like the RTP's community and environmental strategies, involve consistent and ongoing efforts to improve coordination among freight system owners and operators and those concerned with the economic benefits an efficient freight system can provide. In northeastern Illinois, reconciling and coordinating the strategic plans developed under private business models and by various civic and advocacy groups will require both policy coordination by public agencies as well as an investment in technical planning resources to support improved freight decision-making.

3.1.2.4 Intelligent transportation systems (ITS)

The RTP's goal of improving transportation system performance recognizes the need to enhance the efficiency of traveler decisions and transportation management and operations. Technological advances provide an opportunity to dramatically improve the collection, organization and dissemination of information in support of improved real-time decision-making.

ITS is a collective name for technology enhancements that improve transportation management and information exchange. ITS allows transportation providers to offer an improved range of services and aids travelers in making more informed travel decisions. Improved transportation safety and security is made possible due to real-time monitoring capabilities and faster response to incidents.

The RTP supports the ongoing development and implementation of the region's principal ITS blueprint, the Strategic Early Deployment Plan for Northeastern Illinois (SEDP).[86] The SEDP includes a "Regional Intelligent Transportation Systems (ITS) Architecture," a 15-year guide for transportation technology integration in northeastern Illinois. This "Architecture" is primarily an implementation plan for integrating communications between transportation system managers and operators and is further integrated into implementation of the multi-state Gary-Chicago-Milwaukee ITS corridor.

The regional ITS architecture also contains guidance on enhancing safety and security efforts. This is the product of outreach with emergency response staff from the counties and City of Chicago, including city and county emergency operations centers. Discussions have included how ITS can help emergency responders communicate with transportation implementers to jointly improve system operations, particularly during emergencies.

The RTP's goal of improving the transportation system with ITS supports:

- A system of regional traffic management centers that will coordinate communication and operations for the entire freeway, tollway, arterial and rail transit system. These

traffic management centers serve as "information hubs" for each transportation operator.[87]

- A regional and multi-state communications system that provides real-time travel condition and emergency management information to transportation agencies, emergency response providers and the general public.[88] This includes a communications infrastructure that will provide electronic links to travelers, emergency responders, transportation/emergency response operations centers, roadside equipment and vehicles.[89]

3.1.2.5 Congestion management

The RTP's goal of improving transportation system performance recognizes the need to manage both highway and transit congestion.

The RTP supports the ongoing development and implementation of the region's principal congestion management outline, the Congestion Management System (CMS) for Northeastern Illinois.[90] Specifically, the following CMS elements support the RTP's objective of improving transportation system efficiency.

Transportation demand management (TDM)

TDM strategies reduce the demand for peak-period single-occupant vehicle travel.[91] These strategies are intended to better manage the demand placed on a fixed transportation supply. The strategies are aimed primarily at encouraging alternatives to traveling alone by auto, with emphasis on more efficient travel planning and private vehicle use. The intended benefit is to contribute to reduced congestion and auto

emissions. These strategies are typically voluntary in nature, and often rely on market-based or employer incentives to increase participation.

Transportation system management (TSM)

TSM is the application of construction, operational and institutional techniques to make the most productive and cost-effective use of existing transportation facilities and services. TSM can be applied through the retrofitting of existing facilities, and/or as part of new or reconstructed facilities.

Roadway management systems include traffic operations centers, roadside equipment and in-vehicle systems. Benefits include increased accessibility, improved safety, greater reliability, improved operating conditions for transit and safety vehicles, and reduction of both recurring and non-recurring congestion.

TSM strategies include upgrading technologies on transit vehicles at stations and at management centers. Benefits include improved public information and increased safety.

3.1.2.6 Transit service coordination

The RTP's goal of improving transportation system performance recognizes the need to enhance transit service coordination between and among transit providers.

"User-friendliness" is a critical element to making transit a meaningful choice for travelers. Often, adjustments to service or additional traveler information at key junctions can make transit use more appealing.

The RTP supports the ongoing development and implementation of a regional transit coordination plan.[92] Specifically, the following service coordination elements support the RTP's objective of improving transportation system efficiency:

- Providing real-time transit service information to travelers.
- Enhancing the physical layout of transit stations and transfer links.
- Improving and integrating transit schedules and itineraries.
- Facilitating fare payment and collection, especially for patrons of multiple operators.

3.2 STRATEGIC REGIONAL SYSTEMS

Shared Path 2030 identified modal systems in order to develop specific guidance regarding implementation of particular types of improvements. These include improvements oriented toward arterials, bus transit, trucks and intermodal freight, and bicycle and pedestrian facilities.[93]

Strategic regional systems are organized around particular transportation functions. The RTP has historically allocated a specific amount of the projected revenue stream to the Strategic Regional Arterial and Transit Systems.[94] Applying this approach to the strategic systems currently under consideration exposes a parochialism that *Shared Path 2030* has sought to diminish by more fully integrating arterial, transit, bicycle, pedestrian and commercial goods movement.

The strategic regional systems, as proposed, have significantly overlapping jurisdictions and offer nearly universal integration opportunities. The RTP recommends a single

amount of forecast revenue for use among the strategic regional systems, the fundamental guidance being that the strategies being designed and implemented will improve the performance of a unified multimodal transportation system.

Strategic systems were most intensively evaluated in the system-intensive and system additions alternatives evaluation. Increased attention to transportation system management and operations, intensive expansion of the arterial and bus transit system and limited strategic capital additions to the expressway and passenger rail system were found to increase transit mode choice and contribute to managing traffic congestion.

Multimodal transportation was one of the most enduring topics during *Shared Path 2030* discussions. In addition, the emergence of "context-sensitive" transportation solutions indicates a priority for sharpening and expanding the considerations given to improving existing "shared-use" transportation facilities. The RTP recommends that transportation implementers and providers give priority to ensuring that individual highway and transit programs improve the multimodal integrity of the transportation system as a whole, especially with regard to promoting safety for all travelers using shared-use facilities. Important features of a strong multimodal transportation system include:

- Coordination of service between and among travel modes.

- Project design that promotes "choice" between and among travel modes.

Shared Path 2030 avoided making modal distinctions up to a point in consideration of a unified multimodal approach. The RTP's major capital project recommendations, while

mode-specific, include specific strategy discussions intended to provide implementation guidance to promote choice between and among travel modes.

Ongoing programs to improve and expand the region's arterial system can also benefit from a set of strategic recommendations to be considered when preparing project designs for local consideration. The additional challenge with improving arterials, of course, arises from their use by multiple travel modes and their integral role in anchoring community land use.

The RTP identifies four strategic transportation systems by travel mode:

- Arterial
- Transit
- Bicycle and Pedestrian
- Freight

Making this distinction helps recast the RTP's strategy-driven goals and objectives so that they address the improvement programs developed by traditional transportation implementers and providers. It is important, however, to recognize that the RTP's recommendations for each of these strategic systems are embodied in the principles of a "shared-use" transportation system.

A shared-use facility is one that through construction or design specifically encourages and accommodates safe and efficient use by pedestrians, bicycles, buses, autos and

trucks. While the primary function remains movement of people and goods, shared-use design encourages use by all.[95]

Modern mobility expectations make designing the ideal "shared-use" facility very challenging. Travelers have grown accustomed to having a wide variety of often far-flung destination opportunities from which to choose. Even at compact urban land densities, attention to accommodating all modes in a facility's design can meet this expectation. The challenge is to maintain this level of mobility and accessibility while offering a richer set of travel choices.

Improvements pursued under each of the four strategic regional systems (arterials, transit, bicycle and pedestrian and freight) should subscribe to the following principles of "shared-use" in their design and implementation:[96]

- The purpose of the facility is to move people and goods.
- The safety of pedestrians and bicyclists is as important as the safe accommodation of vehicles.[97]
- Community use requires small-scale design considerations.[98]
- Convenient pedestrian access to buses encourages transit use.[99]
- Offering traffic priority to transit vehicles encourages transit use.
- Accommodating commercial vehicles maintains economic development potential.

These principles also provide an opportunity to achieve the RTP's objective of efficient transportation and land use interaction. The RTP recommends that any planning and design studies contain a strong land use component so that transportation improvements are sensitive to the context of the community they serve and that the land development patterns support the function of the transportation system.

3.2.1 Regional Arterials[100]

The RTP recommends strategies that improve the performance of arterial roads with emphasis on providing congestion relief and better integrating use of the region's entire transportation system.

These strategies are supported by the following RTP objectives:

- Management and operations
- System efficiency
- Economic development
- Community development

The RTP recommends that shared-use principles be applied in maintaining and improving the region's major arterials to the extent practicable. The RTP further encourages the full integration of land use planning, design and control into the assessment of arterial design in rapidly growing or redeveloping areas of the region.

The RTP provides specific guidance to implementers when programming the following types of arterial projects:

- Arterial improvements and capacity expansion
- Arterial extensions, bypasses and major collectors
- New arterial bridges, grade separations and interchanges
- Designated Strategic Regional Arterials (SRAs)

3.2.1.1 Arterial improvements and capacity expansion

For facilities that currently provide regional accessibility, but also provide direct access to existing adjacent land uses, the RTP recommends that the following strategies be considered to maximize the effect of capacity additions:

- Discourage access permits for individual driveways and entrances in favor of providing consolidated entrances or frontage roads.
- Limit introduction of new traffic signals.
- Provide transit accommodation and priority.
- Provide safe and comfortable accommodation for pedestrian and bicycle travel.

3.2.1.2 Arterial extensions, bypasses and major collectors

For facilities that are intended to contribute to regional accessibility, but that will also provide new opportunities for land development, the RTP recommends that the following strategies be considered to maximize the effect of capacity additions:

- Adopt a comprehensive design that coordinates access to individual land uses with the need to optimize the flow of traffic on the new facility.
- Limit introduction of new traffic signals.
- Provide transit accommodation and priority.
- Provide safe and comfortable accommodation for pedestrian and bicycle travel.

3.2.1.3 New arterial bridges, grade separations and interchanges

The RTP recognizes that new or reconstructed arterial structures such as bridges, grade separations and interchanges can be as costly and have right-of-way requirements comparable to some major capital projects. Because of this, new arterial structures often give rise to the type of community and environmental concerns that are associated with major capital investments.

New arterial structures, however, also offer opportunities to improve accessibility to the entire transportation system as well as to serve local land use goals and address environmental concerns. Introducing new arterial structures at strategic locations may stand as a viable alternative to constructing larger and more costly capital facilities.

The RTP supports implementation of new arterial structures identified and programmed by counties and municipalities through sub-area and corridor evaluations.

The RTP supports introducing new arterial structures that are fully coordinated with adjacent and affected jurisdictions. These facilities should provide safe and comfortable accommodation for pedestrian and bicycle travel. Specifically:

- River (or other natural feature) crossings in order to relieve congestion or provide improved accessibility.
- Rail – arterial grade separations in order to reduce conflicts and improve safety.[101]
- Arterial – arterial grade separations in order to improve traffic flow and reduce congestion.
- Bicycle and pedestrian grade separations in order to provide improved pedestrian access and promote safety.
- Expressway and tollway interchanges in order to improve accessibility and support efficient economic development.[102]

3.2.1.4 Designated Strategic Regional Arterials (SRAs)

Multi-year planning and design studies have been completed on the portion of the region's arterial system that was originally designated as a "system of Strategic Regional Arterials (SRA)," part of the 2010 Transportation System Development Plan for Northeastern Illinois.[103]

The SRA Design Concept Report,[104] originally prepared to guide the multi-year SRA studies, may now be augmented with specific recommendations as endorsed by the City of Chicago and the Councils of Mayors. The specific recommendations appear in the final edition of each study report.[105]

Each of these studies was conducted with the participation of state, regional and local agencies, overseen by a steering committee comprised of government and citizen members, with most of the recommendations being approved by local government resolution.

This process has helped establish a consistent and logical connection for programming arterial improvements based on sound and participatory planning principles.

These studies provided valuable guidance for improving the individual facilities themselves, but also created a large local literature of arterial concepts that can now be transferred to other appropriate arterial settings.

New segments for study

A legacy of these original SRA designations is this "pre-phase one" planning and design study of the route that includes local community involvement.

As the region grows, counties and communities continue to request that these important studies be conducted. Discussion of the merits of such studies originates with the city of Chicago, the counties and/or appropriate Council(s) of Mayors.

During *Shared Path 2030,* a number of new sections were proposed as additions to the designated SRA system. These are shown on Figure 13. Some of these are already under study, others should be further evaluated in their subregional context before proceeding with detailed evaluations.[106]

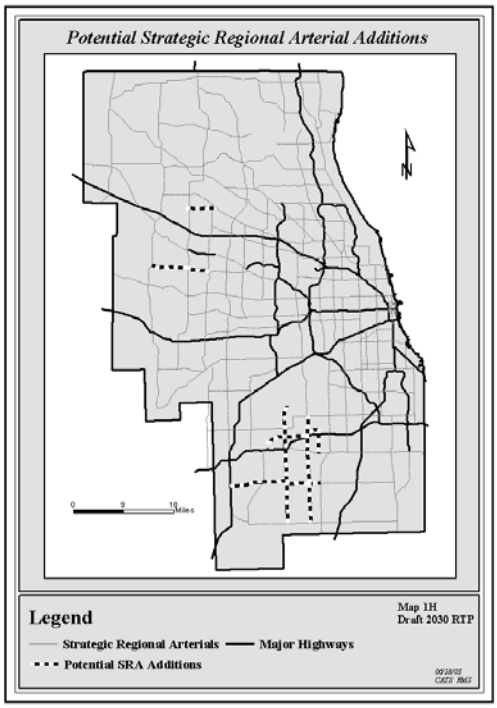
The RTP recommends that preliminary evaluations be conducted to determine the potential for these routes to be developed in close accordance to the RTP's regional strategies and shared-use principles. The evaluations may be prepared in the context of sub-regional (e.g., county) transportation plan or as a corridor study of one or more individual routes. This provides an opportunity to integrate the land use plans and transportation improvements in the fashion outlined in *Shared Path 2030's* representation of "regional boulevards." Regional boulevards were conceptually evaluated in the "System Expansion" alternative as arterials designed to a high standard of shared-use in support of strong community development strategies.

The preliminary evaluations should identify the regional land use and transportation planning significance of the route, level of support for intensively managed growth and transportation strategies in the area and a general inventory of community and environmental concerns along the route.

These evaluations can serve as the basis for proceeding with the "pre-phase one" engineering analyses, right-of-way studies, community planning and environmental evaluations associated the original set of SRA studies.

Potential SRA Additions

Figure 13: Potential SRA Additions



Potential SRA additions proposed during *Shared Path 2030* include:

- Longmeadow Parkway from IL62 to Randall Road, including a new bridge over the Fox River.
- Stearns Road from Dunham Road to IL47 in Kane County, including a new bridge over the Fox River.
- Gougar Road from Wilmington/Peotone Road to the proposed I-355 extension in Will County.
- Arsenal/Manhattan Road from I-55 to US45 in Will County.[107]
- Schoolhouse Road from Manhattan/Monee Road to Peotone Road in Will County.
- US6/Wolf Road from Collins Road to Wolf Road and 159th Street to 187th Street in Will County.

Officially adding a proposed route to the region's SRA system would follow completion of studies explicating the route's regional significance, preparation of facility and corridor plans, and endorsement by the appropriate county and/or Council(s) of Mayors.

Throughout the evaluation and study process, early and continuous involvement of affected communities should be pursued consistent with the RTP's support for principles of "context-sensitive solutions."

3.2.2 Regional Transit[108]

The RTP supports transportation strategies that improve the performance of existing transit services and better integrate use of the public transit system.

This is supported by the following RTP objectives:

- Management and operations
- System efficiency
- Economic development
- Community development
- Social equity

The RTP recommends these strategic improvements to the region's transit system:

- Traffic signal priority systems for transit vehicles regionwide.

- Additional service on existing bus and rail routes, particularly oriented toward off-peak and reverse commute travel.

- Additional transfer capacity and improved coordination at connection points with high demand.

- Additional park-and-ride facilities to encourage increased transit use.

- New bus and paratransit services that provide public transit service to currently unserved areas.

- Bus routes with limited stops that run longer distances.[109]

- Community circulators that allow an alternative to short auto trips.

- Short rail extensions and additional sidings intended to improve the efficiency of existing rail operations.

The RTP recognizes that additional high-quality bus service has the potential to be a cost-effective way to increase the transit options available regionwide.

Extensive bus route systems are proposed in a number of local, subregional and transit operator plans and programs. The system-intensive alternative included the service levels indicated by proposals for a network of express routes (i.e., limited-stop) serving the City of Chicago and the Pace *Vision 2020* expanded regional network of local, feeder and express bus routes.

3.2.3 Pedestrian and Bicycle

Bicycle and pedestrian transportation strategies that encourage non-motorized travel and improve the quality of walking and biking trips are integral to successful shared-use design.

These are supported by the following RTP objectives:

- Mobility and accessibility
- Community development
- System efficiency
- Economic development
- Public health and safety

The RTP acknowledges federal guidance to give due consideration to bicycle and pedestrian facilities improvements when improving or constructing transportation facilities.[110]

Non-motorized travel makes up a significant portion of overall travel demand, both in terms of a singular mode choice and as a means for reaching transit and carpool modes. In addition, non-motorized travel is often the preferred means of travel for children, seniors and persons with disabilities.

The RTP recommends strategic improvements to shared-use facilities that foster “routine accommodation” of pedestrian and bicycle design in all transportation projects and

services.[111] This includes pursuing improvements that support bicycle and pedestrian access to transit and providing bicycle and pedestrian travel information and promotion as part of larger management and operation strategies applied to the entire transportation system.

The RTP also acknowledges NIPC's *Regional Greenways Plan*[112] and the comprehensive regional bicycle and pedestrian planning process currently underway, called *Soles and Spokes,* which includes a regional inventory of county and local pedestrian and bicycle plans and strategies. The RTP anticipates *Soles and Spokes'* contribution to regional mobility and accessibility through additional strategic guidance in support of routine accommodation, shared use and dedicated bicycle and pedestrian facilities.

The RTP recommends that project implementers should consider a facility's potential use by bicycle and pedestrian travelers and make appropriate design accommodations. It should be noted that while design guidelines oriented to motor vehicles at times conflict with the needs of pedestrians and bicyclists, traditional design guidelines do not always indicate required practice.

3.2.4 Regional Freight

Regional transportation strategies improve the performance of existing freight operations with emphasis on streamlining intermodal transfers and commercial goods delivery.

By providing multimodal transportation options to more industrial and commercial businesses, the economic benefits to the region from its position as the nation's freight transportation hub can be realized.

Strategic freight improvements are supported by the following RTP objectives:

- Maintenance, reconstruction and replacement
- Management and operations
- System efficiency
- Transportation and land use interaction
- Commercial goods movement
- Public health[113]
- Economic development
- Social equity

Development of improved administrative and information management protocols should also be pursued. New public policy to encourage comprehensive intermodal freight practices should also promote improved asset and real estate management practices by and among freight system stakeholders. This includes regular participation in multi-state planning and management endeavors.[114]

The following strategies may be achieved through the provision of new capital assets, along with the modernization and improved utilization of existing assets.

- Coordinate freight rail operations with commuter rail service and infrastructure projects.[115] This includes providing additional capacity on new or restored rail

sections to permit additional train movement with modernized train control systems that permit bi-directional operation.

- Reduce rail/highway grade crossings conflicts by providing grade separations and at-grade safety improvements.[116]

- Mitigate negative community effects caused by train noise and blocked crossings.

- Establish highway system truck priorities during highway maintenance, reconstruction and expansion projects or to address freight congestion regionwide.[117] This includes identifying and designating corridors for truck-specific treatments aimed at improving safety and efficiency of commercial goods movement.

- Correct severe bottlenecks in locations that impede freight mobility and cause inefficient routing. This includes mitigating inefficiencies caused by vehicle weight restrictions and viaduct clearance limitations in locations requiring truck access.

- Promote continued improvement of "intermodal connector" facilities.[118]

- Provide "freight-friendly" installations such as truck-only electronic toll collection, pre-clearance and credentialling, information and advisory systems, and truck storage lanes that improve operations safety.

In addition, the RTP supports implementation of the freight rail plan developed by the Association of American Railroads and supported by the State of Illinois and the City of Chicago. This comprehensive plan will improve the efficiency and safety of rail

operations in the region by providing additional rail capacity, upgrading technologies and removing key rail/rail and rail/highway conflicts.

3.3 MAJOR CAPITAL PROJECTS

The RTP anticipates that the coming decades will bring a call for new and expanded major transportation facilities to direct and sustain growth and development. Along with the above slate of regional transportation strategies, the RTP recommends specific major capital projects; identifying their regional benefit as well as challenges they may encounter in addressing the RTP's goals. All of the major capital proposals recommended in the RTP have the potential to benefit the region in the broadest possible sense, provided they are thoughtfully designed and built with great care.

Historically, the region has grown concentrically. Undeveloped land at the margins of established cities and villages is often most appealing in the real-estate market because of its typically lower price and less complicated development process. At the urban boundary, there is a prevailing confidence that problems associated with rapid growth can be avoided. Regional concerns over the sustainability of the natural environment, the health of existing communities, and the efficiency and equity of public works investments all find standing in discussions over the implications of expanding major transportation facilities into developing parts of the region.

The RTP recognizes that providing transportation improvements in mature areas of the region is complicated by the need to mitigate potential effects on established communities. Likewise, the RTP also recognizes the transportation opportunities and risks posed by anticipating new development at the edges of the region. In addition,

while the entire region benefits from the economic health brought about by reinvestment in mature areas as well as growth in new areas, carefully planned and implemented transportation improvements play a critical role in establishing a desirable regional growth pattern.

The RTP also recognizes that investment in major capital projects is an indicator of the region's commitment to continued economic growth. Maintaining the region's pre-eminence as a national surface transportation hub necessitates accommodating local, regional and interregional travel.

Questions over the efficacy of a particular new major capital project often arises in resolving the need to provide increased mobility and accessibility while simultaneously respecting community and environmental objectives. This engenders a responsibility to seek creative, thoughtful and sustainable project design and management solutions.

The centerpiece of the RTP has traditionally taken the form of a map of major capital transportation projects recommended to proceed toward implementation.[119]

These include:

- New limited-access highway facilities
- Lanes added to existing limited-access highway facilities
- New bus rapid transit

- New rail transit

- Capacity added to existing rail transit (including service upgrades, track additions and extensions)

Capital additions were most intensively evaluated in the system additions and system expansion alternatives evaluation. In these alternatives, increased attention to community development strategies and intensive transportation system management and operations contributed to the performance of many new transportation corridors. Alternatives focusing on major capital projects were also found to increase transit mode choice and contribute to managing traffic congestion.

3.3.1 Arriving at Major Capital Recommendations

Major capital project recommendations offer the opportunity to support each of the RTP goals:

- Maintain the integrity of the existing transportation system

- Improve transportation system performance

- Use transportation to sustain the region's vision and values

Major capital projects can be instrumental in maintaining the integrity of the transportation system by reconstructing and redesigning existing infrastructure to improve safe management and operation and accommodate changing mobility patterns. Major capital projects can also improve transportation system performance through increased efficiency, improved accessibility and added capacity to accommodate growth.

Finally, implementing major capital projects provides the opportunity to promote larger urban development goals, including economic and community development, social equity and environmental quality.

A major capital project recommendation's appearance in the RTP was based on consensus that discerned the following about each project:

- Building the project can improve the performance of the transportation system.
- There is a commitment to steady progress toward implementing the project in support of the plan's goals and objectives.
- The project enjoys support among *Shared Path 2030* participants and the public.
- Consensus regarding solutions to identified project concerns can be reached through further evaluation, study and discussion.

The strength of this consensus, along with each project's individual planning status, played a role in identifying the implementation category for each major capital recommendation.

3.3.1.1 Improved transportation system performance

To justify a major capital project recommendation, *Shared Path 2030* sought to demonstrate that each proposal could help improve:

- Mobility-accessibility benefits to travelers
- Transportation system performance

The benefits of proposals under consideration were identified in terms of their performance as part of one of the thematic alternatives. *Shared Path 2030* recognized that the performance of any one project is linked not only to its own design, management and operations, but also its integration with other transportation improvements in the region.

The RTP anticipates that any major capital project can further enhance its performance by augmenting the project proposal with community development or multimodal management and operations features (e.g., a proposed new expressway augmented with transit priority, a proposed new rail line augmented with transit-oriented development).

Shared Path 2030 sought to diminish a selection approach that focuses on single project[120] merits in favor of trying to demonstrate that a project is consistent with a desired theme of transportation improvements. Nonetheless, the analysis of the future regional alternatives organized around these themes can be decomposed to provide project level information which might be useful in prioritizing the costs/benefits of a particular project.

To this end, for capital proposals for which sufficient data existed, preliminary demand and cost data were compared and in some cases refined by project champions for inclusion in the appropriate alternative.

3.3.1.2 Implementation Progress

Each RTP recommendation has a different implementation timetable and rate of progress. In addition to indicating the status of long-standing RTP projects, identifying projects

that have made steady progress toward implementation (e.g. corridor planning, market analysis, environmental evaluations, etc.) provided valuable information to subsequent plan update efforts.[121]

3.3.1.3 Broad support

To gain broad support for the major capital projects, *Shared Path 2030* sought to:

- Balance capital investment among all modes.
- Balance mobility and accessibility benefits among all racial and economic groups.
- Provide transportation improvements to all parts of the region.
- Include discussion regarding the need to mitigate potential negative environmental and community impacts.

Shared Path 2030 purposefully assimilated modal, geographic and social preferences to arrive at a consensus on plan recommendations. While, as a region, we have significant transportation resources at our disposal, we also have a very large and diverse constituency. Despite the magnitude of these resources, there is agreement that forecast revenues will not be sufficient to meet all needs and provide optimum benefits. A technical evaluation of the benefits provided by transportation projects is useful, but ultimately it cannot resolve questions of fairness and equity. In the past, a consensus of recommendations has been established that reflects our willingness to share.

3.3.1.4 Building consensus

To resolve particulars of project design and implementation in order to increase broad support, the RTP recommends that project implementers:

- Identify and work toward mitigating the disruption to communities and the environment that may accompany project implementation. This may be accomplished through early and full attention to context-sensitive solutions available for preserving and improving community quality.[122]

- Design, implement, manage and operate projects as integral parts of a multimodal transportation system.

In a dense urban area, nearly all major project proposals are able to forecast some benefit to travelers and transportation system performance. Similarly, nearly all projects will change the socioeconomic and environmental conditions in their immediate vicinity.

Many major project proposals are met with concern that inadequate planning may result in the project contributing to degraded community life, environmental harm or new mobility and accessibility problems. By elaborating these concerns, the RTP acknowledges that some transportation projects do, indeed, bring about dramatic changes. The plan also acknowledges, however, that growth is inevitable and that it is the RTP's intent to manage growth to benefit all.

3.3.2 Major capital recommendations

The RTP recommends that in conducting all major capital project alternatives analyses and design and management studies, the following strategies be addressed:

- The project should be designed, managed and operated to encourage redevelopment in established urban areas and to engender compact and contiguous land use in newly developed areas.

- The project should support the functions of adjacent land uses.

- The project should employ context-sensitive solutions.[123]

- The project should minimize adverse impacts on environmentally sensitive areas.[124]

- The project design should include, where possible, greenways and open space connections within or adjacent to rights-of-way.[125]

- The project should provide natural scenic enjoyment for travelers and be coordinated with access to the regional greenways and water trails.

- The project should include landscaping to enhance biodiversity, improve water quality and better manage stormwater.

- The project should be designed and constructed in accordance with NIPC's model ordinances regarding a) soil erosion and sediment control, b) floodplain management, c) stormwater drainage and detention and d) stream, lake and wetland protection.

- Intergovernmental agreements should be pursued to promote and ensure consistent land resource, environmental and transportation standards between and among local governments, regional agencies and project implementers.

The RTP further recommends that consideration and design for corridor-wide, multimodal transportation management and operations be included in all stages of traditional capital project implementation.[126]

Project planning and design studies may commence or continue on all major capital recommendations appearing in the RTP. In addition to employing the RTP's goals, objectives and strategies to clarify the proposal's purpose and need, these project studies should include alternative proposals that might meet the same purpose, attain similar service and operational objectives, offer alternative project designs and address community and environmental concerns. Regional consensus on project alternatives that meet these criteria may be considered consistent with the RTP's major capital recommendations. These studies often continue for many years, making them valuable contributions to subsequent consideration of the proposal in updates to the RTP.[127]

Thus, while the major capital projects listed here enumerate *Shared Path 2030's* recommendations at present, they also represent a commitment to investigate and pursue effective alternatives, improved designs and interim improvements that meet long-term goals.

For clarity, *Shared Path 2030* organized major capital project recommendations in to three categories:

- Chicago Transit Hub

- Adding capacity to existing transportation facilities

- Expanding the transportation system to manage growth and change

3.3.2.1 Chicago Transit Hub

The RTP's goal of using transportation to sustain the region's economic health includes specific direction to promote transportation proposals that improve transportation service to Chicago's Central Area.

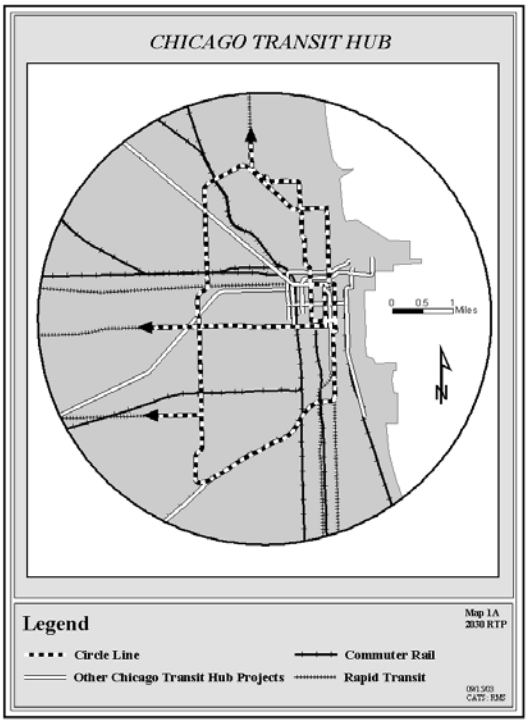
Major proposals for improving circulation and regional transit connections in the Chicago Central Area are grouped to define a "transit hub" that builds on the immense transit infrastructure investment already in place and recognizes the need to improve transit circulation, connections and coordination at the region's core.

These proposals are consistent with the Chicago Central Area Plan[128] objective to "make transit the first choice for people coming to the Central Area."

Figures 14-18 describe and illustrate each of the capital project recommendations for the Chicago Transit Hub.

Circle Line

Figure 14: Circle Line



The Circle Line is composed of new strategic links to Chicago's "L" rapid transit system that will allow more direct connections between most rapid transit and commuter rail lines. These new links are located about 2 to 3 miles from the Chicago Central Business District (CBD). The Circle Line will also allow significant service and operational improvements.

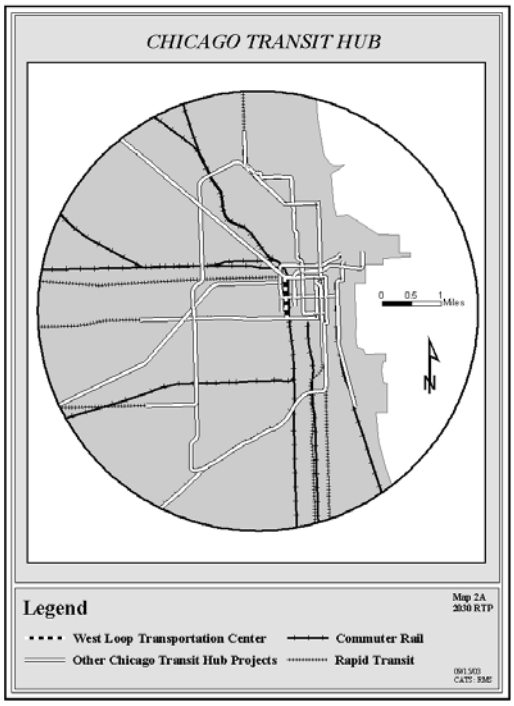
The project will significantly increase transit access to employment centers in Chicago's expanded central area. It will also allow for new transit-oriented commercial, retail and residential development to be concentrated along the existing, but underutilized, urban infrastructure. The project is expected to significantly decrease transit travel time between the Central Area, city neighborhoods and suburban communities throughout the region. The Circle Line connects to 6 CTA rail lines, 12 Metra rail lines and 20 CTA bus routes.

The proposal is divided into three phases. Phase I, already underway, restores a section of elevated structure connecting Lake Street and Congress. Phase II involves constructing a new south link between the Douglas Branch and the Orange Line. Phase III involves constructing a new north link between Lake Street and the Red Line. Implementing each of these phases is accompanied by itinerary changes on existing rapid transit lines serving the CBD.

The service crosses the South, Main, and North Branches of the Chicago River, though no construction activity is expected across the Main Branch. The project also crosses Washington and Warren Boulevards, part of the Chicago Historic Boulevard System; the boulevards could be enhanced by the project at these locations.

West Loop Transportation Center

Figure 15: West Loop Transportation Center



The West Loop Transportation Center introduces a subway under Clinton Street between the Eisenhower Expressway and Lake Street in Chicago. This link provides a fourth leg in a Blue Line subway loop beneath Clinton, Lake Street, Dearborn Street and Congress and allows new transit access to Chicago Union Station providing improved rapid transit, commuter rail and intercity train operations at this location.

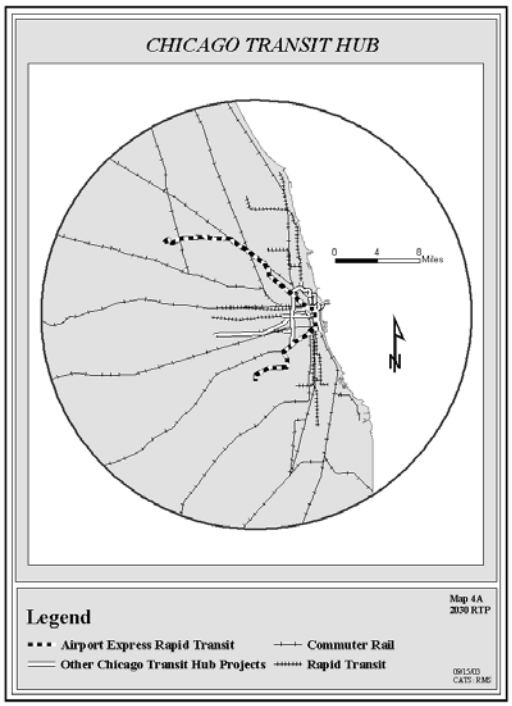
The project, recommended in Chicago's Central Area Plan, will incorporate three levels designed to accommodate and facilitate easy transfers between inter-city rail, commuter rail, and CTA bus and rail services.

The upper level will serve the routes of the proposed Central Area Bus Rapid Transit System with destinations in the North Michigan Avenue Area, River North, McCormick Place, and the eastern part of the Loop. The middle level will serve a new rapid transit link to the West Side and Northwest Side Blue Line routes forming a new outer rapid transit loop. The lower level will provide two through tracks for either commuter rail or intercity services, addressing the long-term need for increased capacity at Union Station and Ogilvie Center.

The West Loop Transportation Center responds to growth in the West Loop Area and will provide services needed to maintain the vitality and growth of Chicago's downtown. The project also addresses the need for improved circulation of passengers from major commuter and intercity rail services in the West Loop to other parts of Chicago's Central Area.

O'Hare and Midway Airport Express Rapid Transit

Figure 16: O'Hare and Midway Airport Express Rapid Transit



Airport Express Rapid Transit provides a limited stop service along CTA's Blue Line and Orange Line, providing fast, direct service between O'Hare and Midway airports and Chicago's CBD.

This project will connect Chicago's Central Area with both O'Hare and Midway Airports. The service will eventually include a new downtown terminal providing passengers with boarding passes and baggage check-in. New vehicles will be specially designed for airline passengers and will feature spacious seating, outlets for laptop computers, and space for carry-on luggage. Video monitors will provide travel information.

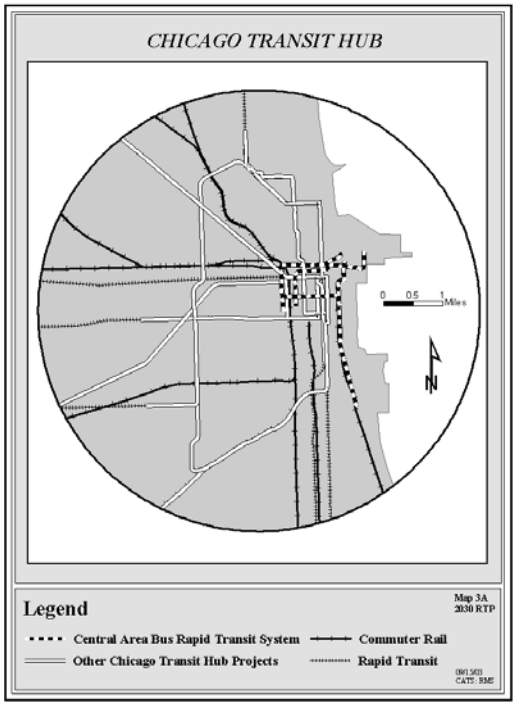
New tracks will be constructed on the existing CTA Blue and Orange Line to allow the express trains to bypass local service, thereby reducing travel times by up to 16 minutes to O'Hare and by up to 7 minutes to Midway Airport.

The project addresses the need to maintain a reliable transportation connection from downtown to both airports. Increased traffic makes the expressways less reliable for airport travelers. Improving the transit connection to the airports will have a positive impact on Chicago's economy.

The service crosses the Des Plaines River, the Chicago River, and some Cook County forest preserves, such as Schiller Woods, but construction activities are not projected at these locations to implement the service.

Central Area Bus Rapid Transit System

Figure 17: Central Area Bus Rapid Transit System



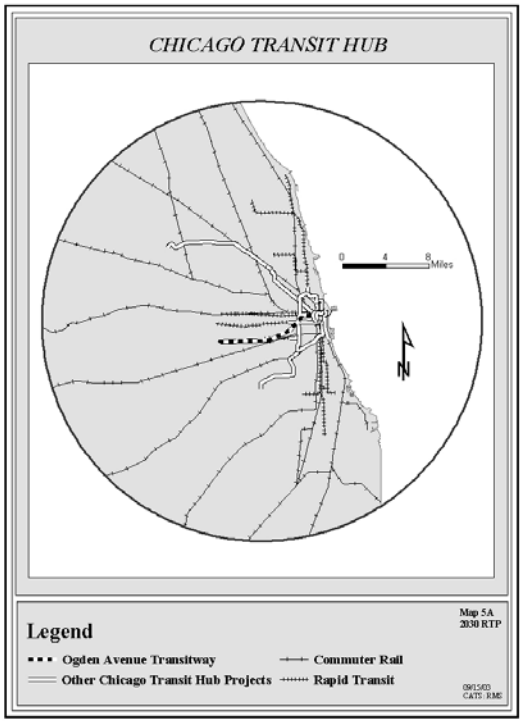
The Central Area Bus Rapid Transit System consists of several components providing improved transit circulation in downtown Chicago utilizing an emerging transit mode called "bus rapid transit," in which specially designed bus vehicles offer priority transit service on arterial streets or dedicated rights-of-way with rapid boarding and alighting.

The project consists of a new bus system designed to circulate passengers around downtown and distribute commuters from major transit centers to destinations throughout the Central Area. Routes will connect the West Loop Area with North Michigan Avenue, the eastern Loop, Illinois Center, the Museum Campus and McCormick Place. A new east-west busway could be either at-grade or below street level. A north-south route between North Michigan Avenue and McCormick Place will use the recently opened Lakefront Busway.

The system will include features designed to make transit reliable and attractive, including exclusive busways and priority lanes on city streets. Vehicles designed especially for the service will feature low floors for easier boarding and alighting, a new fare system, and comfortable interiors. New bus shelters, street landscaping, and other amenities and design features will contribute to the overall attractiveness of the service. The Bus Rapid Transit System will enhance the Central Area as a place for business, shopping, entertainment and culture, and allow for projected growth in development.

Ogden AvenueTransitway

Figure 18: Ogden AvenueTransitway



This transit corridor extends from North Riverside Park Shopping Center to Chicago's Central Area. The line would operate in priority lanes on surface streets or dedicated right-of-way and would employ a variety of new techniques and technologies to speed service.

The initial proposal includes the possibility of new or historically styled streetcar rail service, light rail, state-of-the art bus rapid transit, or other fixed guideway design alternatives.

This project is expected to increase accessibility and reduce travel time for residents of the West Side and nearby suburbs to the Central Area and other major activity centers, relieve traffic congestion on major arterial streets and improve access to suburban jobs and activities. A primary emphasis of the service would be local access, rather than regional connectivity. The project would thus promote economic development in areas with social and economic diversity. The new service will support community reinvestment and encourage environmentally sustainable development.

Service would be studied from North Riverside Park Shopping Center to the proposed West Loop Transportation Center at Clinton Street. Connections to the proposed Central Area Bus Rapid Transit System would be made at that location. The line would connect to 2 CTA Rail lines, 18 CTA bus routes, and 7 Pace bus routes, and Metra services terminating in the West Loop. Service coordination would be necessary with the 54/Cermak rapid transit service now being rehabilitated.

The service traverses many pedestrian-oriented communities. Pedestrian access to the service should be emphasized.

The project crosses Douglas Park and the Historic Chicago Boulevard network.

This proposal is also being evaluated in the Cook/DuPage multimodal corridor study.

3.3.2.2 Improvements to existing facilities

The RTP's goal of maintaining and improving the existing transportation system recognizes the need to promote transportation proposals that improve the performance of existing transportation facilities, preserve the level of service offered by the existing transportation system and provide improved transportation system management.

Changes in travel behavior place new demands on existing facilities that may not have been anticipated. In many cases, growth in travel is occurring along existing transportation facilities. Part of this growth can be accommodated by increased multimodal capacity along these established transportation corridors.

In all facility improvements, opportunities to improve management and operations should be intensively pursued, particularly through technological advances.

Passenger rail upgrades and extensions

Improving and extending service on the region's rapid transit and commuter rail system serves travelers throughout the region. The region's passenger rail transit system has helped define the focus of commercial and employment location in northeastern Illinois. The passenger rail system also provides access to these centers from many stations in the region.

Passenger rail upgrades and extensions support increased accessibility to the region's centers with the added advantage that, regionwide, residential and commercial growth or redevelopment is naturally encouraged around rail stations. Upgrades and extensions can

also be used to enhance operations by providing additional flexibility or eliminating bottlenecks.

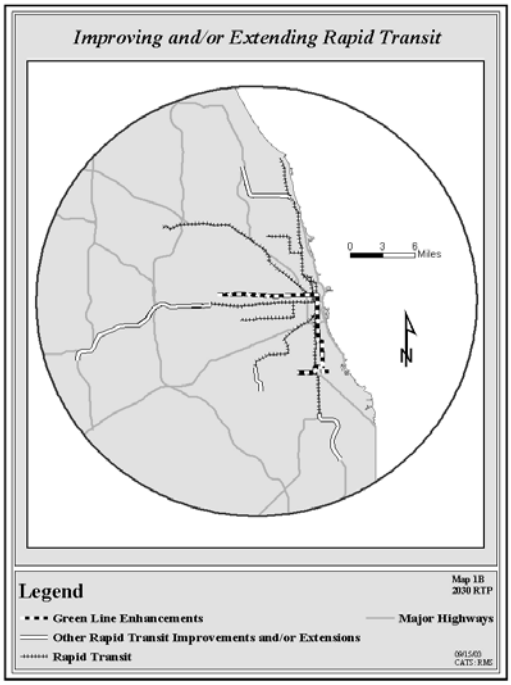
Improving and extending the region's rail transit system is important to ensure that our investment continues to serve the changing needs of the region's travelers.

Rapid transit

Figures 19-23 show projects related to improvements on the CTA Green, Orange, Yellow, Blue and Red rapid transit lines.

Green Line Enhancements

Figure 19: Green Line Enhancements



The Green Line, a rapid transit line serving Oak Park and Chicago's CBD, west and south sides was largely reconstructed during the 1990s. In order to permit higher train speeds and reduce in-vehicle times, the number of stations on the Green Line was limited in the new design.

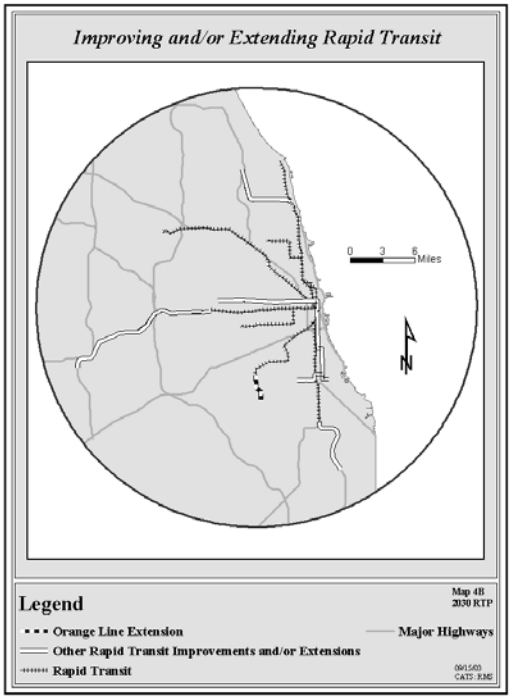
In order to provide more direct neighborhood access to the Green Line and to establish new opportunities for transit-oriented development, this proposal includes increasing the number of stations on the Green Line while maintaining or improving transit service levels.

This proposal should be included in evaluations conducted for other plan recommendations in the southern Chicago and the south suburbs multimodal corridor.

The project is adjacent to locations on the North Branch and South Branches of the Chicago River in the Loop area. The Green Line also crosses several of Chicago's historic boulevards.

Orange Line Extension

Figure 20: Orange Line Extension



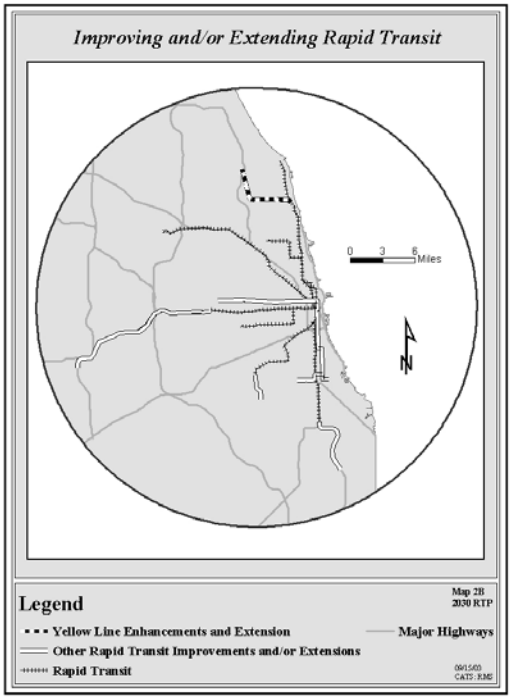
The Orange Line, a rapid transit line serving Chicago's CBD, southwest side and Midway Airport, was completed during the 1990s.

In order to provide additional access to retail and employment opportunities, this proposal involves extending the Orange Line from the current terminus at Midway Airport to a new terminal in the vicinity of the Ford City Shopping Center.

This project completes the original Orange Line plan to provide improved access to downtown from the Far Southwest Side and from the central city to the strong employment corridor along South Cicero Avenue. The line will also provide easier access to hotels and residential areas south of Midway Airport. The project will connect to 11 CTA bus routes and 6 Pace bus routes. A new park-and-ride lot at Ford City will address constraints at the CTA lot at Midway Airport. Safety will be enhanced from planned elimination of two freight rail grade crossings.

Yellow Line Enhancements and Extension

Figure 21: Yellow Line Enhancements and Extension



The Yellow Line is a rapid transit line providing express service between the Red Line terminal at Howard Street and the Dempster Street station in Skokie.

In order to provide more direct neighborhood access to the Yellow Line and to establish new opportunities for transit-oriented development, this proposal includes increasing the number of stations on the Yellow Line while maintaining or improving transit service levels.

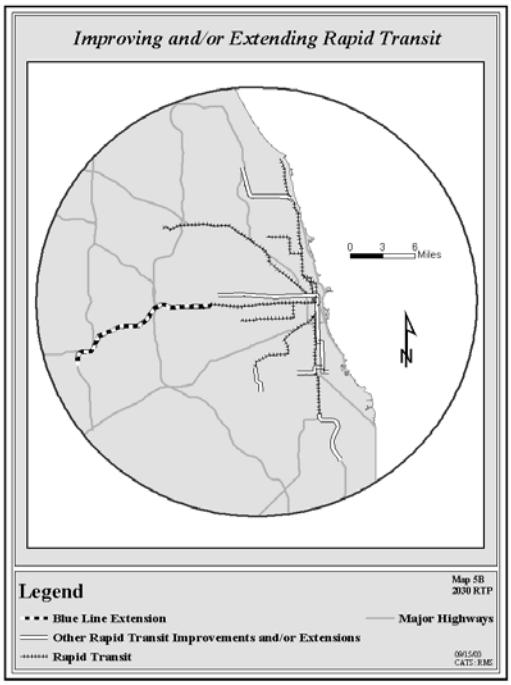
In order to provide additional access to retail and employment opportunities, this proposal also includes extending the Yellow Line from the current terminus to a new terminal in the vicinity of the Old Orchard Shopping Center.

By extending the line north to Old Orchard Mall and providing an infill station at Oakton, this project will provide new opportunities for reverse-commute transit travel to retail shopping and jobs. Also, the project will enhance prospects for significant transit-oriented infill development in the Village of Skokie. Connections can be made to 2 CTA bus routes and 9 Pace bus routes.

The project terminus is adjacent to Harms Woods, a property of the Forest Preserve District of Cook County.

Blue Line West Extension

Figure 22: Blue Line West Extension



The Blue Line Congress branch is a rapid transit line providing service between Chicago's CBD and Forest Park in central Cook County.

In order to provide additional transit choices for travelers, relieve congestion, and establish new opportunities for transit-oriented development, this proposal includes extending this branch of the Blue Line further west along or near I-290 and I-88.

The proposal extends as far as Lisle, an additional distance of approximately 20 miles. An initial strategic extension to Oak Brook may take advantage of existing development patterns, while the remainder should be accompanied by aggressive transit-oriented development.

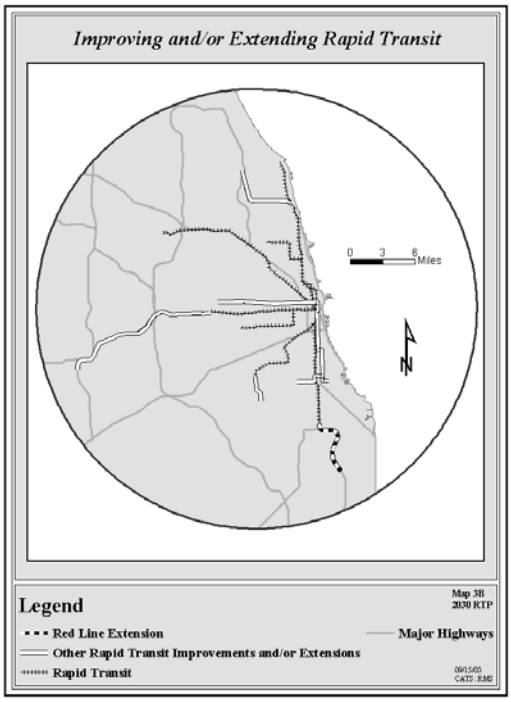
In addition, the portion of the extension west of Oak Brook overlaps a portion of the DuPage "J-Line" proposal. This possible duplication could be resolved during further corridor evaluations. Viewed another way, the "J-Line" and other bus transit and high-occupancy vehicle proposals could establish or demonstrate a market sufficient to justify a heavy or light rail investment along this route in the future.

This proposal is also being evaluated in the Cook/DuPage multimodal corridor study.

The project crosses the Des Plaines River in Cook County and Salt Creek in DuPage County. The project is adjacent to York Woods and Fullersburg Woods at Salt Creek, properties of the Forest Preserve District of DuPage County. The project may also abut Morton Arboretum in Lisle, which contains threatened and endangered species communities.

Red Line Extension

Figure 23: Red Line Extension



The Red Line is a historic rail facility serving most of Chicago's lakefront neighborhoods. The initial proposal is to extend the existing Red Line from the existing terminal at 95th Street to a new terminal at 130th Street and the Bishop Ford Freeway. The extension is proposed to increase accessibility for residents of Chicago's far south side and southern suburbs. It is also designed to relieve congestion, reduce travel time and improve access to jobs for lower-income residents. The proposal should also promote economic development on Chicago's south side and in suburban areas.

The project will provide direct access to CTA rail transit for commute and other trip needs, linking economically disadvantaged communities to jobs in Chicago's Central Area and the Lake Calumet industrial area. The project will streamline bus-to-rail connections for 13 CTA bus routes and 6 Pace bus routes. A key component of the plan is an intermodal terminal and a major park-and-ride lot at 130th Street and the Bishop Ford Expressway. The terminal will provide connections with South Shore Line trains to Northern Indiana and Pace bus services to southeastern suburban areas.

The project will be a catalyst for the growth of employment in the far south of Chicago and nearby suburbs and, by providing an attractive alternative to auto travel, is expected to help manage congestion on the Bishop Ford and Dan Ryan Expressways. Reductions in auto use will reduce emissions and contribute toward meeting air quality standards.

This proposal should be included in evaluations conducted for other plan recommendations in the southern Chicago and the south suburbs multimodal corridor.

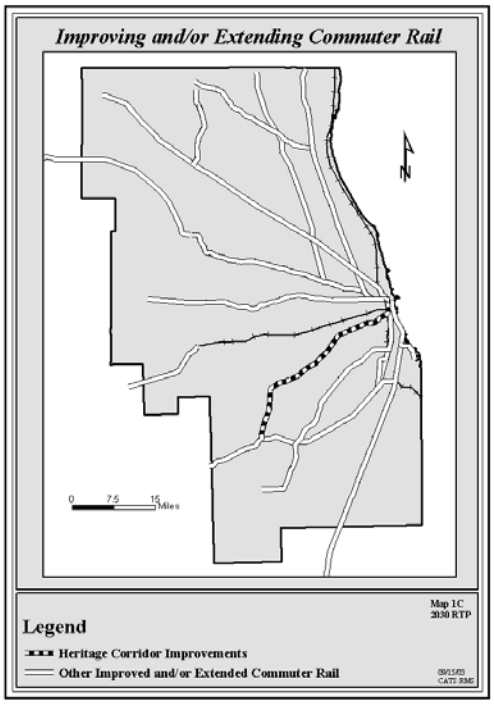
The project is adjacent to Lake Calumet and associated preserves in eastern Cook County, with the largest and most dense population of threatened and endangered species communities in the region. The project is also adjacent to Beaubien Woods near South 130th Street.

Commuter Rail

Major proposals for improving and extending service on the region's existing commuter rail system are shown in Figures 24-33. The existing commuter rail system operates primarily on radial lines serving Chicago's Central Area.

Heritage Corridor

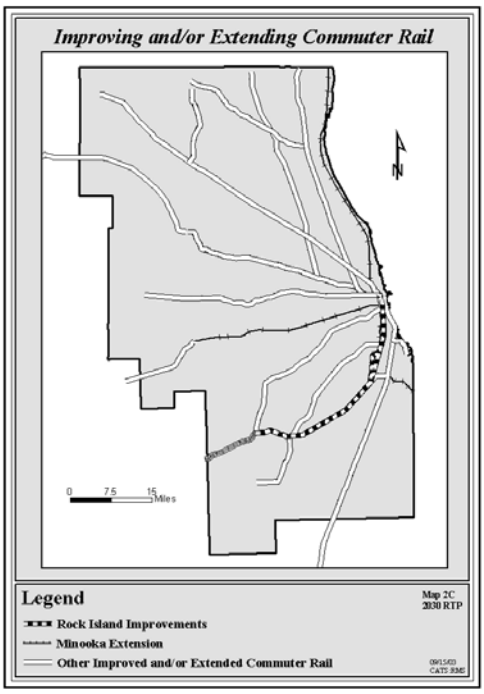
Figure 24: Heritage Corridor Improvements



The proposal is to upgrade infrastructure and service levels and add stations. The proposal calls for expansion of present service levels up to 50+ trains per day, equivalent to other full-service Metra routes. Expanded access to transit service will encourage increased ridership on the 38-mile route from Chicago Union Station to Joliet Union Depot, with 20-minute peak and 60-minute off-peak service frequencies and new weekend service. The proposal is also expected to bring about fewer passenger delays by resolving freight conflicts and expanding service to additional stations. The service will operate using conventional diesel-hauled coaches as on other Metra radial lines.

Rock Island

Figure 25: Rock Island Improvements and Extension



The initial proposal is to upgrade infrastructure and service levels. An extension to Minooka is also proposed to provide transit access to jobs from a growth area.

This includes adding a third track to the nine-mile double-track portion (between Gresham Junction and a point north of 16th Street Junction) of the Rock Island District (RID) Line, north from Gresham, where the Beverly Branch trains connect with the RID Main Line. The additional track will accommodate future expansion of RID service and the eventual connection of the Southwest Service with LaSalle Street Station. The project will also include related bi-directional signals and centralized traffic control to integrate with existing RID operations, plus several new or rehabbed bridges over city streets. Ancillary benefits include freeing up capacity at Chicago Union Station.

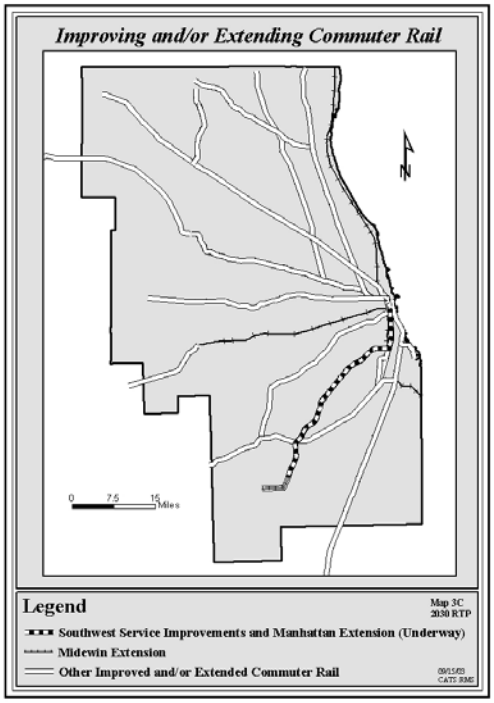
The existing Rock Island District service is near protected natural areas and streams, including Hickory Creek in Will County, and Tinley Creek, Calumet Woods and the Calumet Sag Channel. The proposed improvements, however, do not occur directly in these areas.

The proposal also calls for expansion and modernization of the daytime yard facilities that serve as the midday coach yard for all RID trains and includes a major locomotive overhaul facility. The capacity improvements, to include higher levels of service and express or limited-stop service, will require additional train sets. These will require more coach storage space.

The proposed extension is located in lower Des Plaines River Watershed and DuPage River Watershed, both classified as very high priority for protection and restoration.[129] The project crosses the Des Plaines and DuPage Rivers, which are designated "C" quality streams with opportunities for restoration to a higher quality stream,[130] and is near concentrations of wooded and agricultural lands in southwest Will County.

Southwest Service

Figure 26: Southwest Service Improvements and Extension



The proposal is to upgrade infrastructure and service levels and to provide successive extensions of service into rapidly-growing Will County.

Phase I of this project, which includes extending service to Manhattan, is a committed improvement for which funding has been secured. Phase I is expected to be completed by 2007. The present service is routed into Chicago Union Station.

The proposal includes constructing a 2-mile segment beginning west of Belt Junction (Belt Railway of Chicago, BRC) near 75th/Loomis, with a combination of bridges and embankment, crossing above Norfolk Southern (NS) tracks south of 74th St, ending near 75th/Normal where the Southwest Service (SWS) will access the RID tracks. This installation of two grade-separated rail junctions to carry the SWS above the BRC and NS tracks will separate commuter trains from freight trains.

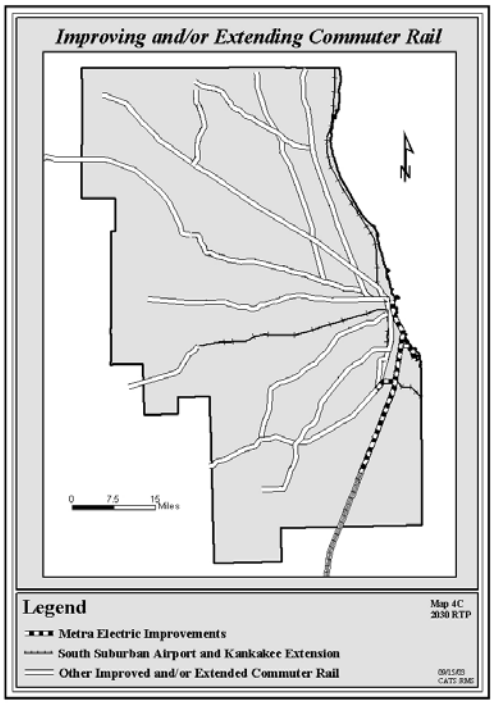
Implementing the new connection will improve operations and eliminate delays caused by freight interference. The new routing will also allow SWS trains to terminate at the less congested LaSalle Street Station in downtown Chicago. Full service includes rerouting the service into LaSalle Street Station, increasing train frequency to 50+ trains per day and providing additional parking. An extension to Midewin (near the former Joliet Arsenal site) is also proposed.

All of these changes will complement each other in making the Southwest Service more attractive and in increasing transit ridership.

The proposed extension to Midewin is within the north border of Midewin National Tall Grass Prairie in southwest Will County and crosses the Prairie Creek System in central Will County. The proposed extension is within the Lower Des Plaines River Watershed, classified as high priority for protection and/or restoration. The project would also affect agricultural land in central Will County.

Metra Electric

Figure 27: Metra Electric Improvements and Extension



The initial proposal is to upgrade infrastructure and service levels. The proposal includes relocation of the present facilities at 18th Street and Weldon Yard that currently service Metra Electric trains during the daytime layover. The present facility has long been overcrowded and outmoded, so an entirely new facility suitable for both present needs and potential expansion will be required.

The proposal also includes consideration of alternative urban rail service levels. Improved local community access, increased frequencies and off-peak service, as well as service and fare coordination with other transit services are expected to increase demand and better serve local needs.[131]

Increased accessibility of this line from downtown Chicago to South Chicago and Blue Island is expected to reduce traffic congestion and improve air quality as well as promote local neighborhood economic development.

The proposal also includes an 8-mile extension of Metra Electric District Line between University Park and the proposed South Suburban Airport. This improvement is expected to provide transit access to jobs at and near the airport, plus express passenger transport to and from downtown Chicago and intermediate locations.

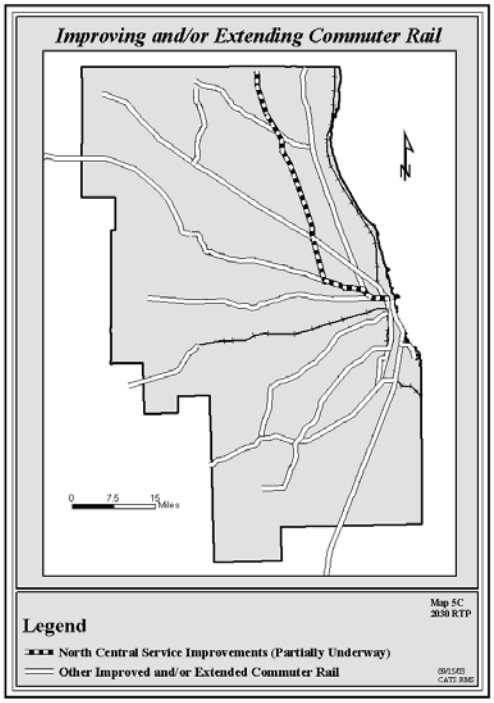
A possible inter-city rail service to Kankakee has been proposed for this line and is under study by Kankakee's Metropolitan Planning Organization.

This proposal should be included in evaluations conducted for other plan recommendations in the southern Chicago and the south suburbs multimodal corridor.

Extending this line has moderate natural resource impact potential due to its location in agricultural areas in south Cook and northeast Will counties.

North Central Service

Figure 28: North Central Service Improvements

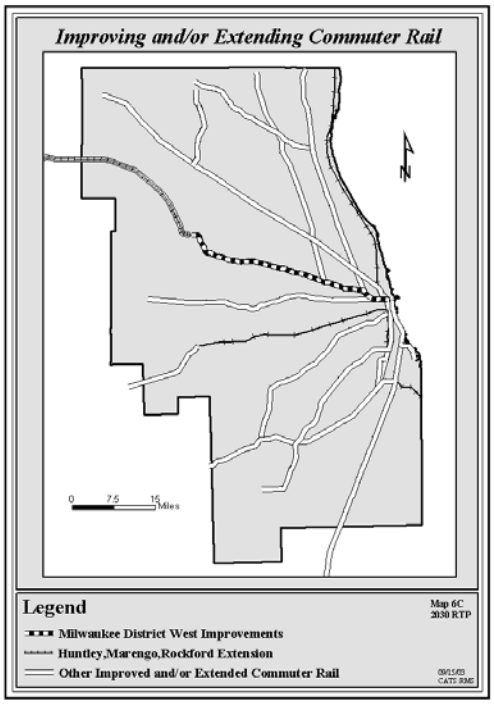


The North Central Service was implemented in the late 1990s. Phase I of the North Central Service Improvements include double-tracking much of the line, new stations, additional parking, and improved operations via the Milwaukee District West Line to Union Station. The proposal calls for ongoing incremental upgrades to infrastructure and service levels.

Phase I of this project is a committed improvement for which funding has been secured. Completion is scheduled for 2007.

Milwaukee District West

Figure 29: Milwaukee District West Improvements and Extension

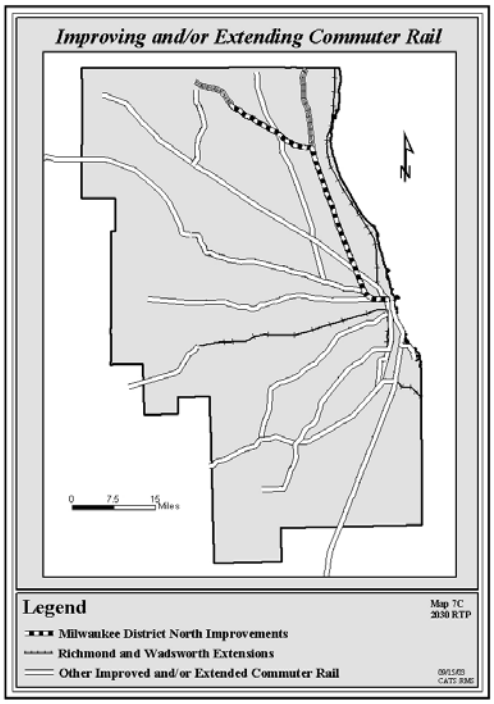


The initial proposal includes a new 11-mile extension of Milwaukee District-West Line between Elgin in Kane County and rapidly growing Huntley in McHenry County with a corridor continuing to Marengo and Rockford. An extension to Hampshire in Kane County along a different route is also proposed.

The project is located within agricultural areas in southwest McHenry County. The project also passes within the Kishwaukee Creek Watershed in northern Kane and southwestern McHenry County, classified as very high priority for protection and/or restoration. The project crosses the north branch of Kishwaukee Creek, an "A" quality stream identified as a unique aquatic resource.

Milwaukee District North

Figure 30: Milwaukee District North Iimprovements and Extension



The proposal includes upgrading infrastructure and service levels with two possible extensions, one to Richmond and another to Wadsworth.

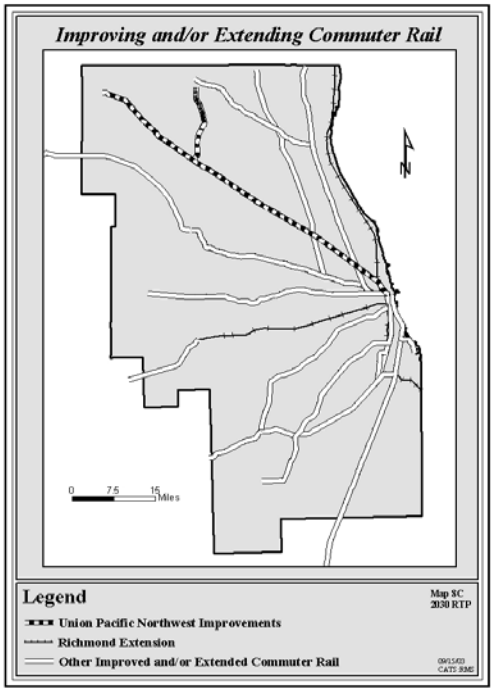
The Fox Lake segment would be improved with additional track between Rondout and Fox Lake. The extension to Richmond will increase transit choices in fast-growing eastern McHenry County. This is expected to improve air quality, preserve agricultural land and increase economic viability through attraction of employment opportunities adjacent to the line.

The extension to Richmond is located within agricultural areas in northeastern McHenry County. There are threatened and endangered species throughout the corridor. The project is located within Nippersink Creek Watershed, classified as very high priority for protection and/or restoration.

The extension to Wadsworth includes 13 miles of new service between Rondout and Wadsworth in northeastern Lake County. The project is expected to provide transit access to areas of rapidly growing employment and housing. The extension is expected to serve a significant market of city-to-suburb and suburb-to-suburb commutes, similar to demand patterns found in the Lake-Cook Road area.

Union Pacific Northwest

Figure 31: Union Pacific Northwest Improvements and Extension



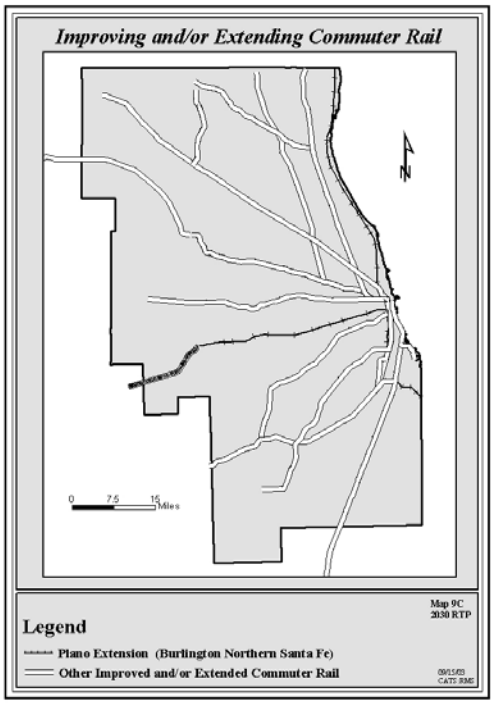
The proposal provides upgrades to the existing signal system and additional crossovers and other track improvements to increase the operating capacity and reliability of the Union Pacific-Northwest Line. The extension to Johnsburg and later Richmond will allow improved operations on the entire line. A new yard is planned for the Johnsburg area. Faster speeds, shorter travel times and increased efficiency of the physical plant are expected to increase overall ridership.

The project is located within the Upper and Middle Fox River Watersheds, classified as very high priority for protection and/or restoration. The project is also adjacent to and crosses the Nippersink Creek and Boone Creek systems in northeast McHenry County.

The project is within or adjacent to threatened and endangered species communities and is located within agricultural land in central and north McHenry County. The project is also located within wooded areas associated with McHenry County Conservation District's Glacial Park.

Burlington Northern Santa Fe (BNSF)

Figure 32: Burlington Northern Santa Fe Extension

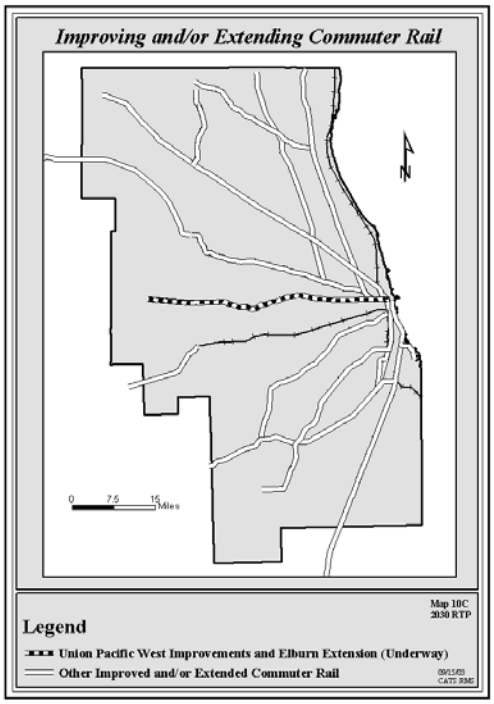


The initial proposal is to extend the Metra-BNSF Chicago-Aurora Commuter Rail Service from its current terminus in Aurora to Oswego. A longer extension terminating in Plano is also proposed. The extension of rail service will serve new and planned residential and commercial developments in the outlying counties.

The project is located within the Lower Fox River Watershed and is classified as very high priority for protection and/or restoration. The project crosses Blackberry Creek, a "C" quality stream identified as having opportunities for restoration to a higher quality.

Union Pacific West

Figure 33: Union Pacific West Improvements



The Union Pacific West (UP-W) Line is a commuter rail line serving Chicago's CBD and western suburbs. The UP-W has served adjacent communities for most of their history. The passenger service shares the right-of-way with significant freight traffic.

In order to provide additional passenger access to new development on the region's edge, an extension of UP-W from the current terminus in Geneva (Kane County) to a new terminal at Elburn is already underway. The new yard in Elburn will eliminate extensive congestion, freight conflicts and dead-heading between West Chicago and Geneva.

This Elburn extension is a committed improvement for which funding has been secured. Completion is scheduled for 2007.

In order to provide faster and more frequent service as well as to improve reliability for passenger and freight users, this proposal includes significant infrastructure and service level upgrades. The current proposal includes implementing a new 4-aspect signal system to replace the current 2-aspect system, and to upgrade existing track, including new crossovers. A third track will be added to an existing double-track portion of the line east of Elmhurst.

As part of the UP-W improvements, it also proposed to move the current A-2 crossing at Western Avenue to a new location one mile east, away from entrances to coach yards. This includes major track relocations on the embankment. The proposal also includes many crossover reconfigurations. Simple diamonds will replace double-slip switches. These operations improvements will enable both revenue and deadhead trains to move through the new crossing point at increased speeds. This is expected to reduce operating costs.

This proposal is also being evaluated in the Cook/DuPage multimodal corridor study.

This project is located within the Middle Des Plaines River and Middle Fox River Watersheds, classified as very high priority for protection and/or restoration.

Existing major highways

Northeastern Illinois' major highway system significantly contributes to mobility and accessibility within the region. Highway accessibility to the region's multiple commercial centers from all points provides a sustaining advantage in both goods movement and employment opportunities.

The RTP supports increased multimodal capacity to the region's existing commercial centers. In growing parts of the region, additional major highway capacity is recommended as part of multimodal traffic congestion management.

In mature parts of the region, additional major highway capacity may also require special attention to mitigating community and environmental impacts. These projects also present an opportunity to enhance the quality of existing communities by close coordination with community planning efforts.

In growing areas, highway capacity additions are often designed for conventional unrestricted use focusing on highway users. The RTP recommends, however, that design of conventional lane additions incorporate intensive management, operations and design strategies to optimize long-term multimodal operations, particularly with regard to accommodating bus and truck priorities.

Transportation management techniques should be included in the engineering studies for highway capacity additions. To reduce travel demand, priority treatments for transit and carpools should also be considered in project studies. Value pricing and electronic toll collection should be considered on toll facilities to reduce peak congestion. Other

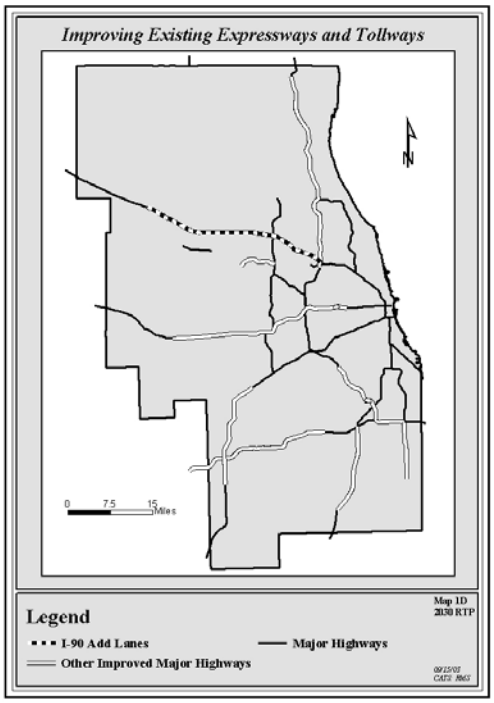
strategies that reduce single occupant vehicle travel should also be considered. In addition, transportation system management strategies such as improved and expanded ramp metering and collector-distributor and other auxiliary lanes should be considered to smooth traffic flow and improve safety, while simultaneously providing access from communities to the trunk lines of the highway system.

The RTP recommends that bicycle and pedestrian travel be accommodated along and across highway corridors, so that the expressway and tollway systems do not act as a barrier to non-motorized travel. Consideration of non-motorized access to transit stations and bus services is particularly important. The RTP also recommends that walking and bicycling needs that will come with future urbanization be considered in provision of accommodations along highway corridors in growing areas.

Figures 34-42 discuss the project recommendations related to highway expansions and improvements.

I-90 (Northwest Tollway)

Figure 34: I-90 (Northwest Tollway) Improvements



The initial proposal is to provide an additional lane in each direction on the Northwest Tollway from I-294 to the Elgin toll plaza. A subsequent proposal is to continue the additional lanes from the Elgin toll plaza to Sandwald Road. Most of the Northwest Tollway will require reconstruction in the coming decades.

I-90 links Chicago and O'Hare Airport with the Schaumburg and Elgin areas. Population and employment are at high densities in much of the corridor, and continue to grow. I-90 also accommodates a large volume of external trips, serving travel to Rockford, northwestern Illinois and south-central Wisconsin. Additional lanes on the Tollway will help accommodate continued growth in the region as well as increasing external demand. Several reconfigured and expanded auxiliary lanes may be appropriate to improve traffic flow as well as highway safety. New and expanded interchanges should be considered to keep pace with community and economic development. Careful planning and engineering are necessary to assure that any additional lanes on the Northwest Tollway do not create a lane balance problem at the interchange with the Kennedy Expressway, Tri-State Tollway, and I-190. Additional attention should be paid to assure that the project takes into account a possible West O'Hare Bypass and western terminal for O'Hare.

The eastern section of this project coincides with the proposed STAR (Suburban Transit Access Route) line transit service. Close coordination of the highway project with any transit improvements in the corridor is necessary. Particular attention needs to be paid to providing safe walking and bicycling access across I-90 from adjoining neighborhoods and comprehensive complementary bus services to proposed transit services. The transit service and highway improvements may prove to be complementary, particularly if priority treatments for transit and carpools are included in the project design studies. Dedicated access for transit and carpools should be included in project studies.

Value pricing should also be studied as an integral part of the project to reduce congestion and increase accessibility.

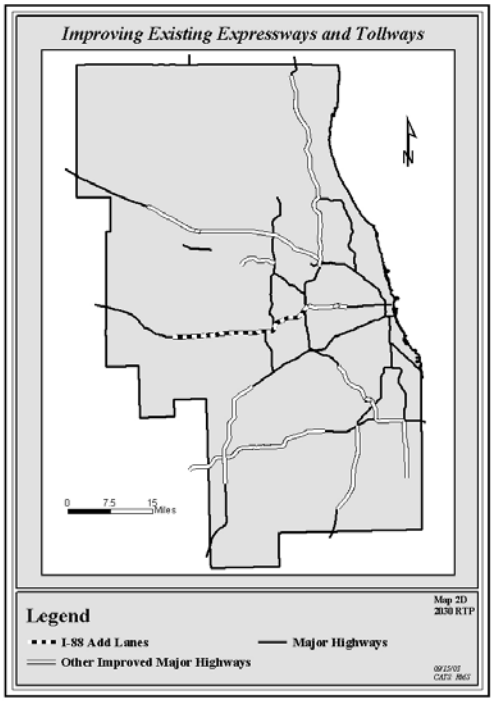
I-90 (Northwest Tollway) (continued)

This section from I-294 to Elgin crosses the Fox River in northern Kane County, which is a "C" quality stream, identified as having opportunities for restoration to higher quality stream. The project is adjacent to the south border of the Max McGraw Wildlife Foundation property east of the Fox River and is adjacent to three major Cook County Forest Preserve District properties: Poplar Creek, Paul Douglas and Ned Brown forest preserves. The project also passes through a concentration of streams and palustrine wetlands (i.e., wetlands not associated with rivers or streams).

The section of the project west of Elgin is located within the Kishwaukee River Watershed in the northwestern area of the region; the area is classified as very high priority for protection and/or restoration. The project crosses Eakin Creek in north Kane County, which is part of the Kishwaukee River System and classified as a "B" quality stream, a highly valued aquatic resource. The project also passes through a concentration of threatened and endangered species near Sandwald Road.

I-88 (East-West Tollway)

Figure 35: I-88 (East-West Tollway) Improvements



I-88 links the near west suburbs of Chicago with Oak Brook and the Naperville/Aurora areas. The corridor has grown rapidly and is the home of several commercial centers. The road was originally built through less-developed areas between transit-oriented communities that had developed along existing parallel commuter rail services; the areas surrounding the road have since developed with lower density uses interspersed with land reserved from development. Intense development pressure is expected to continue, with more opportunities to provide accessibility through recommended capacity improvements and complementary new transit service.

The road also serves external travel to DeKalb and northern Illinois. This external travel may also soon include additional freight traffic destined for a major new intermodal terminal at Rochelle.

The RTP proposal is to provide an additional lane in each direction on the East-West Tollway from I-290 to Orchard Road in Kane County. Since most of the East-West Tollway will require reconstruction in the coming decades, capacity additions can be efficiently implemented during reconstruction projects.

In addition, several reconfigured and expanded auxiliary lanes and interchanges may be appropriate to improve traffic flow and community access, as well as highway safety.[132]

The project is part of a multimodal transit corridor extending from downtown Chicago to the western suburbs. Portions of this project coincide with the proposed DuPage "J-Line" and Blue Line extension. The Cermak Road BRT project is also being considered for implementation in the multimodal study. Close coordination of this highway project with all proposed transit improvements in the corridor is necessary.

This proposal is also being evaluated in the Cook/DuPage multimodal corridor study.

I-88 (East-West Tollway) (continued)

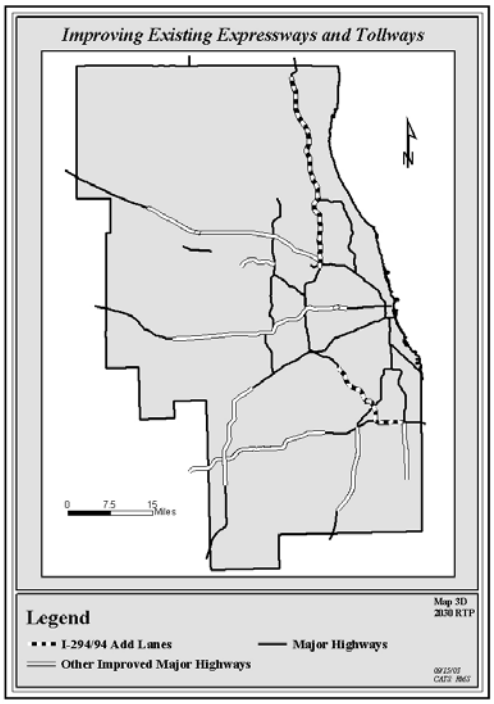
Safe walking and bicycling accommodation across the facility from adjoining neighborhoods and feeder bus services to proposed transit services is suggested. The transit service and highway improvements are complementary, particularly if priority treatments for transit and carpools are included in the project. Dedicated access for transit and carpools should be examined in project studies.

Value pricing should also be studied as an integral part of the project to reduce congestion and increase accessibility.

The project is partially located in the Lower Fox River Watershed, which is classified as very high priority for protection and restoration. The project crosses the Fox River, the Main and East Branches of the DuPage River, and Salt Creek. The project is adjacent to DuPage County preserves, such as Big Woods, Danada, York Woods, Fullersburg Woods and the privately owned Morton Arboretum, which encompasses a large concentration of threatened and endangered species communities.

I-294/94 (Tri-State Tollway)

Figure 36: I-294/94 (Tri-State Tollway) Improvements



The Tri-State Tollway was originally intended to provide a bypass of congested city highways for external trips traveling through the region. Today, the Tri-State also links suburban communities in an arc from the south suburbs to Lake County, providing access to O'Hare International Airport and several commercial and industrial centers, as well as intermodal freight terminals. The initial proposal is to provide an additional lane in each direction on the Tri-State Tollway from US12/20 (95th Street) to IL394. Additional lanes on the northern segment from Dempster Street to Balmoral are currently being studied for implementation. Additional lanes extending north to IL173 in Lake County were also proposed.

Most of the Tri-State Tollway will require restoration or reconstruction in the coming decades, so reconstruction projects may provide opportunities to efficiently add capacity. In addition, a project to add capacity and improve operations on I-80 east of IL394 and at the interchange of I-94 complements the south segment of I-294 capacity improvements.

Several reconfigured and expanded auxiliary lanes and interchanges may be appropriate to improve traffic flow as well as highway safety. In particular, completion of a full interchange between I-294 and I-57 is expected to improve the accessibility of the south and southwest suburbs.

Electronic toll collection is a key part of management strategies proposed for the Tri-State. Electronic toll collection (e.g., I-Pass) can be used to implement value pricing in addition to expediting toll collection and reducing congestion associated with toll collection. As the Tri-State Tollway is an important national freight route, implementation of electronic toll collection truck lanes or express lanes serving all traffic is important in managing congestion on the road.

The southern section of this proposal should be included in evaluations conducted for other plan recommendations in the southern Chicago and the south suburbs multimodal corridor.

I-294/94 (Tri-State Tollway) (continued)

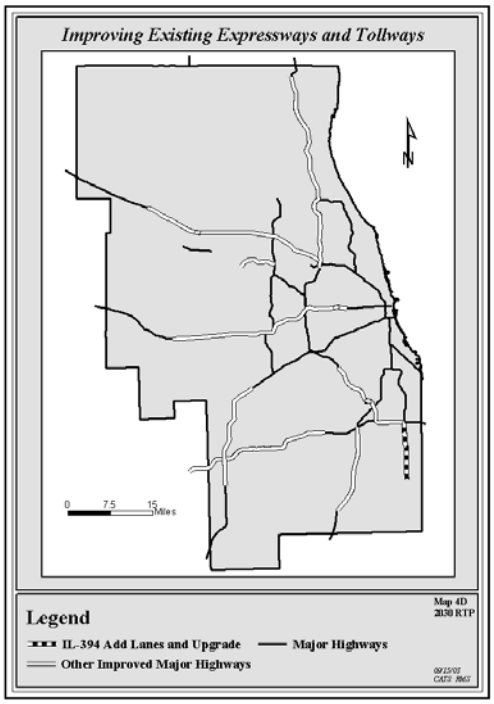
The northern section of the project (IL137 to IL173) is located in a watershed classified as high priority for restoration and crosses Mill Creek and segments of the Des Plaines River, which are classified as moderate aquatic resources. The project also passes through woodlands and is in an area of concentrated wetlands.

The central section of the project is adjacent to and passes through numerous preserves in south Lake County and north Cook County, such as Old School, Potowatomi Woods and Schiller Woods adjacent to the Des Plaines River. The project crosses the West Fork of the North Branch of the Chicago River and is in an area with a concentration of threatened and endangered species in southern Lake County.

The southern section of the project crosses Stony Creek, Calumet Sag Channel, Thorn Creek and the Thorn Creek Forest Preserve within a concentration of threatened and endangered species communities in south Cook County.

IL394

Figure 37: IL394 Improvements



IL394 connects southeastern Will County to the rest of the region. The highway is also expected to be a key access route to the proposed South Suburban Airport. The initial proposal is to add lanes from I-80/94 to south of the proposed IL394/I-57 connector road and to convert from the existing high-type arterial to freeway design from US30 to south of the proposed IL394/I-57 connector road. From the connector road to IL1, the road would remain a controlled-access arterial road.

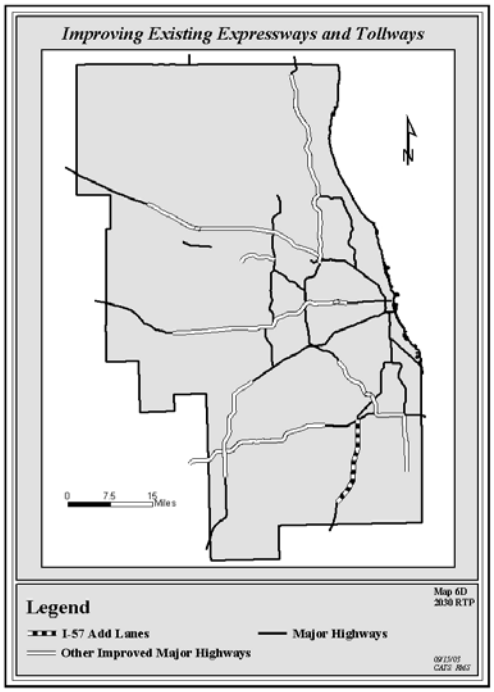
Several reconfigured and expanded auxiliary lanes, interchanges and viaducts may be appropriate to improve traffic flow as well as highway safety.

This proposal should be included in evaluations conducted for other plan recommendations in the southern Chicago and the south suburbs multimodal corridor.

The project passes through the Thorn Creek Forest Preserve and Thorn Creek in south Cook County, the location of numerous threatened and endangered species communities and a concentration of palustrine wetlands. The project also crosses agricultural areas in south Cook County.

I-57

Figure 38: I-57 Improvements



I-57 links the Chicago area with east central and southern Illinois as well as cities of the lower Mississippi River valley. I-57 also provides a regional link to the proposed South Suburban Airport. The corridor is expected to grow in the coming years. The initial proposal is to provide an additional lane in each direction on I-57 from I-80 to the proposed I-57/IL394 connector. The proposal then continues the additional lane from the I-57/IL394 connector to Peotone Road.

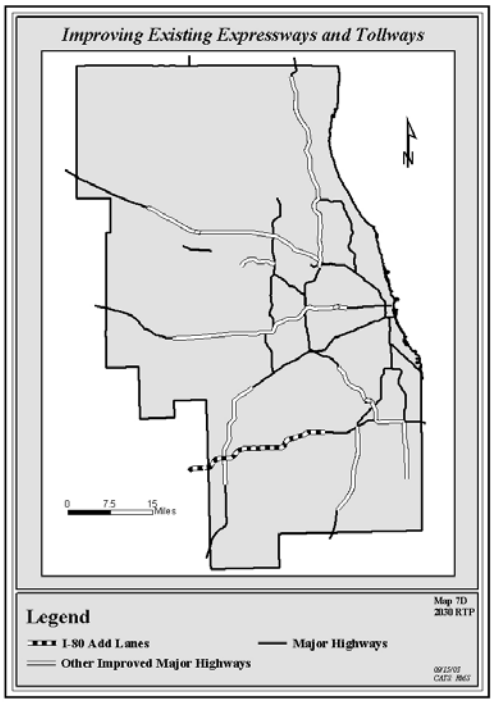
Additional interchanges should be considered to accommodate future growth. In addition, transit service and carpool priority access alternatives should be considered in coordination with development of the proposed South Suburban Airport.

The project should be coordinated with NIPC and local jurisdictions along this facility that are developing bicycle trails and local bicycle networks.

The project passes through the Tinley Creek Forest Preserve and Natural Area Inventory Sites. The project is located in an area of concentrated wetlands and streams and is partially located in the Calumet River Watershed, classified as very high priority for protection and restoration. The project also passes through agricultural areas in south Cook County.

I-80

Figure 39: I-80 Improvements



I-80 links the Chicago area to the northern tier of the United States. The initial proposal is to provide an additional lane in each direction on I-80 from US45 to I-55. The proposal then continues the additional lane from I-55 to the Will County Line. The project is anticipated to serve rapidly growing Will County. The project will also serve a large number of external trips. The road is an important freight route.

To keep pace with future community and economic development, additional interchanges may be considered on the road, including a link to the proposed extension of I-355 near New Lenox.

The project should be coordinated with NIPC and local jurisdictions along this facility that are developing bicycle trails and local bicycle networks.

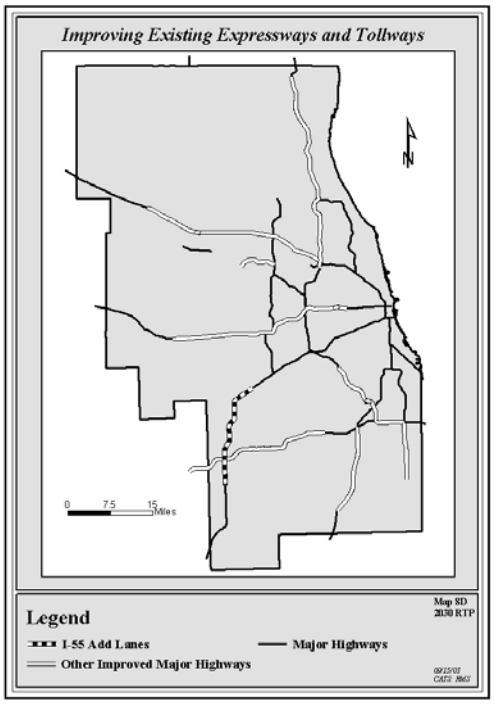
The project will also pass through Joliet. Attention to and coordination with local development and redevelopment goals is recommended.

The section of I-80 from I-55 to US45 crosses the Des Plaines River in Joliet, the Marley Creek System in eastern Will County near Frankfort, and the Hickory Creek System in central Will County. The project is located in the Lower Des Plaines Watershed in central and eastern Will County, which is identified as very high priority for protection and/or restoration. It is also adjacent to Higinbotham Woods, a property of the Forest Preserve District of Will County.

The section of I-80 from I-55 to the Will County line is located in a watershed classified as high priority for restoration. The project crosses the DuPage River, a "B" quality stream, identified as a highly valued aquatic resource at the border between Will and Kendall counties.

I-55

Figure 40: I-55 Improvements



I-55 links the Chicago area to central Illinois, St. Louis, and the southwest United States. Rapid population and employment growth has taken place in this corridor over the past several years, and is expected to continue.

The initial proposal is to provide an additional lane in each direction on I-55 from Naperville Rd to south of US6 in Will County, where two lanes in each direction are currently provided. The portion between Naperville Road and Weber Road is currently programmed for construction and is expected to be completed in 2005.

The proposal then continues the additional lane from south of US6 to Arsenal Road. Depending on the location of the Arsenal Road interchange, construction of this segment may require substantial improvements to the Des Plaines River Bridge or a new bridge structure. The existing Arsenal Road interchange may be moved to facilitate freight operations at the approaches to the interchange.

Other reconfigured and expanded auxiliary lanes, interchanges and viaducts may be appropriate to improve traffic flow and community access, as well as highway safety. In addition, freight accommodations need particular attention in this corridor because of unusually high truck volumes. The facility serves one of the region's most important industrial and transportation corridors. A major new intermodal freight terminal is near the south terminus of the project adjacent to the Midewin site.

The project should be coordinated with NIPC and local jurisdictions along this facility that are developing bicycle trails and local bicycle networks.

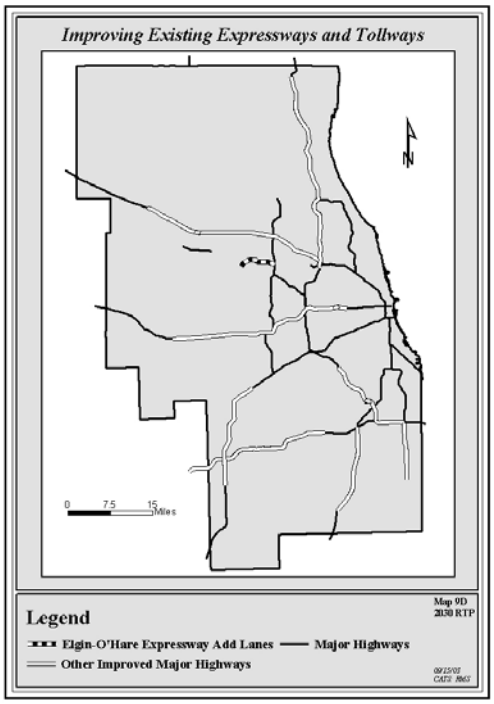
The project crosses the DuPage River System in west central Will County, and north through the Lily Cache Creek System. The south segment of the project borders the DuPage River Watershed, which is identified as high priority for protection and/or restoration. The project is adjacent to Hammel Woods, a property of the Forest Preserve

I-55 (continued)

District of Will County that abuts the DuPage River. The north section of the project borders a concentration of lakes and wetlands associated with the Lake Renwick Heron Rookery. The north section of the project area includes records of threatened and endangered species communities.

Elgin-O'Hare Expressway

Figure 41: Elgin-O'Hare Expressway Improvements



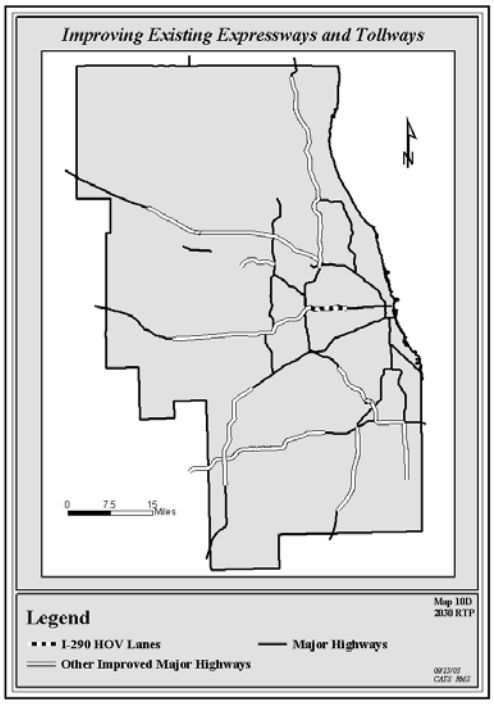
The Elgin-O'Hare Expressway has been planned to link Elgin and other western suburbs with O'Hare International Airport. The first part of the road was opened in the 1990's and presently carries high traffic volumes. In addition to extending the Elgin-O'Hare east and west, the RTP recommends adding lanes to the existing freeway, which provides two lanes in each direction from US20 to near I-290.

As this road passes through residential developments and near transit services, improved non-motorized access along and across the expressway should be considered. In addition, the RTP recommends consideration of priority treatments for carpools and transit vehicles where appropriate.

The project should be coordinated with NIPC and local jurisdictions along this facility that are developing bicycle trails and local bicycle networks.

I-290 High-Occupancy-Vehicle Lanes

Figure 42: I-290 High-Occupancy-Vehicle Lanes



I-290 (Eisenhower Expressway) serves Chicago's CBD and western suburbs. The initial proposal includes a high-occupancy-vehicle (HOV) lane on I-290 from I-88 to Austin Boulevard. The expressway serves a corridor with complementary transit service and high transit ridership, particularly for city-to-city and suburb-to-city commutes. However, the corridor has long been congested, partly because of a lane balance problem at both project termini. In addition, increasing numbers of trips along the corridor are city-to-suburb and suburb-to-suburb, not amenable to diversion to traditional transit.

Completely eliminating the congestion problem along I-290 is likely cost-prohibitive. Therefore, HOV lanes are proposed as an efficient and cost-effective solution to moving larger numbers of people through the corridor. HOV lanes are well-suited for transit service and carpools for dispersed suburban destinations. The HOV lanes will also complement existing and proposed transit service in the corridor.

This project parallels the Blue Line Forest Park Branch, which is also proposed to be extended in the RTP and whose service may double as part of the "Circle Line" proposal. Several other transit services are also in the project corridor. The RTP recommends including each of these interrelated proposals in corridor project studies. Particular attention should be paid to providing safe walking and bicycling access across the I-290 corridor from adjoining neighborhoods and feeder bus services to existing and proposed transit services.

These overlapping proposals are being evaluated in the Cook/DuPage multimodal corridor study. In addition, a study of "capping" a portion of the I-290 expressway in this area is being developed. A cap may reduce community impacts and could provide complementary transportation facilities.

The project crosses the Des Plaines River and terminates near historic Columbus Park, where adjacent auxiliary lanes and interchange improvements are planned. The project is also near the Gunderson Historic District.

3.3.2.3 Expanding the transportation system to manage growth and change

The RTP's goal of using transportation to sustain the region recognizes the need to promote transportation proposals that accommodate urban growth while protecting and improving environmental quality, building strong communities, encouraging economic development and providing a variety of transportation choices to all travelers.

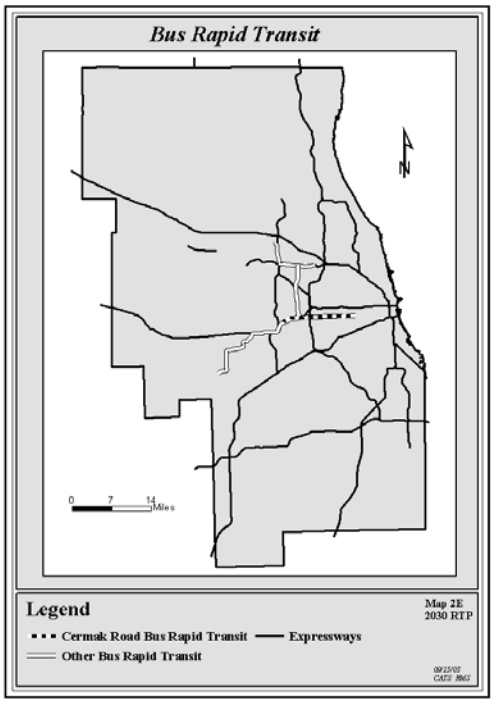
Introducing new transportation facilities may also indicate the need for special attention to mitigating negative community and environmental impacts. These projects also present an opportunity to enhance the quality of existing communities by close coordination with community planning efforts.

Bus rapid transit (BRT)

An emerging transit mode called "bus rapid transit" (BRT) offers transit service on arterial streets or dedicated rights-of-way. Traffic signal priority is a key element of the service. In addition, specially designed vehicles offer rapid boarding and alighting, sometimes from stations where fares are processed prior to boarding, further reducing dwell-time and speeding service. Specific BRT projects, in addition to those identified with the Chicago Transit Hub, form the beginnings of a regional network of these facilities that provide additional transit choices in both urban and suburban locations. As the following BRT proposals shown in Figures 43 and 44 are in part overlapping, they are adopted as plan recommendations to facilitate further study leading to a coordinated set of transit services. In addition, the BRT systems could serve to develop and test the market for heavier investments in rail services.

Cermak Road Bus Rapid Transit

Figure 43: Cermak Road Bus Rapid Transit



The project would provide Bus Rapid Transit service from Yorktown Center in Lombard to the CTA Blue Line terminal in Cicero. The BRT would serve the Cicero/Berwyn commercial area, North Riverside Park Shopping Center, Westchester business developments, Oak Brook Center and Yorktown Mall.

The project is expected to provide decreased travel times over conventional bus service, with transit vehicles receiving priority during traffic congestion delays. Rapid boarding and alighting would reduce station dwell times.

The Cermak Road BRT has already undergone significant study. Plans incorporate limited stopping patterns, off-board fare payments, level boarding, high-quality passenger facilities, passenger information systems, transit signal priority, pedestrian and bicycle access enhancements, park-and-ride and kiss-and-ride facilities where applicable, and highly recognizable physical facilities, signage and vehicle graphics.

Cermak Road BRT stations will be comprised of a mix of regular stops, "super stops," community transportation centers and regional transportation centers.

Regular BRT stops will include a heated waiting area enclosed on three sides and a sheltered boarding area. These will typically be located along a BRT route at or near an intersecting street on which no connecting BRT service is planned.

Super stops will be located where another BRT or major bus route intersects. This essentially results in a four-way bus stop at one intersection. This stop would include an enclosed heated shelter with passenger information including next bus information.

Community transportation centers may serve several transit routes. They will typically include all passenger amenities and be located at rail stations, community downtowns, shopping centers and other major activity centers.

Regional transportation centers incorporate a large number of travelers and higher bus volume and frequency. A regional transportation center might be located at a major

Cermak Road Bus Rapid Transit (continued)

employment center or retail destination. A connection to regional arterial routes such as the DuPage County "J" route would be established here, as well as connections to community services. These centers would contain schedule information, next bus time, seating and amenities like dry cleaners, day care centers, banks, video rental and convenience stores.

Continued implementation of Traffic Signal Priority (TSP) programs will allow for incremental transition to BRT service on Cermak Road. TSP gives transit vehicles priority at intersections by granting an early green phase or an extended green phase to approaching buses. TSP should be incorporated with emergency signal priority programs.

Other ITS features expected to by incorporated with the Cermak BRT service include automatic vehicle location, electronic fare collection (to reduce dwell times at stops), transfer connection protection (to reduce transfer wait times), real time passenger information (to help patrons plan their itinerary) and facility monitoring and security systems.

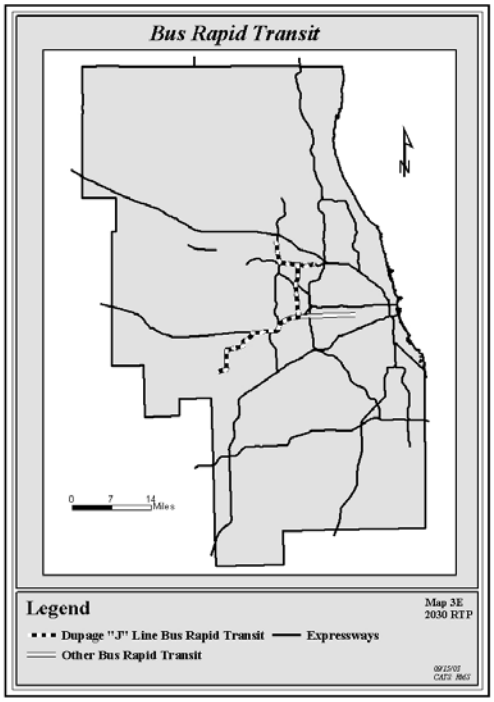
The Cermak Road BRT service would enhance service to the 54th/Cermak rapid transit service now being improved. The service would also feed and complement a proposed "J-Line" BRT service to Schaumburg, O'Hare and Naperville as well as an extension to the Forest Park rapid transit service at Oak Brook.

This proposal is also being evaluated in the Cook/DuPage multimodal corridor study.

The project crosses Salt Creek in DuPage County adjacent to York Woods and Fullersburg Woods on Salt Creek, properties of the Forest Preserve District of DuPage County. The project also crosses the Des Plaines River and adjacent forest preserves in Cook County.

DuPage "J" Line Bus Rapid Transit

Figure 44: DuPage "J" Line Bus Rapid Transit



The proposed BRT ("J" Route) is one of the key elements of the DuPage Area Transit Plan, intended to provide a fully integrated multimodal and regionally coordinated transit system for DuPage County. The plan also includes a system of intra-county connectors and local circulators (designed to feed into connector routes) functioning in concert with the proposed BRT and Metra services. The "J" Route would provide a high-speed link from O'Hare and Schaumburg through Oak Brook, to Naperville and Aurora and to the proposed Outer Circumferential Service.[133]

This high-speed corridor provides an important connection between the major regional traffic generators and destinations of O'Hare International Airport and the Woodfield area in Schaumburg with DuPage County's largest concentration of employment and retail activity (Oak Brook) and heavily residential areas in Naperville and Aurora. This project is one of the critical elements contributing to suburban-to-suburban connections in the region.

The line would operate initially in priority lanes on surface streets and employ a variety of new techniques and technologies to speed service. However, at full operation, the "J" route will provide high-speed service operating on an exclusive bus way.

The BRT will incorporate limited stopping patterns, off-board fare payments, level boarding, high-quality passenger facilities, real-time passenger information systems, pedestrian and bicycle access enhancements, park-and-ride or kiss-and-ride facilities where applicable, links to connector and circulator bus service and highly recognizable facilities, signage and vehicle graphics.

BRT stations will be comprised of a mix of "superstops," community transportation centers and regional transportation centers. Superstops will be located where a connector bus route links to the BRT. These stops will include enclosed heated shelters with passenger information, including real-time information on the arrival of the next bus. Most BRT stations will be of the superstop type.

DuPage "J" Line Bus Rapid Transit (continued)

Community transportation centers may serve several transit routes. They will typically include all passenger amenities and be located at rail stations, community downtowns, shopping centers and other major activity centers. Community transportation centers might be appropriate in downtown Naperville, Yorktown Shopping Center and at the connection of the BRT with the Outer Circumferential Service on the EJ&E.

Regional transportation centers accommodate a large number of travelers and higher bus volume and frequency. A regional transportation center might be located at a major employment center or retail destination. A connection to regional transit routes such as the Cermak Road BRT or the Northwest Transit Corridor would be established here, as well as connections to community services. These centers would contain all passenger amenities and also retail or service activities. Regional transportation centers might be appropriate in locations such as Oak Brook or Schaumburg.

This proposal is also being evaluated in the Cook/DuPage multimodal corridor study.

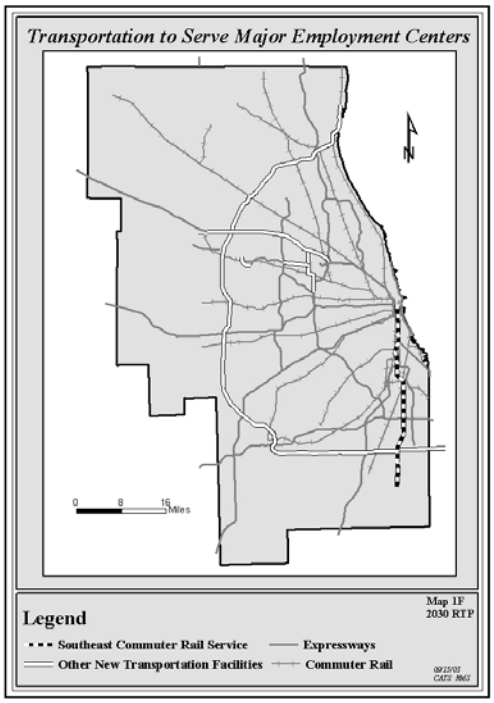
Portions of the project are adjacent to or cross the Ned Brown Forest Preserve, the Cricket Creek forest preserves and the Morton Arboretum. The project also crosses Salt Creek, Salt Creek Marsh and the East and West Branch of the DuPage River.

New transportation to serve the region's major employment centers

Multimodal access to the region's major employment centers is necessary to sustain a large and diverse employment pool. Figures 45-47 show proposals in this category.

Southeast Commuter Rail Service

Figure 45: Southeast Commuter Rail Service



The proposal is to introduce a new commuter rail line serving Chicago, southern Cook and northeastern Will County, including a possible connection to the proposed South Suburban Airport.

The initial proposal is for a new 33-mile commuter rail line between the Chicago CBD and southern Cook/northeastern Will County suburbs. The project is expected to provide additional transit access to jobs from underserved areas and promote local economic development. The proposed route runs north from Crete using primarily UP/CSX right-of-way, joining the Metra Rock Island District at Gresham to LaSalle Street Station.

Alternatives evaluations should include consideration of several choices of right-of-way and service patterns, including evaluating the potential to provide local community access along the entire route. The project should be closely coordinated with the proposals to extend the Red Line (rapid transit) and upgrades to the Rock Island District and Southwest Service in this area.

These evaluations should also include examination of providing more frequent service and station locations within Chicago. Commuter parking, linkages to other transit services and non-motorized access to stations are also important to making the line a success.

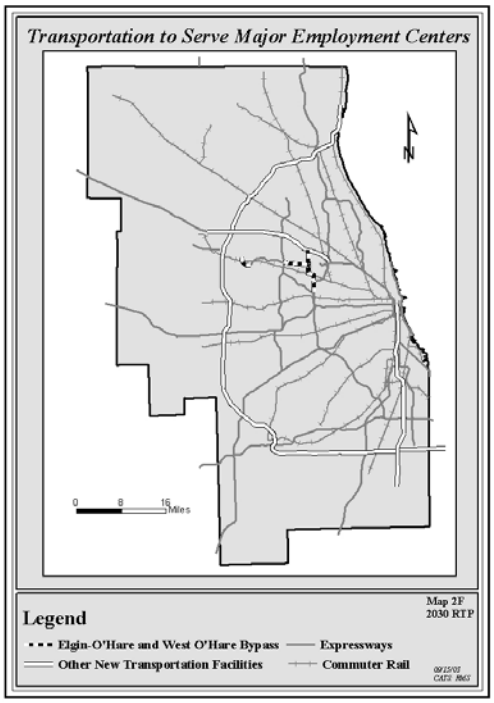
Management and operations planning should include evaluating opportunities to reduce or eliminate conflicts with freight operations along the line. The project should be closely coordinated with strategic plans for freight rail improvements in the region. The UP/CSX line has been identified as a strategic rail freight corridor for the region by the rail freight industry.

This proposal should be included in evaluations conducted for other plan recommendations in the southern Chicago and the south suburbs multimodal corridor.

The project crosses streams and wetlands associated with Thorn Creek, Butterfield Creek and Plum Creek in the southern Cook/northern Will County segment of the project. The project is adjacent to Thorn Creek Forest Preserve properties in southern Cook County.

Elgin-O'Hare Expressway and West O'Hare Bypass

Figure 46: Elgin-O'Hare Expressway and West O'Hare Bypass



The initial proposal is to provide new multimodal highway segments to complete west and east segments of the existing Elgin-O'Hare Expressway and provide new access to and bypass west of O'Hare Airport.

On the western end of the existing Elgin-O'Hare facility, a short "near west" expressway segment is proposed to bypass the community of Ontarioville in Hanover Park. The segment will also complete the facility's connection to US20.

The remaining western sections between Shales Parkway and East Bartlett Road are proposed as improvements to US20 to an access-controlled arterial facility, perhaps functioning as a regional boulevard. Arterial improvements should include signal improvements and access control.[134] Pedestrian and bicycle accommodations and priority facilities for transit service would improve travel options for residents, employees and other corridor users.

On the eastern end of the existing Elgin-O'Hare facility, an expressway segment is proposed to complete the facility's connection to O'Hare. This section of the Elgin O'Hare passes through a major industrial and distribution center for the region. Freight access and management and operations will be important considerations in facility design. In addition, there are existing residential communities adjacent to the corridor that should be considered in mitigating the impacts of the project.

In addition, RTP recommendations for transit service in the corridor overlap portions of the proposed Elgin-O'Hare Expressway, including the DuPage J line transit service and elements of the Northwest Transit Corridor proposals. The RTP recommends that the Elgin-O'Hare Expressway be planned for multimodal use, including consideration of substantial local and regional transit service options.[135]

The facility is also expected to provide a western access point to O'Hare's passenger terminals, relieving congestion to the east of the airport. The O'Hare Bypass is proposed to provide a new connection between I-294 and I-90. The area surrounding O'Hare is a mature residential and business area. Attention should be paid to mitigating the impacts

Elgin-O'Hare Expressway and West O'Hare Bypass (continued)

of the road on adjacent residents and businesses, strengthening economic development and providing for regional travel needs.

Close coordination of the project with proposed airside and terminal capacity improvements at O'Hare International Airport is necessary.

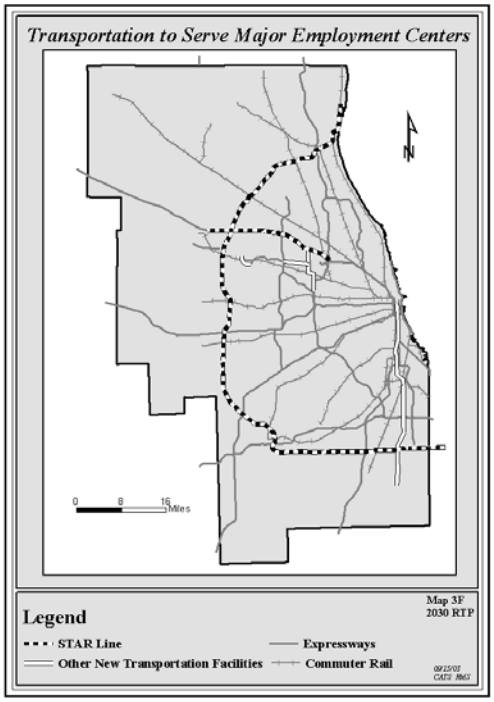
The safe accommodation of pedestrians and bicycles adjacent to the facility and at arterial connections should be included in the project design as appropriate. Particular attention should be paid to non-motorized access to rail stations and bus services.

The western section of the Elgin-O'Hare Expressway project may affect the numerous wetlands associated with the West Branch of the DuPage River on the north border of DuPage County. The project passes through an area that includes threatened and endangered species.

The eastern section of the Elgin-O'Hare project crosses Salt Creek, Salt Creek Marsh and other properties of the Forest Preserve District of DuPage County. The O'Hare Bypass section may affect a concentration of palustrine wetlands in northeast DuPage County. The bypass may also pass through Silver Creek Forest Preserve, a property of the Forest Preserve District of DuPage County, in the northeast section of the county.

Suburban Transit Access Route (STAR)

Figure 47: Suburban Transit Access Route (STAR)



The initial proposal of the Suburban Transit Access Route (STAR) Line is for new transit infrastructure between O'Hare Airport and Joliet. A feasibility study covering the Northwest Corridor portion of the project indicated significant potential for transit ridership and auto diversions in the corridor, especially for work trips.[136]

After an extensive alternatives analysis study by the Regional Transit Authority (RTA) and the Northwest Municipal Conference, the O'Hare to Hoffman Estates portion of the STAR Line was endorsed by both organizations as the locally preferred alternative. The Hoffman Estates to Joliet portion of the STAR Line was also endorsed by the Northwest Municipal Conference as the locally preferred alternative. This locally preferred alternative promotes commuter rail-style service using the Northwest Tollway (O'Hare to Hoffman Estates) and the Elgin Joliet & Eastern (EJ&E) freight rail line (Hoffman Estates to Joliet). Metra, as the project sponsor, will conduct further alternatives analyses consistent with federal requirements. This initial phase represents an integral part of a much larger service, which could include extensions east from Joliet and north from Hoffman Estates. Planning for these future phases of the STAR Line will continue, and should be evaluated for coordination opportunities with other proposed commuter rail improvements.

The project is intended to: 1) provide increased accessibility to communities for suburb-to-suburb and city-to-suburb travel, 2) improve mobility within the corridor, 3) improve access to jobs and major activity centers, 4) spur economic development along the project corridor, particularly at station locations, 5) improve access to O'Hare Airport, 6) expand connections to existing commuter rail lines and 7) relieve traffic congestion and improve air quality.

Close coordination with plans to reconstruct and widen the Northwest Tollway will be necessary. Particular attention should be paid to providing safe walking and bicycling access along and across I-90 from adjoining neighborhoods and feeder bus services to proposed transit services. Management and operations planning should include evaluating opportunities to reduce or eliminate conflicts with freight operations along the EJ&E segment of the line. The RTP recommends that opportunities for transit-oriented

Suburban Transit Access Route (continued)

development be explored at proposed stations to strengthen the transit service. In addition, commuter parking, non-motorized access to stations and feeder bus service are recommended.

The portion of this proposal east of Joliet should be included in evaluations conducted for other plan recommendations in the southern Chicago and the south suburbs multimodal corridor.

In Lake County, the STAR Line project is within the Lake Michigan Watershed, identified as very high priority for protection and/or restoration. The project traverses forest preserves including Old School, McArthur Woods, Cuba Marsh and others, most of which contain threatened and endangered species communities. The project crosses major river and stream systems including the Des Plaines River.

The STAR Line project is also adjacent to three major properties of the Forest Preserve District of north Cook County including Poplar Creek, Paul Douglas and Ned Brown Forest Preserves. The STAR Line project traverses Crab Tree Forest Preserve. The project passes through a concentration of streams and palustrine wetlands associated with the Poplar Creek and Spring Creek Systems and a concentration of threatened and endangered species along the north border of the Ned Brown Forest Preserve and the Crab Tree Nature Center.

In DuPage County, the project traverses major forest preserves, including Pratts Wayne Woods and West Chicago Prairie. The project crosses or is adjacent to major streams including segments of the DuPage River System and Waubonsee Creek. The corridor also abuts the Fermi National Accelerator Laboratory (Fermilab). Cooperation between U.S. Department of Energy and project developers is suggested.

In Will and south Cook County, the project traverses major forest preserves including Higinbotham Woods, Hickory Creek, Butterfield Creek and Thorn Creek. The project crosses or is adjacent to major streams including the Wolf Creek System, the West Branch of the DuPage River, the Des Plaines River and the Hickory Creek system in Will County, and the Butterfield and Thorn Creek systems in south Cook County. The project is within both DuPage River and Lower Des Plaines River Watersheds, which have been identified as high priority and very high priority for protection and/or restoration.

New transportation corridors

New transportation corridors have been identified as a tool for managing the pattern of new urban development or redevelopment. The region is expected to gain nearly two million new households and jobs by 2030. In addition, our region's evolving housing and job market affects the choices of an existing population base of eight million. Major capital transportation investment is recognized as a strong mechanism for encouraging future economic and community location decisions to follow a desirable pattern. Passenger rail corridors are intended to foster compact community development and provide alternatives to auto travel. Multimodal highway corridors are intended to provide high-volume transportation facilities for auto, transit and commercial goods movement.

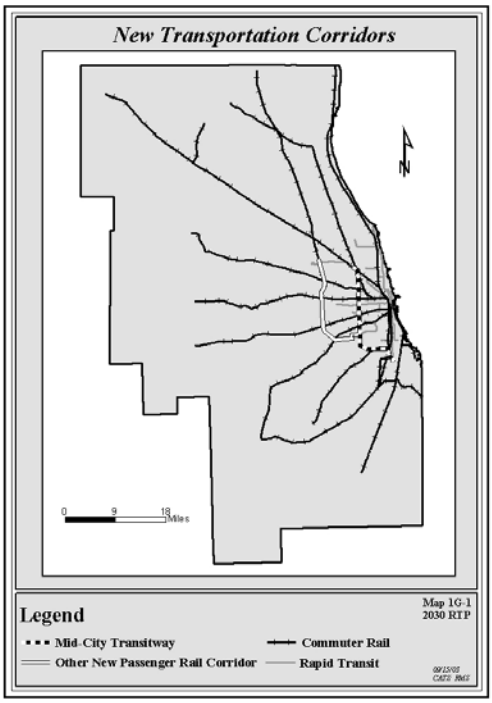
A context-sensitive assessment of the purpose and need for each project will guide evaluation of alternative service levels, facility design and community and environmental priorities

Passenger Rail

Each of the proposals shown in Figures 48 and 49 is intended to establish new high-volume circumferential transit markets as well as integrate service with the region's traditional radial transit system.

Mid-City Transitway

Figure 48: Mid-City Transitway



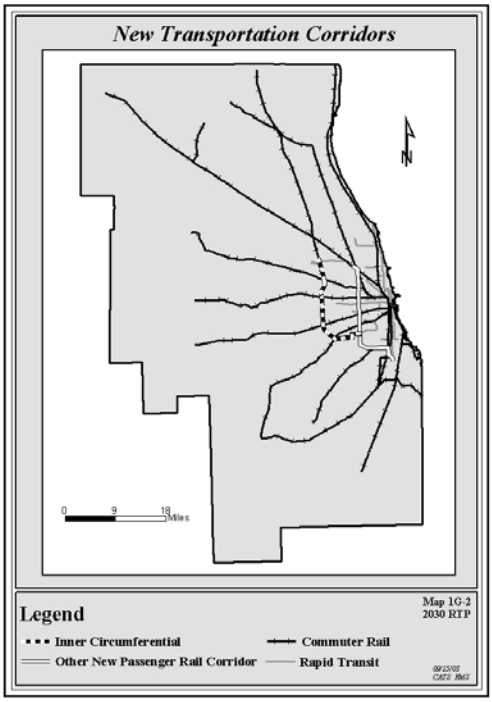
This 21-mile circumferential line will extend from the Jefferson Park station on the CTA Blue Line south to Midway Airport on Union Pacific and Belt Railway right-of-way and then southeast and east along the Belt Railway to the 87th Street station on the CTA Red Line. The line will connect with more than 25 bus routes, several Metra lines and all rapid transit routes except the Yellow Line.

The line will greatly reduce transit travel times between Chicago neighborhoods, especially between the northwest and southwest sides and between the Midway Airport area and the southeast and far south sides. The reductions in travel time are expected to have a considerable impact on reducing reliance on autos, thereby resulting in improved air quality. The project is also expected to enhance economic development in industrial corridors along the route and opportunities for retail, hotel and other development.

Evaluation of alternatives may include a dedicated bus and commercial vehicle facility or providing transit priority on existing streets. Coordination with RTP recommendations for the Southwest Service in the 75th Street corridor as well as freight industry corridors is encouraged.

Inner Circumferential

Figure 49: Inner Circumferential Rail Service



The initial proposal is for a new commuter rail line along the Indiana Harbor Belt Railroad (IHB) in western Cook County between Midway and O'Hare Airports. The facility will provide suburb-to-suburb and north-south travel, plus connections to existing Metra lines between Midway and O'Hare Airports.

In addition to the airport-to-airport link, the project is expected to increase job access and provide non-CBD-oriented commuter rail service to west suburban Cook County.

Management and operations planning should include evaluating opportunities to reduce or eliminate conflicts with freight operations along the line. The project should be closely coordinated with strategic plans for freight rail improvements in the region. The IHB has been identified as a strategic rail freight corridor for the region by the rail freight industry. The RTP recommends that opportunities for transit-oriented development be explored at proposed stations to strengthen the transit service. In addition, commuter parking, non-motorized access to stations and feeder bus service are recommended.

Alternative access to O'Hare is expected to be studied. While the initial proposal is for access to the O'Hare intermodal station in Rosemont, access to the proposed west terminal for O'Hare is also expected to be studied as an alternative. Western access would allow access both to a CTA connection at the proposed new western terminal and the proposed STAR Line.[137]

The project crosses Salt Creek in Cook County and adjacent forest preserve properties.

Multimodal highway

Each of the proposals shown in Figures 50-56 is intended to establish new multimodal corridors. The RTP recommends that new highways incorporate intensive management, operations and design strategies to optimize multimodal operations.

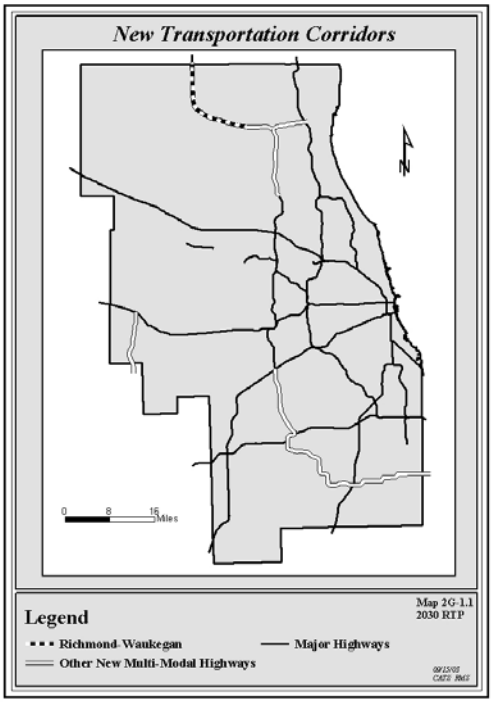
Alternatives evaluation should include a thorough evaluation of the community and environmental and travel demand implications of a wide variety of alternatives, including non-capital and arterial-based solutions. The safe accommodation of pedestrians and bicycles adjacent to the facility and at arterial connections should be included in all project designs. The provision of priority treatments for transit and carpools should also be considered in all appropriate management and operations evaluations.

Transportation demand and system management techniques that provide opportunities to reduce single occupant vehicle travel should be incorporated where appropriate.

New multimodal highway corridors provide an opportunity for creative approaches to context-sensitive design, growth management, community planning and environmental enhancement.

Richmond-Waukegan

Figure 50: Richmond-Waukegan Corridor



The initial proposal is to provide a fully access-controlled highway from the terminus of the US12 freeway at the Wisconsin border to the IL53 north extension near Wilson/Fairfield Road.

This proposal is substantiated by resolution of the Illinois General assembly in 1993 authorizing its study and evaluation by the Illinois State Toll Highway Authority.

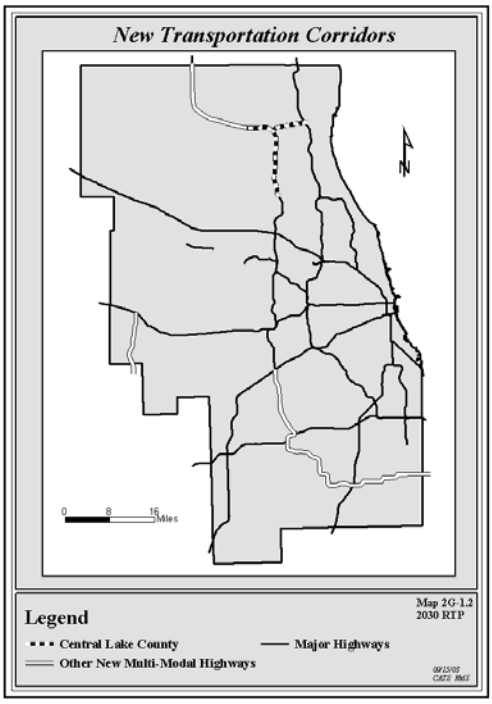
The project is intended to provide increased highway accessibility to western Lake and eastern McHenry Counties.[138]

Consideration of non-motorized travel along and across the entire proposed facility is recommended.

The project is located in the Upper Fox River and Nippersink Creek Watershed, identified as very high priority for protection and/or restoration. The project has high concentrations of palustrine wetlands, streams, and lakes including the Fox River, Chain of Lakes, Volo Bog and Nippersink Creek which contain woodlands and a large number of threatened and endangered species communities. The project is also adjacent to Glacial Park, a McHenry County Conservation District property that also encompasses a high concentration of threatened and endangered species communities. Attention to protecting these unique resources in the project development process is recommended.

Central Lake County

Figure 51: Central Lake County Corridor



During the late 1990s, a comprehensive study of Lake County's transportation needs was undertaken. During the study, the effectiveness of various alternatives to address Lake County's most severe transportation problems was evaluated. This effort resulted in a set of two draft alternative transportation scenarios, one including the IL53 extension with a limited set of arterial and transit expansion and another offering an alternative set of more extensive arterial and transit expansion. The initial proposal is to extend IL53 from its current terminus at Lake-Cook Road to central Lake County. The proposal includes a dual terminus with I-94 to the east and IL120/Wilson Road to the west. The proposal includes additional lanes on I-94 and IL120.

The proposal is substantiated by resolution of the Illinois General assembly in 1993 authorizing its study and evaluation by the Illinois State Toll Highway Authority.

The proposal is intended to provide improved highway accessibility for Central Lake County. Intense development has already occurred in the portion of Lake County that this project would serve. The current terminus of Route 53 at Lake-Cook Road diverts travelers from and through Lake County onto local roadways.

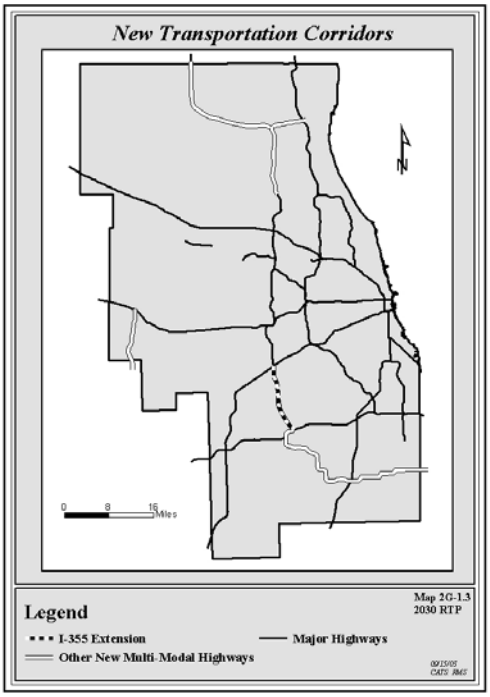
The project crosses areas dense with wetlands, rivers and streams, including the Mill Creek System, the Des Plaines River, Indian Creek and Buffalo Creek in the north-south segment. The project also passes through concentrations of threatened and endangered species especially dense in the east-west segments of the project. The project has been identified as potentially needing extensive environmental mitigation.

The RTP recognizes concerns raised regarding the compatibility of established communities with the traffic and development effects associated with a conventional expressway facility. The proposal is expected to intensify development patterns throughout the county.

Special attention to non-motorized travel along and across the facility is recommended, in addition to the consideration of express transit service along the corridor.

I-355 Extension

Figure 52: I-355 Extension



The proposal is to extend I-355 from its current terminus at I-55 south to I-80 and is intended to provide improved highway accessibility in a rapidly growing part of the region. This project connects to the proposed South Suburban corridor.

This proposal is substantiated by resolution of the Illinois General assembly in 1993 authorizing its study and evaluation by the Illinois State Toll Highway Authority.

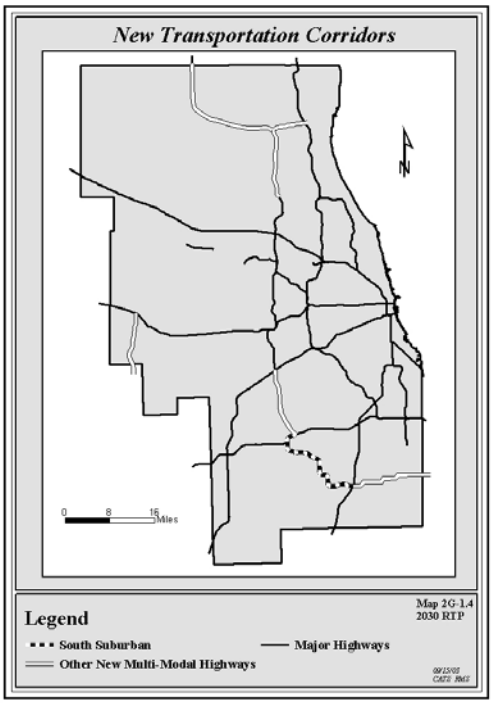
During the lake 1990s, the Illinois Department of Transportation and the Illinois State Toll Highway Authority supplemented the Final Environmental Impact Statement (EIS) for I-355 to address issues requested by the U.S. District Court. This Supplemental EIS went to public hearing in the fall of 2001, and the Federal Highway Administration approved the record of decision on February 25, 2002, recommending the extension as the selected alternative in this corridor.

Special attention to non-motorized travel along and across the facility is recommended, along with the consideration of express transit service.

The project passes through wooded and agricultural areas in northeast Will County. The project also passes through Keepataw Woods and Black Partridge, near concentrations of threatened and endangered species along Will County's northern border with Cook County. The project crosses stream systems associated with the Des Plaines River including Spring Creek and is located in the Lower Des Plaines River Watershed, in an area considered very high priority for protection and/or restoration.

South Suburban

Figure 53: South Suburban Corridor



The initial proposal extends from the proposed I-355 south extension to I-80 east to I-57 in order to connect to the proposed I-57/IL394 Connector.

This proposal is substantiated by resolution of the Illinois General assembly in 1993 authorizing its study and evaluation by the Illinois State Toll Highway Authority.

The proposal is intended to provide improved highway accessibility for rapidly growing northern Will County. Right-of-way preservation should be considered for the project, owing to the rapid development occurring in the area. Alternative systems of arterial improvements should be considered during project evaluation.

Special attention to non-motorized travel along and across the facility is recommended, along with the consideration of express transit service.

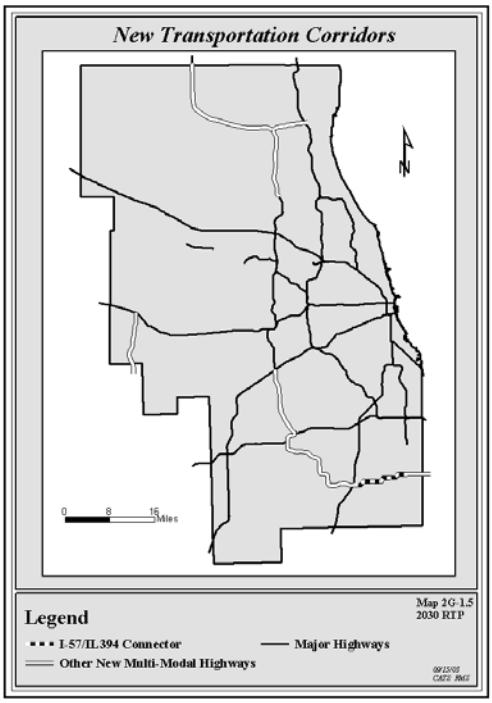
The project crosses and abuts Hickory Creek and the Forked Creek System, which are "B" quality streams in central Will County; Jackson Creek, a "B" quality stream; and Manhattan Creek, an "A" quality stream.

This proposal should be included in evaluations conducted for other plan recommendations in the southern Chicago and the south suburbs multimodal corridor.

The project is within the Lower Des Plaines River Watershed in northeastern and south Will County, identified as very high and high priority for protection and/or restoration, and the Kankakee Watershed in south Will County, considered very high priority for protection and/or restoration.

I-57/IL394 Connector

Figure 54: I-57/IL394 Connector



The initial proposal is to extend the proposed South Suburban extension from its proposed terminus at I-57 east to IL394 in the vicinity of the proposed South Suburban Airport. This project connects to the proposed Illiana Corridor.

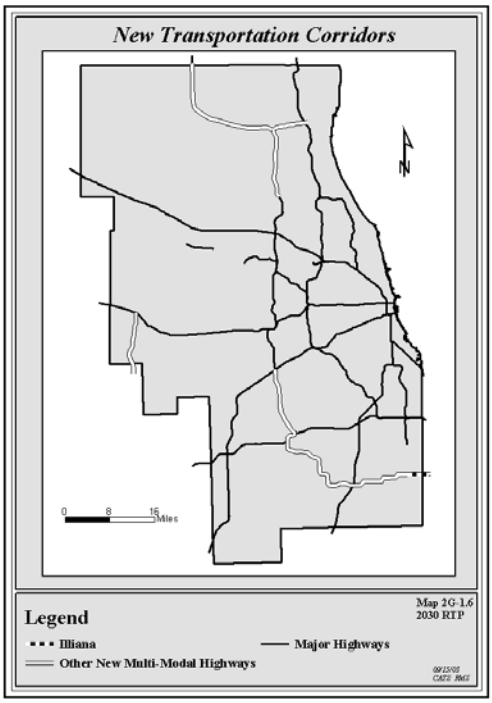
The proposal is intended to provide improved highway accessibility for northern Will County and the South Suburban Airport.

The project is within the Lower Des Plaines and Calumet River Watersheds in central and southeast Will County, which are categorized as very high priority for protection and/or restoration.

The project extends into agricultural areas in south Will County and has concentrations of palustrine wetlands in Will County. The project also traverses the Raccoon Grove Forest Preserve in west Will County.

Illiana

Figure 55: Illiana Corridor



The initial proposal is to extend the proposed I-57/IL394 Connector from its proposed terminus at IL394 east to I-65 in Indiana. The Indiana portion of the facility is under consideration for inclusion in the long-range transportation plan by the Northwest Indiana Regional Planning Commission.

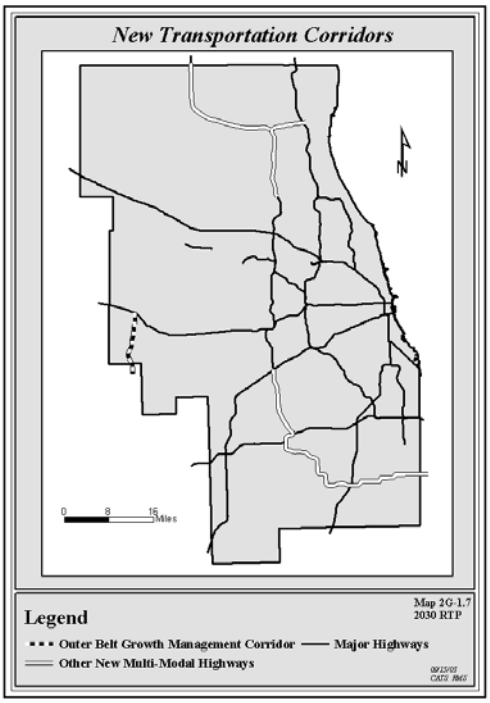
This proposal should be included in evaluations conducted for other plan recommendations in the southern Chicago and the south suburbs multimodal corridor.

The proposal is intended to provide improved highway accessibility for northern Will County and provide a suitable freight route in the area.

The project crosses Plum Creek System in four places, and is identified as a "C" quality stream. The project also passes Goodenow Grove, a Will County forest preserve that includes a high concentration of threatened and endangered species communities.

Prairie Parkway

Figure 56: Prairie Parkway



The initial proposal is to introduce a new highway facility connecting I-80 to I-88 in Kane and Kendall Counties. This portion of Kendall County has experienced rapid growth in the past several years. The Illinois Department of Transportation has recently acted to preserve a corridor in the area, and has initiated a preliminary engineering study. The RTP recommends that alignment, staging and facility alternatives be considered in the study to address community and environmental concerns.

The project is in a watershed identified as very high priority for protection and/restoration in Kane and Kendall Counties. The project also traverses prime farmland. Consideration of farmland protection is recommended.

3.3.3 Implementing the Major Capital Recommendations

Moving toward implementation of a capital project requires elaborating the proposal in sufficient detail to demonstrate that its purpose and need is being met. This will permit detailed project engineering and allow necessary funding to be secured. Readiness can also depend on how quickly a proposal could be implemented either by virtue of being not particularly complicated, being in the advanced stages of planning and design, or possessing sufficiently broad and intense support to become an immediate priority.

Projects that are presently ready for construction comprise the RTP's "Committed Recommendations." These are major capital projects that are currently in the state's five-year construction program or have FTA New Start full funding agreements in place. Approximately $1.3 Billion is already programmed for these recommendations in the current Transportation Improvement Program (TIP).

- Brown Line Rehabilitation
- Blue Line Douglas Branch Rehabilitation (includes part of Phase I of the Circle Line)
- North Central Service Upgrade (Phase I)
- Union Pacific West Elburn Extension
- Southwest Service Union Station to Manhattan (Phase I)
- O'Hare Collector/Distributor Road
- I-90/94 Reconstruction from 15th Street to I-57

- I-80/94 Widening from I-294 to US41

The cost of implementing the remaining RTP major capital recommendations as proposed would certainly exceed available projected financial resources. Without compromising *Shared Path 2030's* assessment of regional transportation benefits, the RTP organizes its recommendations into categories indicating the status of the individual proposals. These categories are defined in a way that demonstrates that the costs associated with the RTP's major capital recommendations are within the bounds of a reasonable projection of financial resources.

The final steps in securing funding for individual projects categories occur during preparation of the region's TIP. The TIP represents an elaborate six-year budgeting exercise in which the long-term recommendations of the RTP are reconciled against the day-to-day task of managing transportation improvements and available funds. Financially constraining the RTP does not duplicate the TIP's budgeting approach, but rather represents long-term "investment planning" in advance of preparing the short-term capital program. The RTP acknowledges that many promising transportation proposals can provide benefit to our region. The RTP's purpose is to provide as much guidance as possible for achieving them, and estimate the progress and pace at which specific improvements can be expected to occur over the longterm.

In programming funds for transportation improvements, the RTP recognizes the importance of striking a balance so that benefits accrue equitably across the region and across racial, ethnic and income groups. The RTP recommends that, in programming

funds for the transportation improvements in this plan, attention be paid to ensuring that transportation funds are equitably allocated.

Early during *Shared Path 2030* a baseline estimate of financial resources available for capital maintenance and expansion of the transportation system was developed. These baseline resources, estimated to be about $54 Billion through 2030, were derived by extrapolating existing revenue streams (i.e., taxes, fees, tolls and fares).

Shared Path 2030 continued with a regional assessment of mobility and accessibility needs in the region. In order to incorporate as many new ideas for improving the transportation system as possible, the future regional scenarios were not financially constrained. The alternative transportation systems compared capital-intensive and non-capital-intensive scenarios. Upon reviewing these alternatives, *Shared Path 2030* made an initial set of plan recommendations combining the strongest and most viable elements of each alternative.

During subsequent deliberations among *Shared Path 2030* participants, there was consensus that the 2030 RTP would need to assimilate a larger list of capital proposals than our baseline estimate of financial resources would permit. Under the baseline financial constraint, very little capital expansion would be possible to accommodate a forecast population increase of two million. The solution was to identify both a reasonable amount of additional revenues, uncertain as to their source, and assign capital recommendations according to categories with differing fund allocations.

In doing this, *Shared Path 2030* assumed that additional needed revenues could be raised in a variety of ways and directed toward a number of types of transportation improvements consistent with RTP goals. This approach is consistent with a growing emphasis in other metropolitan areas and at the national level in employing alternative financing, using market techniques to manage demand and promoting public/private partnerships to leverage transportation improvements.

Shared Path 2030 felt it reasonable to assume that about $7 Billion from new sources[139] could be sought based on a practical desire to construct at least a portion of the proposed major capital recommendations. This resulted in an increased revenue projection of $61 Billion above and beyond the major capital projects already funded in the TIP (i.e., the RTP's committed recommendations). [140]

Of this, an estimated $47 Billion is anticipated to be required to maintain the existing transportation system. This leaves approximately $20 Billion in major capital projects in addition to recommended expansion and improvement of the strategic regional systems. The solution for meeting this constraint, while acknowledging the value of using the RTP to monitor ongoing project development, involved making some distinctions among the plan recommendations.[141]

Beyond the major capital recommendations already programmed in the TIP, the RTP allocates its capital recommendations to four categories:

- Strategic Recommendations
- System Recommendations

- Project Recommendations

- Corridor Recommendations

This allows all of the capital recommendations in the RTP to be represented within the context of the approximately $14 Billion dollars estimated to be available for their implementation. Further study and refinement of all projects in each RTP category should proceed, allowing each project to take advantage of its own rate of progress toward implementation.

Major capital recommendations were assigned to these categories based on project information available during *Shared Path 2030.* It is anticipated that as proposals are refined and gain support, the status of individual recommendations within and between categories can change.

Table 15: Financial Allocation of Recommended Major Capital Projects

Category	**Allocation (in Billions of dollars)**
Committed Major Capital Projects (already funded)	$1.3 B
Capital maintenance and reconstruction estimate	$47 B
Strategic recommendations	$5B
Major Capital Recommendations	$9B
System (quicker turnaround)	$1.9B (45% of 4.2 B in projects)
Project (more ready)	$3.4B (100%)
Corridor (need study)	$3.7B (30% of $12.2 B in projects)

These RTP recommendation categories are elaborated on the following pages

3.3.3.1 Strategic recommendations

Strategic recommendations are comprised of local arterial, transit, bicycle, pedestrian and freight projects that are consistent with the RTP's recommendations for strategic regional systems. The RTP does not specify particular capital projects in this category, but rather gives strategic guidance regarding planning and implementation regionwide. A fixed amount of projected funds is allocated for improvement and expansion of these strategic regional systems under the RTP's multimodal "shared-use" guidance. The RTP allocates $5 Billion toward these recommendations.[142]

Examples of improvements include, but are not limited to:

- Arterial improvements, expansion and extensions
- Bus system improvements, expansion and extensions
- Limited rail operations improvements
- Pedestrian and bicycle accommodations
- Strategic freight accommodations

3.3.3.2 System recommendations

System recommendations are comprised of major capital proposals that can be implemented in a shorter time frame.[143] These are typically recommendations to add capacity and service to existing facilities. Likely projects are expressway/tollway add lanes and passenger rail upgrades. Including a project as a system recommendation does not necessarily imply a nearer-term completion year, but rather indicates that this type of

project can be "made ready" in a period considerably shorter than the full planning horizon or can be implemented in "usable segments" over time.

The RTP recommends pursuing system improvements consistent with the following major capital proposals:

- Union Pacific West Track and Signal
- North Central Service Full Service
- Union Pacific Northwest Track and Signal
- Green Line Enhancements
- Rock Island District Track & Yard
- Metra Electric Service Upgrade
- Elgin-O'Hare widening
- I-55 widening
- I-57 widening
- I-88 widening
- I-90 widening
- I-80/94 widening
- I-80 widening

- I-294 widening

- IL394 widening and extension

3.3.3.3 Project recommendations

Project recommendations are comprised of major capital proposals for which consensus exists on a preferred alternative, but for which project studies, design, acquisition and construction are expected to require many years of concentrated effort to complete.[144]

The RTP recommends the following major capital projects be pursued:

- Circle Line (Phase II)

- Airport Express Rapid Transit

- Orange Line Extension

- Cermak Road Bus Rapid Transit

- DuPage "J" Bus Rapid Transit

- Elgin-O'Hare and O'Hare Bypass

- IL-355 extension

3.3.3.4 Corridor recommendations

Corridor recommendations are comprised of individual or sets of major capital projects for which significant further planning work is necessary.[145] While a readily identifiable

transportation need has been articulated in the corridor, multiple RTP recommendations and their alternatives may require further study to integrate and resolve.

The capital recommendations placed in this category included those for which *Shared Path 2030* participants had argued the need for ongoing discussion of project purpose, need, management, operation and design features.

It should be noted that corridor recommendations have the same standing in the RTP as other category recommendations. The corridor recommendation category is primarily intended to acknowledge the longer-term and more complex planning requirements of large-scale proposals as well as allowing for the continued preliminary planning of smaller-scale proposals. Corridor recommendations enjoying strong public support may be expected to advance quickly through the additional studies needed to prepare a project for implementation.

In advancing a corridor recommendation, the RTP provides significant strategic guidance regarding alternatives, corridor management and operations strategies.

The RTP recommends that corridor-wide transportation improvements be developed in consideration of the following proposals:

Chicago Transit Hub

At the outset, *Shared Path 2030* grouped major proposals for improving circulation and regional transit connections in the Chicago Central Area to build on the immense transit infrastructure investment already in place. Portions of the original corridor proposal appear above as project recommendations. The remaining portions include:

- Circle Line (Phase III)
- West Loop Transportation Center
- Central Area Bus Rapid Transit
- Ogden Avenue Transitway

Adding capacity to existing facilities

Passenger rail upgrades and extensions

Rapid Transit

- Blue Line Extension
- Yellow Line upgrade and extension
- Red Line extension

Commuter rail

- Union Pacific Northwest upgrade and extension
- Milwaukee District North and West upgrades and extensions
- Metra Electric District upgrade and extension alternatives.
- Burlington Northern Santa Fe Plano extension
- Heritage Corridor Full Service
- Southwest Service Full Service and Midewin extension

- Rock Island District extension to Minooka

Increase capacity on existing expressways and tollways

- I-290 High Occupancy Vehicle facility

Expanding the transportation system to manage growth and change

New transportation to serve the region's major employment centers

- STAR Line
- Southeast Service Commuter Rail and alternatives.

New transportation corridors

- Mid-City Transitway
- Inner Circumferential Rail
- Central Lake County corridor
- Richmond-Waukegan corridor
- South Suburban multimodal highway corridor
- IL57/IL394 Connector
- Illiana
- Prairie Parkway

3.3.3.5 Multimodal study corridors

In order to fully integrate the regional strategies, shared-use principles and major capital recommendations, the RTP recommends further analysis and evaluations be conducted, where appropriate, within subregional multimodal corridors. *Shared Path 2030* identified three possible corridors that will benefit from a focused multimodal analysis of all RTP strategic, system, project and corridor recommendations intended to serve them. In turn subsequent regional evaluations will benefit from the findings of these concentrated efforts.

Cook-DuPage multimodal corridor

This corridor, whose principal axis runs due west of downtown Chicago and through central Cook and DuPage Counties, includes major highways (I-290 and I-88), three rapid transit lines (Green Line and two Blue Line branches) and three commuter rail lines (UP-West, BNSF and MD-W). All RTP strategies, combined with several major capital recommendations, should be considered in this study.

RTP system recommendations to include in study

- UP-West upgrade
- MD-West upgrade

RTP project recommendations to include in study

- Cermak Bus Rapid Transit
- DuPage “J” Bus Rapid Transit

RTP corridor recommendations to include in study

- I-88 add lanes
- Ogden Avenue Transitway
- Blue Line Extension
- I-290 High Occupancy Vehicle facility[146]
- Inner Circumferential Service

Southern Chicago and the south suburbs multimodal corridor

This corridor, whose principal axis runs due south of downtown Chicago and through southern Chicago and Cook County into the developed portions of northern Will County, includes major highways (I-90, I-94, I-57 and IL394), rapid transit lines (Red and Green Lines) and commuter rail lines (Metra Electric, Rock Island). All RTP strategies, combined with several major project recommendations, should be considered in this study.

RTP system recommendations to include in study

- Metra Electric District upgrade and extension alternatives
- Green Line enhancements
- I-294 south widening
- I-394 widening and extension

RTP corridor recommendations to include in study

- South East Service Commuter Rail and alternatives
- Red Line extension
- STAR proposal (east of Joliet)
- South Suburban Corridor
- I-57/IL394 Connector
- Illiana

Outer belt growth and transportation management corridor

The RTP recommends a comprehensive growth and transportation management study be conducted in order to develop a unified transportation and land use concept beyond the region's current urban fringe. The study area would focus on Lake, McHenry, Kane, Kendall and Will Counties, but would incorporate transportation and land resource consideration in bordering counties. Within our planning region and certainly within view of the most rapidly growing parts of the region, transportation's role in influencing and anchoring the region's outward growth should be established. By fully including super-regional objectives such as community planning, parkland development, agricultural preservation and natural resource potential, this is an opportunity to employ transportation resources to positively influence the region's sustainability.

[1] Northeastern Illinois, in this case, includes the counties of Cook, DuPage, Lake, Kane, McHenry and Will, plus a portion of Kendall County.
[2] The RTP is being prepared to meet federal transportation funding requirements, specifically, "to encourage and promote the safe and efficient management, operation and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and through [the] urbanized area." 23.USC.134.
[3] An estimated 13% of the demand for highway lane capacity in northeastern Illinois comes from commercial vehicles.
[4] Short-range capital budgeting is accomplished through CATS' Transportation Improvement Program (TIP).
[5] It should be noted that inclusion of a new South Suburban Airport was assumed in all *Shared Path 2030* evaluations at the request of both the City of Chicago and the State of Illinois. Planning for the airport itself occurs at the discretion of the State of Illinois.
[6] While *Shared Path 2030* accounts for the effects generated by the region's aviation activity and commercial goods movements, planning for airports and freight facilities themselves is not an implementation element of this plan. The RTP also includes policy guidance and strategy recommendations for encouraging bicycle and pedestrian travel but, again, making project recommendations for specific "non-motorized" improvements is not an implementation element of the plan.
[7] 23.USC.134(g)(2)(B) in lieu of TEA-21 regulations.
[8] 40.CFR.93.
[9] It is important to note that in spite of this constraint, there is a recognized value in illustrating the gap between our transportation needs and an otherwise conservative estimate of the financial resources available to meet them. An important purpose of highlighting this fiscal constraint is to demonstrate the importance of attaining new and additional financial resources for transportation system maintenance, improvement and expansion.
[10] CATS, Report to the Regional Transportation Plan Committee on Projected Transportation System Revenues and Expenses, 1997. Report revised 2000. Projections revised ongoing based on TIP.
[11] CATS, Operation GreenLight, 1st Annual Report, 1990, p. ii-iii.
[12] *Shared Path 2030* assumes that construction of some new facilities (both highway and transit) will be financed with user-generated revenues. This might include, but is by no means limited to, traditional tax, toll and fare arrangements.
[13] These funding sources, depending on their point of collection, can be identified as "highway"or "transit" revenues. In this exercise, approximately $36.9 B will be available from traditional highway sources and $24.4 B will be available from traditional transit sources. It is important to remember that this distinction is largely statutory and does not necessarily imply that all of the funds be directed exclusively back to their source (though some must). In allocating these revenues, the RTP emphasizes improvements serving a variety of travel needs, providing transportation choice and supporting regional goals.
[14] IEPA, Revision to the State Implementation Plan for the Chicago Ozone Nonattainment Area: Motor Vehicle Emissions Budgets Using Mobile6, March 2003.
[15] CATS, Shared Path 2030 Process Documentation, Concept Scenario Investigation.
[16] For a more thorough discussion of this topic see CATS, Shared Path 2030 Process Documentation, Concept Scenario Investigation.
[17] Chicago is the third largest port in the world after Hong Kong and Singapore.
[18] Originating with CATS' Intermodal Advisory Task Force.
[19] These are the basic principles of emerging federal and state guidance under the heading "context sensitive solutions" as applied to transportation facilities.
[20] Apgar, William C. and James H. Brown, Microeconomics and Public Policy, Scott Foresman, 1987. Equity = The fairness or equality of the distribution of the economic system's goods and wealth. Externality = The unintended social effects, desirable or undesirable, of production or consumption.
[21] FHWA/FTA Memorandum, "Implementing Title VI Requirements in Metropolitan and Statewide Planning," October 7, 1999.
[22] Chicago Wilderness, Biodiversity Recovery Plan, 1999.

[23] Planning practice draws a distinction between two planning approaches. Comprehensive planning is "vision"-based, institution-oriented and is intended to resist "reaction" to short-term pressures in favor of maintaining the integrity of long-term goals. Strategic planning is "action"-based, business-oriented and encourages quick changes in strategy to achieve a narrower set of objectives. Long-range goals and objectives usually follow the comprehensive model. Some participants suggested a more strategic planning approach in which goals would be more specific regarding their ends (e.g., provide more transit, reduce auto travel, add bike lanes).

[24] Preferences are revealed in two important ways: 1) Stated preference = the objective of public involvement is provide a continuous dialogue between transportation users, operators, planners and policy makers. 2) Revealed behavior = the objective of transportation surveying and forecasting is to provide information on actual/estimated transportation decisions in response to changes in the urban economy.

[25] Institutional influences = establish a "division of labor" for addressing large social questions. Though often viewed as unwieldy and bureaucratic, institutions provide a buffer against the vagaries of politics and the market.

[26] In a "textbook" rational-comprehensive planning model, "objectives" are "quantified standards" which articulate the "criteria" by which "alternatives" are "evaluated." It is widely recognized that this strict interpretation of decision-making oversimplifies the task at hand, thus the more general treatment of "objectives" in regional planning work. In this context, while regional objectives might give specific examples of approaches or outcomes, they will typically not provide a direct and decisive link to a specific standard of performance.

[27] For example, while rebuilding a rapid transit line may on its face may appear to be a maintenance project (goal 1), it may garner broader support from the plan by identifying ways in which it will improve the level of transportation service (goal 2) and improve air quality and economic development (goal 3). Another example: an expressway reconstruction project (maintenance) may include introduction of ITS strategies (improvement) and correct some safety deficiency associated with the original design (public health and safety).

[28] This is intended to compensate for point-source "credits" that may have been acquired through a pollution control offset program.

[29] I.e., the necessity of owning and maintaining an automobile.

[30] While many transportation functions were considered in *Shared Path 2030's* assessment of the regional transportation system, evaluation measures were defined in terms of the policy direction the RTP is permitted or intended to provide. This involves primarily the publicly owned surface transportation system that is used on a daily basis by residents to travel within the region. It should be noted that inclusion of a new South Suburban Airport was assumed in all *Shared Path 2030* evaluations at the request of both the City of Chicago and the State of Illinois. Planning for the airport itself occurs at the discretion of the State of Illinois.

[31] Public outreach conducted during July and August 2002.

[32] Passenger rail options include light and heavy designs. Light design includes trolley or bus-like vehicles operating singly or coupled into small sets. Light design often shares right-of-way with the highway system. Heavy design includes train-like vehicles that operate on exclusive rail right-of-way, may run on elevated tracks or subways and may involve sharing facilities with several operators, both freight and passenger.

[33] While *Shared Path 2030* supported regional strategies for improved commercial goods movement, specific proposals for improving freight operations were not evaluated against the same mobility and accessibility standards as person travel.

[34] Each of *Shared Path 2030*'s thematic alternatives is anchored to a regional land use assumption about additional air capacity in northeastern Illinois. In September 2002, a policy agreement by the City of Chicago and the State of Illinois defined, for long-range planning purposes, an air capacity scenario prescribing three major airports to serve northeastern Illinois: O'Hare, Midway and a new south suburban airport to be constructed in Will County. This agreement was the basis for an initial 2030 forecast of the geographic distribution of households and employment under a "transportation no-build" scenario, that is, assuming the prescribed rearrangement of air capacity, but assuming no other new transportation improvements in the region.

[35] Note: 2000 Population includes group quarters. 2000 Minority = 2000 Population - Non -Hispanic Whites.
[36] This method also bridges the mismatch between the environmental justice objective of evaluating benefits and burdens to minority persons and the practice of estimating travel behavior based on household characteristics.
[37] Originally, the RTA proposed that FTA New Start full funding agreements be in place in order to qualify as a system commitment. FTA requested that the RTP committee expand the definition enough to include the CTA Brown Line rehabilitation, the funding agreement for which was considered imminent.
[38] As of January 2003, the full funding agreement was not finalized. USDOT assured that it could safely be considered approved.
[39] This connector is also provides for "Phase I" of the RTP's recommended Circle Line project.
[40] While of intense interest to project sponsors, project measures themselves become problematic because they seem to encourage evaluating projects in a vacuum. Project level performance is highly dependent on regional context; attempting to discern the performance of a single project when tested as part of a regional scenario leads to confusion and misinterpretation. In the final 2020 RTP discussions, projects were being "sized-up" in terms of their final demand rather than in light of their effect on system performance or underlying assumptions.
All RTP projects proceeding toward implementation are subjected to further demand analysis as part of special project studies, sub-area implementation plans and design/environmental studies. It is at these later stages of intense scrutiny that proposals are given operational and contextual consideration that has the greatest effect on demand. For each network proposal, 2030 no-build trip tables based on the existing transportation system were assigned over a network, with a single network proposal coded. The principal measure derived was "number of trips served," a partial indicator of benefit. Number of trips served reflects the total travelers using a facility because, all other things equal, there is no better alternative route. A full assessment of benefit requires a system measure to reflect advantages accrued by other users who may enjoy more choices and lower costs as a result of introducing a new facility that they, themselves, do not actually use.
[41] "Proposal Champions" are *Shared Path 2030* participants that agreed to provide details about and argue for inclusion of the proposal in the RTP.
[42] Rational = maximizing benefits of an action subject to constraints. Defining some of the evaluation terms at the outset allows transportation evaluation measures to be more succinctly discussed. Some basic definitions are offered below. It is not the intent to over-simplify the decisions at hand or over-rationalize the techniques used. Agreeing on the use of these words, however, provides useful shorthand when discussing larger public policy concerns.

- Utility — the value derived from making a transaction. In transportation, utility is typically associated with engaging in some activity after completing a trip.
- Cost — constraints on utility. In transportation, needing to travel is typically considered a cost.
- Benefits — utility gains.
- Burdens — utility losses.
- Efficiency - benefits are maximized and burdens are minimized subject to costs.
- Equity — benefits accrue and burdens are mitigated according to a prescribed fairness standard.
- Externalities — benefits/burdens that result from, but are not directly attributable to, the utility being evaluated.

[43] While evaluating user benefits is important to assessing the equity and efficiency of improvements to the mobility and accessibility of individuals, system performance measures are intended to be of greatest use at the regional level. Thus, system performance measures typically take the form of a single value that can be fairly attributed to the entire region.
[44] PEF is presently defined as the average number of local blocks in a zone.
[45] A regional measure of socioeconomic concentration is summarized here as "% trips in Chicago" in order to give an overall indication of the level of regional decentralization being fostered by the transportation system. This is different and does not undermine RTP strategies in support of compact development patterns region-wide.
[46] Including electricity.

[47] NIPC, Natural Resource Impact Analysis: Summary of Natural Resource Features of Projects Proposed for the 2030 RTP, Draft, 2003.
[48] The subregional geography stratification consists of the traditional Chicago/County breakdowns. Separate stratification for assessing mobility and accessibility are also reported for high-demand multimodal corridors.
[49] The travel models optimize travel choices and do not account for imposed imbalances such as limited suitable job opportunities that require onerous reverse commutes for transit captives or third-shift conflicts with bus-operating schedules.
[50] These data may be more thoroughly presented as continuous travel time distributions for each stratification. Reviewers comment, however, that these distributions are difficult to interpret.
[51] For example, the 2000 Edition of the 2020 RTP estimated that approximately $80 million of the $136 million cost of implementing the Strategic Early Deployment Plan could be available by 2020. This value was not counted against the projected 2020 revenues available for capital construction and maintenance (p.91).
[52] Specifically, the reduction of auto use for very short trips.
[53] Employment centers, commercial facilities, and multi-use activity centers that generate and attract thousands of daily trips and establish noticeable peaks in demand.
[54] Pedestrians, bicycles, autos and freight.
[55] Through the coordination of transportation planning and land development activities.
[56] Variety=alternative to private auto. Appropriate=demonstrating a balanced cost/benefit ratio.
[57] individually and through intergovernmental agreements.
[58] With regard to transit: emphasizing minimal out-of-vehicle and wait time.
[59] One useful method is transit-oriented development in the near vicinity of commuter rail or rapid transit stations.
[60] For new construction as well as rehabilitation and improvement projects, through a collaborative interdisciplinary process that integrates and balances community, aesthetic and environmental values with traditional transportation safety and performance goals.
[61] http://www.fhwa.dot.gov/csd/qualities.htm.
[62] NIPC, Transit-Oriented Development, January 2001.
[63] Design transportation landscaping to enhance biodiversity, improve water quality, better manage stormwater and appear natural.
[64] The RTP's definition of "maintenance" is explicated in its goal "Maintain the integrity of the existing transportation system." This a more profound definition than "day-to-day maintenance" which includes pavement repair, snow removal, landscape care, etc.
[65] This does not include capacity additions intended primarily to accommodate excess highway demand. Proposals of this type that add lanes to expressways and tollways are considered separately as major capital projects that are specifically identified.
[66] I.e., a major interchange between one expressway/tollway and another expressway/tollway.
[67] Transit and carpool priorities can discourage single-occupant vehicles. Commercial vehicle priorities can reduce conflicts between trucks and autos. Value pricing priorities can equilibrate costs and benefits to classes of users.
[68] For example, variable message signs, traffic and pavement condition surveillance monitors, communication towers, ramp meters, toll collection, hazard alerts and advanced truck credentialing contribute to efficient highway operations.
[69] For example, travel information kiosks, active transit station signs, vehicle tracking, signal preemption and electronic fare collection.
[70] The role transportation plays in promoting public security is also the subject of regulation enabling specific research in this area. Growing concern over transportation system security indicates that direct federal and state control over transportation system safety and emergency preparedness will continue to increase (23USC403 (a)).
[71] 23USC402 (a).
[72] 23USC134 (f).
[73] Recent major highway reconstruction projects on I-290 and I-90/94 included facilities redesigned to greatly enhance safe vehicle operation.

[74] USDOT, 2002 Certification Review of Transportation Planning in Northeastern Illinois.
[75] Separation does not necessarily imply exclusion. The objective is to safely accommodate all relevant modes while not disrupting or discouraging the use of adjacent modes. A strategic focus during alternatives evaluation included improving the pedestrian environment adjacent to expressway facilities.
[76] Almost all TIP projects have multiple work types, and the explicit safety work types (like barrier, guardrail, shoulder, skidproofing) are usually a fairly minor part of the overall scope of the project.
[77] Most approaches reviewed correlate forecasted congestion levels to a probability that some conflict in traffic will cause a crash. This does not seem useful or appropriate here.
[78] STPP, Safe Routes to School, 2002 Summary, www.transact.org.
[79] For example, research conducted by the Federal Highway Administration for the study called "Traffic Operations Control for Older Drivers" indicates that crashes experienced by elderly drivers seem to happen disproportionately while turning left or right at intersections, as compared to their middle-aged counterparts. According to the Federal Highway Administration's *Highway Design Handbook for Older Drivers and Pedestrians* (FHWA-RD-01-103), the 65 and older age group, which numbered 34.7 million in the United States in 2000, will grow to more than 36 million by 2005 and will exceed 50 million by 2020, accounting for roughly one-fifth of the population of driving age in this country. In effect, if design is controlled by even 85th percentile performance requirements, the “design driver” of the early 21st century will be an individual over the age of 65.
[80] Metra, Key Station Accessibility Plan, July 1992. CTA, Chicago Transit Authority Rail Plan to Meet Requirements under ADA, July, 1992.
[81] This eases driving through adjustments to distances and angles. Special attention to at-grade intersections, interchanges, construction and work zones, roadway curvature and passing zones and highway-rail grade crossings.
[82] Provided to the driver by signalization, signage and pavement markings.
[83] The Chicago region is the largest intermodal freight processing center in the world with more than 6 major rail companies operating 21 intermodal freight hubs, many of which are located in the region’s south corridor. CATS, Chicago’s Intermodal Freight System: A vital global crossroad. Tri-fold brochure, 2003.
[84] USDOT encourages that these planning processes be integrated so that the freight contributions to the economic health of regions receive parity with personal mobility concerns. (USDOT, The Freight Story, November 2002).
[85] CREATE Plan, 2003.
[86] CATS, Strategic Early Deployment Plan for Northeastern Illinois, June 1999.
[87] Many agencies have either already established, or are in the process of establishing their own transportation management centers (TMCs). Examples include IDOT’s Traffic Systems Center, Metra’s Consolidated Control Facility, ISTHA’s Traffic and Incident Management Center, the Illinois Transit Hub, Chicago Traffic Management Center, and other county and regional management centers.
[88] Gateway Traveler Information System (TIS). The Gateway TIS is a distributed system with regional hubs in Illinois, Wisconsin and Indiana that collects and distributes transportation data. The Gateway TIS will integrate existing management centers, such as the IDOT Traffic System Center, IDOT Emergency Traffic Patrol, IDOT Communications Center, and ISTHA Traffic and Incident Management Center. It is designed for future connections with the Illinois Transit Hub, Chicago Traffic Management Center, and other county and regional management centers.
[89] The Illinois Integrated Network for Operations Program (I2NFO: I2NFO builds on the extensive ITS project and facility deployment within the region over the past 40 years and allows for the capturing of key advantages in operations management now becoming possible due to emerging technologies such as digital mapping, location devices and wireless communication. Combined with existing and planned regional ITS monitoring capabilities, I2NFO will create an information structure capable of meeting the needs and expectations of operators and travelers in Northeastern Illinois. I2NFO would be the program by which operators enhance and expand physical facilities. Provision of field measuring devices would be accelerated through the deployment of additional capital facilities and technologies as well as the development of active (real time) transportation system and software development. I2NFO will integrate transportation agencies’ Traffic Management Centers to coordinate the transportation planning for the Northeastern Illinois Region.
[90] CATS, Congestion Management System for Northeastern Illinois, May 2002.

[91] For example: parking management, HOV parking, rideshare Programs, employer tax incentives, flex-time and telecommute work options.
[92] The Regional Transportation Authority is preparing this plan.
[93] A strategic regional expressway system (SRES) was originally included in this set to provide guidance for expressway reconstruction projects. This guidance will now be included in the plan's discussion of maintenance and reconstruction priorities.
[94] The 2000 Edition of the 2020 RTP allocated $1.14 million to SRA expansion, $4.55 billion to SRA capital maintenance and $1.024 billion for SRT improvements (p.54 and 59).
[95] Examples of accommodation and encouragement include sidewalks, easy transit access for pedestrians, bike lanes/paths, vehicle traffic separation and truck or bus priorities.
[96] Loosely adapted from: The Regional Road Corridor Design Guidelines assembled by the Region of Ottawa-Carleton (2000).
[97] Pedestrians and bicyclists are more vulnerable to injury when in close proximity to vehicles. Vehicle and roadway safety design standards are heavily documented, replete with warrants and rules. *Shared Path 2030* avoids repetition of established practice, instead emphasizing policy direction over which we have some discretion.
[98] Community use implies shorter and more discretionary trips. For short trips, efficiently overcoming distance obstacles is a greater challenge.
[99] The land use should come to the bus, or the bus should go to the land use.
[100] The *2010 Transportation System Development (TSD) Plan*, adopted in 1989, introduced a Strategic Regional Arterial (SRA) System intended to advance a comprehensively developed design concept, conduct community-based studies for arterial improvements and help prioritize arterial improvements regionwide.
The recommendations from individual studies focus on improvements to relieve bottlenecks at intersections, provide alternatives to on-street parking and improve low structural clearances. In developing parts of the region, expansions of existing roads, new construction and corridor traffic management strategies were recommended to accommodate growing traffic and serve major trip generators. Right-of-way preservation, signal coordination, new turn lanes and medians provide for better traffic control and access on suburban arterials. In rural areas, preserving through-movement of traffic so as not to disrupt the character of the area is the priority. The ability to preserve right-of-way and control access are used to minimize disruption and provide for future needs. Strong land development policy is critical to preserving the integrity of the strategic regional arterials in suburban and rural areas.
The *2010 TSD* SRA System comprised a designated subset (about 1,400 miles) of the existing arterial network. Spacing ranged from about three miles in the more densely developed areas to eight miles in the rural areas. This designated subset provided the base upon which to conduct detailed community-based studies over a period of about 10 years. These studies were still underway during *Destination 2020*, but are now, by and large, completed.
At this point, the designation of a particular part of this "system" has diminished. During *Destination 2020*, comments and concerns often focused on an arterials "designation" as an SRA, rather than any solutions that intensive planning and design studies could offer.
[101] The conflict between freight and commuter rail traffic and vehicular traffic at heavily used at-grade crossings creates delays for both highway and rail traffic. In some communities, these delays have a significant impact on local traffic and create major safety concerns as crossings are blocked for long periods of time.
[102] At present, a significant number of tollway interchanges are configured in a manner that only allows traffic to enter and exit from one direction. This creates a situation where traffic must travel significant distances from their origins and destinations to reach the tollway, placing a significant burden on local roadways.
[103] CATS, Transportation System Development Plan, 1989.
[104] IDOT, SRA Design Concept Report, 1991(?).
[105] These reports were published individually. CATS is a repository for the entire set.
[106] The Will County routes are acknowledged in response to dramatic 2030 growth forecast by the Northeastern Illinois Planning Commission in this area and the planning opportunities offered by the proposed South Suburban Airport and redevelopment of the Joliet Arsenal site. Today, this area remains

quite rural, but the transportation and land use pressures that urban growth brings are evident only a few miles away.

[107] This is an extension of the currently designated SRA: Manhattan-Monee Road from US45 to IL1 in Will County.

[108] A Strategic Regional Transit (SRT) system was introduced in the 2020 RTP. The SRT system was defined as an "integrated network of existing high capacity rail and bus services vital for mobility, congestion relief and economic development." The SRT concept was modeled after the RTP's SRA system, an element of Operation Greenlight. The SRA system institutionalized itself largely because of IDOT's commitment to fund 10 years of planning studies of each SRA route. The 2020 RTP declared that this would occur for the SRT system, but there is no supporting documentation for this.

[109] Skip-stop routes reduce in-vehicle time. Longer bus routes can reduce the need for transfers.

[110] 23 USC 217 (g)

[111] Level of service guidance applied during roadway engineering and land development should be employed. Appropriate MUCTD and AASHTO references are available.

[112] NIPC, Regional Greenways Plan update, 1997.

[113] Air quality can be improved by reducing truck interference with automobile traffic.

[114] Such as the Upper Midwest Corridor study and the tri-state G-C-M Corridor CVS program.

[115] When rail improvements are made on behalf of commuter rail users, the evaluation of costs and benefits should include the impact on rail freight operations. Likewise, when freight rail improvements are made, the impacts on commuter services should be considered.

[116] A set of strategic improvements is available from CATS Intermodal Advisory Task Force. It calls for a minimum of 50 grade separations to completed within 10 years and provides other specific guidance.

[117] Establishing dedicated corridors between the region's major freight facilities may be an appropriate solution. See IATF discussions of the Chicago Gateway proposal.

[118] These contribute to the region's position as "gateway" to national and international goods markets by improving approximately 55 miles of highway that have been identified as "intermodal" connectors. These connectors are specifically designed for heavy truck use and are not intended to function as "shared-use" facilities.

[119] It is the major projects that draw the most attention because of the large expenditure of time and dollars required as well as the significant effect they have on mobility and accessibility. In spite of any regional travel benefits they provide, they are most often debated in terms of the equity and externalities associated with their location in the region. Not possessing the universality embodied in the RTP's strategy and system recommendation, it is these major capital projects which *Shared Path 2030* considered with the most discretion.

[120] *Destination 2020* discussions occasionally digressed into a "battle of the project numbers." It should be recognized that high traffic volumes or high ridership on a single facility do not necessarily equate to a regional benefit.

[121] The RTP is vulnerable to criticism when new major capital projects "appear" in subsequent updates, while no progress toward implementation can be demonstrated for the original recommendations. A clear expectation should be made that an RTP recommendation means a commitment to steady demonstrable progress toward implementation in the time-frame of the next update (3-5 years).

[122] For example, a *Shared Path 2030* proposal suggested including a "cap" in the design of the I-290 HOV project through Oak Park.

[123] For new construction as well as rehabilitation and improvement projects, through a collaborative interdisciplinary process that integrates and balances community, aesthetic and environmental values with traditional transportation safety and performance goals.

[124] By avoiding or mitigating negative effects on groundwater recharge areas, historic and cultural sites, greenways and water trails, agricultural lands, recreation areas and other valuable natural resources. Also by using natural swales, "daylighting" storm sewers, encouraging natural or engineered water infiltration techniques, employing "zero-discharge" standards, avoiding seeps, springs and organic soils when selecting alignments, use deep-rooted vegetation to control erosion and creating wide buffers for wetlands, streams and drainage corridors.

[125] These can help provide habitat for native and natural plant communities and continuous corridor travel routes for wildlife.

[126] An implementing agency should examine the Congestion Management System (CMS) Handbook as an informational resource to enhance their respective capital projects. The Handbook represents an expanding range of options that an implementing agency can identify, evaluate and, as appropriate, include in its project design or implementation. The MPO process should provide a forum for the various agencies to coordinate project policy planning, development, evaluation, acceptance and monitoring.
[127] USDOT presently requires the RTP to be updated every three years.
[128] City of Chicago, Central Area Plan, 2003.
[129] Major watershed boundaries are from the United States Geological Survey, with watershed classifications from the Biodiversity Recovery Plan, 1999. The priority watersheds are classified as *very high priority for protection and/or restoration; high priority for protection and/or restoration; rehabilitation; or enhancement. For the purposes of this summary, watersheds were noted only if they fell into the high or very high priority categories.*
[130] Stream Classifications are from the Biological Stream Characterization developed by the Illinois Department of Natural Resources and the Illinois Environmental Protection Agency. The streams included in this project are those streams that have the richest concentrations of biodiversity: A, B, and C quality streams. "A" quality streams are identified as Unique Aquatic Resources and "B" quality streams are identified as Highly Valued Aquatic Resources. These two classifications are for streams with the richest concentrations of biodiversity. "C" quality streams are identified as Moderate Aquatic Resources, which are more degraded streams that have opportunities for restoration to higher quality.
[131] Examples are elaborated in the "Gray Line Proposal" submitted during *Shared Path 2030* public outreach.
[132] Attention should be paid to ensure that additional lanes and interchanges on I-88 do not exacerbate the lane balance problem at the I-290/I-294 interchange that the Hillside Bottleneck project was designed to alleviate.
[133] DMMC, DuPage Area Transit Plan 2020, October 2002, p. 30.
[134] Access control can be enhanced by "backage roads" (access facilities set behind adjacent developments to reduce traffic conflicts near the arterial facility and to preserve right-of-way options adjacent to the arterial facility) and requirements that adjacent developments include motorized and non-motorized access to adjoining land uses, rather than relying strictly on arterial access.
[135] To accommodate multimodal travel, Thorndale Avenue might be considered as a multimodal boulevard as an interim step until full funding is available for the expressway and rail service. An expedited boulevard treatment could quickly meet some of the demand for east-west travel in DuPage County. In addition, widely spaced east- and west-bound road segments would facilitate innovative treatments of left-turn vehicles to reduce signal delay, while avoiding or delaying the expense of grade-separating the roadway. A right-of-way up to several hundred feet wide exists to accommodate this interim step. It will also provide a substantial part of the right-of-way for final construction.The Elgin-O'Hare is proposed to feed into a western bypass of O'Hare International Airport.
[136] RTA, Northwest Corridor Feasibility Study, 2000.
[137] The Inner Circumferential line has been identified as a possible future phase of the STAR line.
[138] Interim improvements to meet accessibility and mobility needs pending long-term project development are suggested. Interim improvements may include bypasses of McHenry and Richmond that are consistent with long-term development of a through facility.
[139] Through traditional mechanisms such as tolls and fares or through innovative mechanisms such as value pricing and public private partnerships.
[140] Highway resources=$36.9 B ($8.9B from self-supporting facilities), Transit resources=24.4 B from 2004 to 2030. Municipal and county funds are not included in these totals.
[141] Note that projected funds are allocated to categories of RTP recommendations, not specific projects.
[142] This would most often take the form of a "shared-use" arterial proposal that incorporated strategies for each system. It was estimated that designing a four-lane full "shared-use" arterial might cost as much as $8.5 Million per centerline mile (pcm) to develop. This includes $1.8M pcm for fixed pavement elements such as right-of-way preparation, excavation, substrate, pavement, curb and gutter, etc., $500K for signals, $141K pcm for additional truck-bearing construction, $761K for urban drainage, $2.5M pcm for transit elements such as BRT stations, $1.6M pcm for bicycle and pedestrian accommodations such as bike lanes, sidewalks, refuges and signals, $1.2M pcm for arterial ITS such as signal interconnects and "smart

corridor" elements. A six-lane arterial designed to the same level is estimated at approximately $9.4M pcm. Providing additional bus service was estimated to cost approximately $300K per bus. Cost economies can be achieved by combining some or of these modal improvements into a single shared-use design. All accommodations may not be appropriate in all cases and the necessity of providing grade-separations for any mode (including bicycle and pedestrian) dramatically increases the cost. Overall, it was estimated that $5B would cover upgrading approximately 250 centerline miles of arterials to a full shared use design and implement significant portions of CTA neighborhood express and Pace Vision 2020 bus service proposals.

[143] Right-of-way in place and a pattern of demand and deficiency established and understood. The idea is to recognize that some projects are less complicated and can be turned around more quickly.

[144] This is, essentially, how all recommended projects in the 2020 RTP were treated.

[145] Examples include development or refinement of a preferred alternative or multimodal coordination scheme.

[146] Including consideration of an expressway "cap" sensitive to the context of adjacent communities. Fore example, see "Citizen Committee Report on Capping the Eisenhower Expressway in Oak Park," Village of Oak Park, February 2003.