Matrix of CMAP partners & committee's comments on RTP Update – 5-9-07

Commenter	Summary of point	Appropriate to RTP Update/ other discussion or issues	Suggested Disposition
CMAP's E&NR Comm. -1	The RTP should incorporate and require an interdisciplinary approach to coordinate and integrate with all Transportation and other Professionals at the planning and project levels	This idea is evident in text of section 1.4.3 (p22) and sect 3.1.1. (p31) but could be considered further in the Comprehensive Plan development.	Encourage involvement in CMAP's 2040 Comprehensive Planning efforts, point out existing references.
E&NR - 2	A scientific approach that includes ecological principles and a systems approach should be integrated into decision making at all planning and project levels addressing land-use/transportation decisions.	This concept is implicit in the Environmental strategies listed in 3.1.2. but could be considered further in the Comprehensive Plan development.	Encourage involvement in CMAP's 2040 Comprehensive Planning efforts, point out existing references.
E&NR - 3	The RTP should include language that stipulates inclusion of expertise and competencies that match the needs of decision-making within planning and delivery of projects. (e.g. engineering, science, planning, legal, etc.).	Appropriate for consideration in Comprehensive Plan development	Encourage involvement in CMAP's 2040 Comprehensive Planning efforts.
E&NR - 4	Insert the following language into the Executive Summary and Section 1.1.1 "Intent and Scope" (perhaps at the end of section 1.1.1): • The RTP will fulfill SAFETEA-LU provisions for long-range transportation planning". • CMAP is developing a regional comprehensive plan that integrates land use and transportation systems.	The language on fulfilling SAFETEA-LU long-range transportation planning provisions can enhance language on the policy environment. The fact that CMAP is pursuing a regional comprehensive plan is in both the Executive Summary (p1) and the 3rd paragraph of text in Section 1.2.3 – Land Use & Transportat'n relationships. (p10)	Add shortened language on SAFETEA-LU provisions for long-range transportation planning to Section 1.0 – policy environment. (p5)
E&NR - 5-	Section 1.2.3 Land Use and Transportation Relationships 4th paragraph, 4th sentence, Propose change to, "The plan will use scenario modeling *and evaluation* to strengthen the functional links between land use and transportation planning,…"	Appropriate	Add these two words and the suggested sentence in section 1.2.3 on Land Use and Transportation Relationships. (p10-11)

Commenter	Summary of point	Appropriate to RTP Update/ other discussion or issues	Suggested Disposition
	Insert: "*Land use and environmental systems closely interact and require close coordination within analyses and decision-making processes*."		
E&NR - 6	Section 1.2.6 Natural Environment . Revise 1st sentence, propose change to, "Regional transportation decisions should support quality and sustainability of the natural environment."	Appropriate.	Add these three words to the objective in Section 1.2.6 (p13)
E&NR - 7	ENR committee points out importance of consistent interpretation of "mitigation" by professionals in the industry. Asks that the SAFETEA-LU definition of Mitigation in the RTP text	Generally the Federal regulations are not in re-written into the RTP document itself but accessible by reference. However, this is a fundament change with SAFETEA-LU and as such was agreed to at the E&NR Committee meeting.	Add the definition in section 1.2.6. and cite the SAFETEA-LU planning regulations as a footnote (with URL), (p13)
E&NR - 8	Highlighted several specific aspects of SAFETEA-LU planning regulations for inclusion in the text of section 1.2.6 on natural environment.	The SAFETEA-LU planning regulations provide a framework for this plan and are incorporated by reference.	Add footnote with URL for the SAFETEA-LU planning regulations. (footnote 23 on p13)
E&NR - 9	Add stationary and mobile source emissions to the RTP's purview (consider secondary impacts of transportation improvements on Air and water). Concerns regarding air quality could potentially be addressed in long-range transportation planning and integration with land use by including them within activities and decision-making for air quality conformity, the Clean Air Act and Illinois State Implementation Plan for air quality, and assessment and inclusion of indirect and cumulative effects as part of long-range planning and decision-processes.	Appropriate for consideration in Comprehensive Plan development.	Encourage involvement in CMAP Comprehensive Plan effort
E&NR - 10	Section 1.4 Goals for Future Transportation System Development A fundamental challenge observed with the RTP	Concept is consistent with the RTP.	Within Section 1.4's introductory language, add "…*if the environmental and natural*

Commenter	Summary of point	Appropriate to RTP Update/ other discussion or issues	Suggested Disposition
	goals and objectives is that in order to attain environmental and natural resource sustainability goals and objectives within our region, they must be integrated throughout all transportation goals and objectives within Section 1.4: (i.e. 1.4.1, 1.4.2, and 1.4.3) rather than focusing exclusively in Section 1.4.3.1 Transportation and natural environment objectives.		*sustainability goals and objectives are to be realized, they must be considered and integrated throughout all goals and objectives in this section.* (prior to enumerating the objectives in 1.4.1, 1.4.2, 1.4.3, etc. to set context for subject objectives listings.) (p18)
E&NR - 11	Insert the following language into Section 1.4 as the final paragraph: "Goals and objectives will fulfill SAFETEA-LU provisions for long-range transportation planning. CMAP is producing a regional comprehensive plan that integrates land use and transportation.	Same as comment #4 Already added shortened language on SAFETEA-LU provisions for long-range transportation planning to Section 1.0 – policy environment and have Comprehensive Plan	No further changes. Point out new and existing references on pages 5 and 10.
E&NR - 12	*Transportation and natural environment objectives (comments #12-19)* Add: Develop a transportation system that: effectively interacts to sustain natural and environmental systems, land use systems, cultural resource systems, and ecological systems.	Concept is consistent with the RTP. Added to section 1.4.3.1	Add 2 objectives under Develop a transportation system that (p23): • *Encourages the sustainability and connectivity of natural, environmental and ecological systems* • *fosters community by avoiding fragmentation of related land uses and cultural resources*.
E&NR - 13	Add: Develop a transportation system that: advances sustainability of water quantity and quality for the region .	Concept is consistent with the RTP.	Revise water quality objective (p22) as Develop a transportation system that • helps improve water quality, *quantity and sustainability.*
E&NR 14	Add: Develop a transportation system that:	Same as comment #2. This concept is implicit in the	No further action

Commenter	Summary of point	Appropriate to RTP Update/ other discussion or issues	Suggested Disposition
	uses a scientific approach and ecological principles in analysis and decision-making.	Environmental strategies listed in 3.1.2. but could be considered further in the Comprehensive Plan development.	
E&NR - 15	Add: Develop a transportation system that: incorporates green infrastructure development and environmental carrying capacity at the watershed level.	As a global concept fits better in the introductory language of under Environmental strategies (3.1.2)	Add "through an enhanced awareness of environmental carrying capacity of ecosystems in infrastructure development and use of ecological principles in decision making " to opening paragraph under Environmental strategies (3.1.2 on p31)
E&NR - 16	Add: Promote a transportation system that: utilizes the state of the practice for including environmental values and benefits and sustainability into analyses and decision-making.	This relates to project implementation not the transportation system.	*Add objective under* Encourage project implementation that: • **"***utilizes the "state of the practice" methods for including environmental values, and sustainability into decision-making."* (p23)
E&NR - 17	Add: Promote a transportation system that: recognizes the environmental restoration potential necessary to address the environmental mitigation discussion of the transportation plan that includes activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan.	This relates to project implementation not the transportation system.	*Add objective under* Encourage project implementation that: • "Recognizes that environmental restoration is necessary to restore and maintain the environmental functions affected by the plan's implementation". (p23)
E&NR - 18	Add: Encourage a transportation system that: utilizes measurable objectives to evaluate and monitor environmental functions and sustainability.	Appropriate for consideration in Comprehensive Plan development.	Encourage involvement in CMAP's 2040 Comprehensive Planning efforts.

Commenter	Summary of point	Appropriate to RTP Update/ other discussion or issues	Suggested Disposition
E&NR - 19	Add: Encourage a transportation system that: integrates relevant and sufficient buffers necessary for sustaining valuable environmental and natural resources.	This is a project implementation strategy not an overall transportation system strategy.	• Add language "… *and buffers in order to further sustainability of environmental and natural resources"* to exiting bullet in section 1.4.3.1 (p23)
E&NR - 20	In Section 3.1.2 on Environmental Strategies, insert: "National, state, and local environmental protection regulation are provided through environmental mitigation activities. Environmental mitigation activities mean strategies, policies, programs, actions, and activities that, over time, will serve to avoid, minimize, or compensate for (by replacing or providing substitute resources) the impacts to or disruption of elements of the human and natural environment associated with the implementation of a long-range statewide transportation plan or metropolitan transportation plan. The human and natural environment includes, for example, neighborhoods and communities, homes and businesses, cultural resources, parks and recreation areas, wetlands and water sources, forested and other natural areas, agricultural areas, endangered and threatened species, and the ambient air. The environmental mitigation strategies and activities are intended to be regional in scope, and may not necessarily address potential project-level impacts."	The opening concept is appropriate with minor wording change. The mitigation definition is being added in section 1.2.6. already and is incorporated throughout by virtue of its status and definition in the SAFETEA-LU planning regulations	Add "*National, state, and local environmental protection regulations are met, in part, through environmental mitigation activities" just before definition of mitigation is provided in 1.2.6.* (p13)
E&NR - 21	Insert to section 3.1.2 "Long-range planning and integration of land use and transportation will facilitate a process to coordinate efforts and goals across all levels of government including federal,	This concept flows well with langue in sec 1.2.3 on Land Use and Transportation Relationships	Insert "*Long-range planning that integrates land use and transportation will facilitate coordinated efforts and goals across all levels of government*

Commenter	Summary of point	Appropriate to RTP Update/ other discussion or issues	Suggested Disposition
	state, regional, county, and local levels.”		*including federal, state, regional, county, and local levels*” in 1.2.3. (p11)
IDOT D1-1	Under land use, add a statement that land use planning should encourage development or redevelopment that minimizes the impacts of traffic noise	Concept is consistent with the RTP.	Added to Section 3.1.1 on Community & Economic Development Strategies
IDOT D1-2	Intermodal freight yards seems to be growing into a regional issue (especially in Will County) with very significant impact on the surrounding communities and transportation network, Is there a place in this Update to highlight that concern?	As this is more of a land planning and community impact concern, this is appropriate for consideration in Comprehensive Plan effort.	Already discussed with commenter, Pointed out portions of Sections 1.3.2.2 and 3.1.3.2.4 that speak to the role of the RTP and the region in supporting and responding to intermodal freight.

Matrix of Public Comments on 2030 RTP Update – 5-9-2007

Com-menter	Summary of point	Appropriate to RTP Update/ other discussion or issues	Suggested Disposition
Oak Park - 1 (Village)	Supports the RTP's new language re CSS, & community and economic development strategies, land use considerations. They are pleased to see this RTP's broader language on health safety and environment..	Commenter was supportive.	None needed
Oak Park - 2 (Village)	Village urges comprehensive review of impacts of I-290 projects.	Project level comment. Major projects will get additional review in new CMAP processes (DRI) and in the 2040 Comprehensive Plan Development	Urge commenter's continued involvement in studies and project development activities related to the I-290 corridor.
Oak Park - 3 (Village)	RTP should make clear that health, safety and environmental factors should be given equal weight to traditional transp. related evaluation criteria	Safety is always the highest priority . Identifying the exact weighting of factors to be considered in future project selection projecting would be too proscriptive to allow needed flexibility and public discourse on projects. The concept of "equal weight" cannot be measured with such factors.	Letter to commenter identifying the relevance of such factors is supported by the RTP.
Orland Pk –1 (Village)	Designate Bell Rd as a major strategic arterial route connecting from Route 83 near 111th south to New Lenox which is projected to grow to close to 100,000 people.	The current IL 83/Bell Rd SRA Route follows Bell Road from IL 83 (a few hundred feet south of 111th) to 159th St. SRA guidelines require that SRA routes to end at another SRA facility or greater. However an extension from 159th St south to Wilmington - Peotone Rd is identified as a possible future SRA route, with its official inclusion subject to completion of appropriate studies.	Clarify the situation to commenter. Encourage them to pursue a SRA like study of the corridor for future consideration as an SRA route.
Orland Pk –2 (Village)	Prioritize an inner <circumferential> Metra commuter line on the Wisconsin Central Line---basically an extension of the north suburban line to the south and east. This	This projects is in the capital element as part of the Star Line (future phases). See figure 49 and associated description in the RTP Capital Element Update.	Direct them to the discussion in the recent capital element update document.

Com-menter	Summary of point	Appropriate to RTP Update/ other discussion or issues	Suggested Disposition
	serves inner ring suburbs with high residential density and employment. It also provides convenient choices for traveling in a grid by being able to switch to other commuter lines. This is in contrast to the proposed Star Line which has far fewer potential users.		
Orland Pk –3 (Village)	Provide weekend service on the Metra Southwest Line and increase daily service.	The Capital Element of the RTP, p97-100, includes Southwest Service Improvements and Extension. Also support for infrastructure extension and upgrades providing full service on weekdays and weekends are mentioned in "*Moving Beyond Congestion*", published by RTA. The CREATE program also includes increasing service on that line (as well as re-routing the line from Union Station to the LaSalle St. St'n)	Inform Commenter of RTP Capital Element reference as well as RTA's strategic initiative "Moving Beyond Congestion", and the CREATE Program. Direct Orland Park to Metra. Pass comment on to Metra.
Orland Pk -4 (Village)	Upgrade severely congested roads in the Orland Park area: • LaGrange Road to 6 lanes; • 159th Street to 4 lanes; • Wolf Road to 4 lanes; • 143rd Street to 4 lanes.	Programming issue	Direct Orland Park to IDOT and local programming processes. Pass comment on to these agencies.
Buffalo Grove	Resident requests that something be done to improve traffic flow and reduce accidents on Lake Cook Rd. / expresses annoyance with new commercial development and traffic increases on Lake Cook Rd and lack	Programming issue. The capital element and strategic systems support the kind of improvements he is concerned with.	Letter to commenter explaining RTP's support of safety and congestion relief. Direct commenter to the Cook County Highway Dept and the and his community's officials to input to the

Com-menter	Summary of point	Appropriate to RTP Update/ other discussion or issues	Suggested Disposition
	of driving options, as Rtes 22 and 68 have worse traffic than Lake-Cook Rd.		project programming process
Lake Co SWM Comm. - 1	… include an addition to the RTP policy regarding environmental mitigation that specifies: How local project level impacts will be addressed with mitigation.	SAFETEA-LU planning requirements (Sec. 450.104) defines Environmental mitigation activities for Statewide and MPO plans and clarifies *".. The environmental mitigation strategies and activities are intended to be regional in scope, and may not necessarily address potential project-level impacts."*	Clarify regional scope of the RTP and changes being made to the RTP to strengthen environmental mitigation references in Sections 1.2.6 and 1.4.3.1.
LCWSM - 2	… include an addition to the RTP policy regarding environmental mitigation that specifies: That environmental mitigation will comply with local stormwater management and wetland ordinances.	Already covered in RTP Update's draft language.	Point out that in Section 1.4.3.1 on natural environment objectives, the transportation system objectives on water quality and water supply and the transportation project implementation objectives on CSS and consistency with federal, state, regional and local environmental protection and preservation plans address this issue.
LCSWM - 3	… include an addition to the RTP policy regarding environmental mitigation that specifies: That environmental mitigation plans will be developed with local as well as Federal and State agency consultation, and will include consultations that compare transportation plans to watershed plans.	Already covered in RTP update's draft language.	Point out that in Section 1.4.3.1 on natural environment objectives – transportation project implementation bullets on CSS and consistency with federal, state, regional and local environmental protection and preservation plans address this issue.

Draft 5-16-07

2030 REGIONAL TRANSPORTATION PLAN

FOR NORTHEASTERN ILLINOIS

2007 UPDATE

DRAFT ***May 16, 2007***

note: italics font indicates language updated since the October 2003 approved 2030 RTP
(for those viewing this on line or via color printer, green italics font indicates language added prior to release for public review, and blue italics is language added to the public release version)

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Subject to Revision

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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
CMAP	*Chicago Metropolitan Agency for Planning*
CMP	*Congestion Management Process*
CMS	Congestion Management System
CNT	Center for Neighborhood Technology
CSS	*Context Sensitive Solutions*
CTA	Chicago Transit Authority
EIS	Environmental Impact Statement
EJ&E	Elgin Joliet & Eastern
FTA	Federal Transit Administration
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 for Northeastern Illinois 2007 Update (RTP)*. 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.

To integrate planning for transportation and land use, the Chicago Metropolitan Agency for Planning (CMAP) has been created by merging the staffs of the Chicago Area Transportation Study (CATS) and the Northeastern Illinois Planning Commission (NIPC). The creation of this agency was proposed through state legislation (House Bill 3121), unanimously approved by the Illinois General Assembly as the Regional Planning Act, and signed into law in August 2005. CMAP serves the counties of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will.

In its enabling legislation, CMAP is directed to produce a regional comprehensive plan that integrates land use and transportation. The first version of such an integrated plan is programmed for completion in 2010. This regional comprehensive plan will function as the regional transportation plan for the Chicago region, complying with all federal guidelines governing such documents, and will have a horizon year of 2040.

Planning process

The 2030 RTP was developed through a public planning process called *Shared Path 2030* that began in June 2001 and continued through the RTP's adoption in October 2003, *with successive updates in 2006 and 2007*. *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, *a predecessor to the Chicago Metropolitan Agency for Planning [CMAP]),* through its *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.

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.

During the public input phase for the update of the capital program, seven workshops were conducted throughout the region that utilized a specialized public engagement tool referred to as "Transopoly℠". The tool allowed workshop participants to simulate transportation decision-making processes concerning the use of limited funds for capital projects. The public outreach process also included a survey that was available to a larger regional audience. The public involvement process demonstrated strong support for the RTP, and in particular for three specific themes: more and better integrated public transit; better land use and transportation integration; and improved transportation congestion management. Reports of and material used in the public involvement process and results are posted on the Shared Path 2030 website http://www.sp2030.com/2030Update.htm *or via the link "reports and materials from the public involvement for the 2030 RTP Update" on the SP2030.com home page).*

CMAP is committed to maintaining an active and effective public involvement process, both for the development of long-range planning documents and for other activities. CMAP's Public Participation Plan is under development, and will be adopted in June, 2007. The agency has formed a Citizen's Advisory Committee, which is tasked with providing guidance on the Public Participation Plan and CMAP's overall general outreach and engagement strategies, as well as conveying regional residents' perspectives to the CMAP Board. In addition to the Citizen's Advisory Committee, the Council of Mayors structure, a new committee comprised of county officials, and general outreach activities will be used to obtain input from the public and agency partners regarding all aspects of planning and programming. While CATS and NIPC have employed the world wide web and state of the art engagement tools and visioning techniques in the recent 2030 RTP, 2040 Framework Plan and Common Ground processes, CMAP is committed to building on these tools and techniques for the coming

plan development efforts and specifics techniques and methods will be outlined in the agency's Public Participation Plan, now under development.

CMAP has improved upon past CATS and NIPC communication processes by establishing working committees in key areas of regional concern, which mirror Congressional intentions for broader input to the transportation planning process. CMAP's working committees will give regular feedback on CMAP plans, programs and initiatives, as well as helping in identifying additional relevant stakeholders and interested parties for all critical endeavors. The working committees are:

- *Land Use*
- *Economic & Community Development*
- *Environment & Natural Resources*
- *Housing*
- *Human Services*
- *Transportation*

These groups will be an integral part of the 4 year effort to produce the region's first Integrated Land Use and Transportation Plan, scheduled for completion in 2010.

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, *ensuring compatibility with local planning efforts,* 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 *CMAP* 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 $*64.9* 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 $ *12.9* 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 Board of Chicago Metropolitan Agency for Planning (CMAP) and* the Policy Committee of the Chicago Area Transportation Study (CATS). *The Policy Committee of* 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] *An update to the capital element and strategic systems portions of the 2030 RTP was adopted in October 2006 in order to comply with air quality conformity regulations. The policy, goals, objectives and strategies portions of the document are being updated to comply with the requirements and guidance of SAFETEA-LU. The combined document of original 2030 RTP with the revisions made through the 2006 and 2007 updates will fulfill SAFETEA-LU provisions for long-range transportation planning.*

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 *four* 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 *economic,* 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]

- *The CMAP Board has agreed to champion the long-recognized need for additional transportation resources by sponsoring development of a long-range transportation financial plan. The RTP acknowledges that new financial resources may require new legal and institutional arrangements for implementation.*

For the period 2004-2030, these assumptions result in an estimated $64.9 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 *and the US EPA has determined that the region is in non-attainment for the national ambient air quality standards for ozone.* This pollutant is formed primarily by the reaction of volatile organic compounds (VOC) and oxides of nitrogen (NOx) in sunlight. *Because of this relationship,* the Illinois Environmental Protection Agency (IEPA) has established "mobile-source budgets" for these *two* 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 *based on a one-hour standard*. *These one-hour budgets are being used as an interim standard until IEPA produces (and USEPA finds adequate) 8-hour ozone budgets. The 8-hour pollutant budgets are expected in the fall of 2007, while the RTP's capital element update, adopted in the fall of 2006, used the above interim 1-hour budgets.* The principal contribution the RTP makes to *meeting ozone standards is by managing VMT growth and providing* greater choice among travel modes and facilities, as well as *reducing vehicular delays during travel*.

Additionally, USEPA has determined that the region is in non-attainment of the annual standard for fine particulate matter, sized at 2.5 micrometers or less ($PM_{2.5}$). $PM_{2.5}$ is a health hazard. $PM_{2.5}$ is generated directly from combustion, and from photochemical reactions involving VOC, NOx, SOx (Oxides of Sulfur) and other combustion by-products. The RTP and TIP contribute to $PM_{2.5}$ attainment by reducing vehicle miles of travel (VMT), particularly truck VMT, and by reducing delay, especially for diesel trucks, buses and locomotives. The budgets for $PM_{2.5}$, are due from IEPA in April, 2008. The RTP and the region's TIP will have to meet these budget in the subsequent air quality conformity analyses.

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 *which help to ensure consistency between efforts throughout the region in a variety of planning areas, including land use, economic development, natural resources, housing, and human services.* 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

Please note that during the policy update to the RTP, the topic of "Transportation management and operations" was renamed "Congestion management." In addition, two topics were added to the 2007 update due to guidance contained in SAFETEA-LU.

- *Transportation Security*
- *Economic development*

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. *These problem statements have been enhanced for the 2007 update to highlight CMAP's new responsibilities and activities.*

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 and transportation and land use need to be mutually supportive.

The 2040 Regional Framework Plan[19] was developed by NIPC (CMAP's predecessor) in concert with the transportation planning process. The Framework Plan envisions a region with development focused on centers, ranging from the global center in the Chicago Central Area, to metropolitan, community, and town centers, and hamlets in rural areas, all developed with housing and jobs to minimize travel distances. The 2040 Regional Framework Plan envisions metropolitan centers linked to each other with "transportation corridors". In addition, a large part of the region would be maintained as "green areas."

The Regional Framework Plan was developed to guide the region's future land use and development by coordinating local land-use planning and the regional, state, and federal decisions that shape land development. The plan defines seventeen implementation strategies that include approaches to compact, mixed-use development and redevelopment; jobs and housing balance; transit-oriented development; preservation of biodiversity, water resources, and farmland; and economic vitality.

CMAP will also create a comprehensive plan, as required by the Regional Planning Act, to articulate a vision for the region's future and the strategies necessary to realize that vision. This plan will fully integrate land use and transportation, as well as considering other important regional issues. The plan will use scenario modeling and evaluation to strengthen the functional links between land use and transportation planning, with a comprehensive range of regional issues such as health, economic development, education, environment, and water supply. Land

use and environmental systems closely interact and require close coordination within analyses and decision-making processes. Because these issues cut across political boundaries, CMAP will facilitate planning processes and partnerships that cut across jurisdictions. Long-range planning that integrates land use and transportation will facilitate coordinated efforts and goals across all levels of government including federal, state, regional, county, and local levels. Initial stages in the development of a regional comprehensive plan are underway, with adoption anticipated in fall of 2010.

CMAP continues its function of preparing 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 the 2040 Regional Framework Plan. The RTP and Regional Framework Plan are intended to be mutually supportive.

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."

CMAP intends to develop a process to identify projects that have regional importance. By reviewing municipal and county plans, CMAP can work with communities to better understand the impacts of their land-use decisions, especially in terms of developments and other projects of regional significance. Often local choices have a significant impact on neighboring communities or facilities, and CMAP will provide the regional context in which local decisions should be made.

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.[20]

CMAP's research will also focus on best practices in northeastern Illinois and around the nation and world. The issues that each community faces are not unique. Although there are no one-size-fits-all solutions, the region can learn from its neighbors and others who face similar challenges. CMAP will develop a system for monitoring progress toward implementation of the regional framework as we strive to build and maintain vibrant communities. Developing a regional reporting framework with accountability measures and other indicators will help gauge the success of implementation strategies.

CMAP has developed tools to help communities implement the Regional Framework Plan and has begun to provide technical assistance to help them make more informed land-use decisions through coordinated planning. CMAP will focus on communication, outreach, and engagement efforts that are key to ensuring coordination between regional and local planning.

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.[21] 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[22] 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. *A Human Services Transportation Plan (HSTP) for the 7 county region is being developed by the Regional Transportation Authority (RTA) in cooperation with the MPO. (See RTA's web site at http://hstp.rtachicago.com for current updates to HSTP including public meeting dates and results.) Known as "Connecting Communities through Coordination", this planning effort will identify and recommend regional and local strategies that encourage the most effective use of available transportation services to enhance mobility for the region's older adults, persons with disabilities and individuals with lower incomes. Projects for FTA sections: 5310 (Elderly Individuals and Individuals with Disabilities), 5316 (Job Access/Reverse Commute), and 5317 (transportation component of the New Freedom Initiative) will be derived from the HSTP. Starting in FY07 they will be listed in the region's Transportation Improvement Program (TIP). Past Job Access/Reverse Commute projects have been listed in the TIP and annual listing of awarded and obligated projects.*

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 support ~~promote~~ quality and sustainability 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. *Mitigation of environmental impacts that arise from transportation projects must be well thought out and be an outcome of an interactive communication process that gives all stakeholders a voice in the decision-making process. National, state, and local environmental protection regulations are met, in part, through environmental mitigation activities. The SAFETEA-LU Planning regulations define environmental mitigation activities to "mean strategies, policies, programs, actions, and activities that, over time, will serve to avoid, minimize, or compensate for (by replacing or providing substitute resources) the impacts to or disruption of elements of the human and natural environment associated with the implementation of a long-range statewide transportation plan or metropolitan transportation plan. The human and natural environment includes, for example, neighborhoods and communities, homes and businesses, cultural resources, parks and recreation areas, wetlands and water sources, forested and other natural areas, agricultural areas, endangered and threatened species, and the ambient air. The environmental mitigation strategies and activities are intended to be regional in scope, and may not necessarily address potential project-level impacts."* [23]

A robust context-sensitive solutions process can give early, though not necessarily complete, consideration to biodiversity and other environmental impacts of proposed transportation projects. As planning, design and construction of major transportation projects is subject to rigorous environmental regulation public and private organizations can also *participate in of an interactive communication process to assist with promoting not only the* preservation of high-quality natural areas in the region that remain unprotected by legislation or regulation*, but in enhancing and protecting natural resources that include ground and surface water and terrestrial resources*.[24]

Shared Path 2030 recognizes the need to protect environmental resources while improving safety, mobility and accessibility for the region. The generalized alignments of 2030 RTP capital recommendations have been overlaid on a map of the region's sensitive natural resources. This overlay identified potential concerns about the impact of transportation system proposals on sensitive areas. These concerns, which are included with each project in the capital element of this plan, serve as a preliminary guide in identifying the scope and scale of further study, and will be thoroughly addressed during project development and design phases.

Shared Path 2030, in coordination with *the 2040 Regional Framework Plan* developed a set of regional strategies consistent with adopted regional policies on environmental preservation and enhancement. *(See Section 1.4.3.1)*

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. *The following documents were used as resources during the development of the 2030 RTP:*

- *Habitat Conservation Plan for Hines Emerald Dragonfly (and other species)*
- *Groundwater Protection Areas*
- *Regional Openways Plan*
- *State Archeological and Historical Files*
- *State Wildlife Conservation Plan*
- *National Wetland Inventory*
- *County ADID maps- Kane, Lake, McHenry*
- *County Resource Management plans*
- *Nature Conservancy*
- *Chicago Wilderness Green Infrastructure Plans*
- *Local Green Infrastructure Plans*
- *Watershed Plans*
- *U.S. Fish and Wildlife Priority Species for Conservation*
- *Chicago Wilderness Biodiversity Recovery Plan*
- *Chicago Wilderness Wetland Conservation Strategy*

1.2.7 Congestion Management

Technological advances offer great potential to improve traveler information and facility operation. Regional transportation policy should consider the opportunities presented by 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 *the deployment of these innovations in* the region. *Indeed, SAFETEA-LU requires that northeastern Illinois develop a "Congestion Management Process" providing effective management and operation of the system "through the use of travel demand reduction and operational management strategies."*[25] *To comply with SAFETEA-LU, the congestion management process will address federally funded highway projects resulting in significant increases in carrying capacity for single-occupant vehicles*.[26]

The magnitude of organizational arrangements and institutions that are required to manage our current system demonstrates the need to consider the management of our transportation system at the regional level. *Given the system's complexity, such management requires the use of performance measures to monitor the deployment of management and operations strategies and to ensure their effectiveness.*

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.

Promotion of transportation safety has been a paramount consideration of federal and state transportation regulation and enforcement for many years. *Transportation crashes are a leading cause of early death. More broadly, transportation crashes result in large personal losses because of injuries and property damage. Tertiary losses to the region include economic effects and significant disruptions to the transportation system. Crashes and their severity are a function of human factors, (such as behavior, reaction time, and vision), environmental factors (roadway geometry, weather), vehicle characteristics (handling, crash-worthiness), and exposure rates. Many of these factors are out of the control of the RTP. However, transportation providers can respond with information systems to identify risks, exposure, and crash rates to prioritize and implement countermeasures. These countermeasures, as identified for roadways in the Illinois Comprehensive Highway Safety Plan, may include engineering improvements to operate roadways more safely for motorized and non-motorized users, traffic regulations and their enforcement, and education/outreach to encourage safe behavior by users of the transportation system. In addition, transportation and land use can be planned together to reduce risk exposure by encouraging modes of travel which are less likely to cause crashes (e.g., transit) and safely facilitating non-motorized travel. Community planning can encourage less motor-vehicle miles of travel (VMT), safe travel choices and behavior, and can reduce exposure to risk.*

Similarly, 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. *The region is planning, facilitating and funding more opportunities for bicycle and pedestrian travel. As an alternative to automobile and transit travel, this increased emphasis on non-motorized travel provides both air quality benefits and promotes physical activity within people's daily routine as a health benefit.*

1.2.9 Transportation Security

Regional transportation policy needs to respond to security threats. Threat assessments of transportation facilities should evaluate their vulnerabilities and risks, to prioritize physical security improvements. As noted by the Mineta Transportation Institute in a report for the

FHWA, "Physical security by itself does not prevent terrorism, but good security can displace the risk, pushing terrorists toward still vulnerable but less lucrative targets where their actions are likely to cause fewer casualties."[27] *Remote monitoring technology should be deployed to deter, detect, and respond to specific security threats if possible. Should an incident occur, related to the transportation system or not, the transportation system response should be coordinated among agencies to minimize casualties and disruption. Evacuation procedures should assure the evacuation of vulnerable users, which may include children, the disabled, those without access to cars, and the elderly, depending on the incident. Communications plans should be in place to assure that coordinated actions are taken by the public and response personnel, to prevent panic, and to keep in place those not at risk. In addition, advance system planning should assure a variety of transportation choices so that the system is robust to any incident. Design and construction of transportation facilities may accommodate security needs by, for example, blast-resistant construction and increased vehicle stand-off distances for vulnerable structures.* [28]

1.2.10 Economic Development

Regional transportation planning should support economic development goals and efforts.

The northeastern Illinois regional economy is changing rapidly and dramatically. Industries that were once the backbone of many communities are on the wane and the opportunities for new paths of growth are not always clear or easy to begin. In the face of such change the role of economic development in transportation planning is crucial and needs to be structured, systematic and fully integrated into the transportation planning process.

Transportation planning should align with all economic development regional goals and focus on strengthening the economy in a global climate and developing partnerships across governmental agencies, the private sector and the community at large. The process should also facilitate job creation and support initiatives designed to encourage private enterprise.

In determining the importance of economic development in transportation, it is necessary to outline the assumptions of the process, its impact on the regional economy and identify a role for transportation planning agencies such as CMAP. Transportation planning must focus on factors internal to the workings of the regional economy and ensure that all policies strive for a strong return on infrastructure developments. The role of transportation planning to the economy is to consider changes in the economy and develop strategies that encourage equitable development in transportation, new infrastructure designed to assist and retain a vibrant economy, and a strong, accountable, and transparent process.

The ideas and principles outlined in the plan arm the region with information, data and processes that can be used to better assess and encourage regional growth and development. For example, flow of freight in northeastern Illinois must be assessed, measured and evaluated in order to identify its value and impact on the region. In the area of goods movements, CMAP can track industry trends, develop and promote best practices, benchmark costs and conditions, provide training and technical assistance, and facilitate regional discussions to support the efforts of our economic-development partners.

The process of collaboration and partnership has been a long term challenge for the region. To demonstrate the new approach to involvement, over 120 business and community leaders attended a CMAP economic and community development summit on August 17, 2006, to provide input in helping to define CMAP's role in this focus area. The primary feedback from participants was that CMAP should focus on its data analysis tools and resources to link transportation, land use, and economic development for improved planning and decision making. Finally, the committee structure at CMAP will guide and lead the agency's innovative approach to ensure that economic development is fully integrated into the transportation planning process.

1.3 *THE 2040 REGIONAL FRAMEWORK PLAN*

In September 2006, the 2040 Regional Framework Plan was adopted by the CMAP Board to guide the region's integrated approach to regional planning. The Regional Framework Plan was prepared by the Northeastern Illinois Planning Commission in concert with the Chicago Area Transportation Study and CATS' development of the first 2030 Regional Transportation Plan. The Regional Framework Plan basic recommendations provide the vision for transportation improvements and activities in the RTP. The RTP supports the approach and recommendations of the 2040 Regional Framework Plan. The 2040 Plan identifies a regional planning framework that includes the elements of Centers, Corridors and Green Areas.

Centers are defined as compact, mixed-use, economically vibrant places interconnected by multiple modes of transportation, and nearly three hundred centers are identified throughout the region. The 2040 Plan recommends that regional population and employment growth be directed to centers, with more compact development and a greater mix of land uses. Centers are recommended to provide a variety of housing types and affordability, encourage diversity among their residents, and feature high standards of livability. The 2040 Plan recognizes the critical role of transportation in facilitating the development of centers through concepts such as Transit Oriented Development (TOD).

Corridors are transportation links between centers. The 2040 Plan recommends multi-modal options in all transportation corridors, supporting the principle of "shared use" facilities that specifically encourages and accommodates safe and efficient use by pedestrians, bicycles, buses, autos, and trucks. In particular, the 2040 Plan supports provision of additional transit options for intersuburban or reverse commutes, consideration of commercial goods movement throughout the region, planning for appropriate land uses near to transportation corridors, and concepts such as Context Sensitive Solutions (CSS) to better integrate transportation improvements in corridors with the communities that they serve.

Green areas include agriculture, water resources, open space, and greenways. The 2040 Plan calls for the protection of existing green areas and the development of new green areas to conserve natural resources and farmland, maintain biodiversity, and provide additional recreational opportunities. The 2040 Plan recommends that transportation improvements preserve or enhance existing or planned green areas.

1.4 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 *CMAP's* work is comprehensive,[29] the goals have considerable overlap and reflect a broad spectrum of preferences.[30] In addition, because we are establishing policy direction for government agencies, the goals speak to institutional influences on society.[31] 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.[32] 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.[33] Resolution of these objectives continues during all phases of project development and implementation.

These goals have been further strengthened by the development of the 2040 Regional Framework Plan. The goals and objectives identified within the 2040 Plan are consistent with the RTP goals. Furthermore, if the environmental and natural sustainability goals and objectives are to be realized, they must be considered and integrated throughout all goals and objectives in this section.

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, and community plan development).

1.4.1 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.

1.4.1.1 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.
- *manages access to nearby land uses.*
- mitigates conflicts between rail and highway systems.

1.4.1.2 *Congestion management* objectives

Develop a transportation system that:
- improves transportation system information available to travelers *and system operators.*
- facilitates management and operations communications abilities *and real-time decision making.*
- *reduces non-recurring delay by reducing the number and duration of highway incidents and improves transit system on-time performance.*
- *reduces recurring delay through access and speed management, value pricing, improved design, and incentives encouraging alternate modes of travel*

Promote transportation proposals that:
- *reduce highway congestion.*
- *improve system reliability.*
- provide improved transportation management capabilities.
- maximize performance benefits through intensive management.
- increase person throughput in congested corridors by increasing vehicle occupancy*, providing transit options, and encouraging transit use.*

- *increase the share of trips made by walking, bicycling, and transit.*
- improve coordination *and connectivity* between and among different modes.
- *support regional or local efforts to balance the location of jobs, services, and housing to reduce travel distances.*

Encourage project implementation that:

- provides for intensive facility management and operations capabilities.
- provides for coordinated management with other existing and planned transportation facilities.
- *facilitates safe travel and reduces the number and severity of crashes.*
- *preserves the integrity of the transportation system by considering access of nearby land uses to the facility.*
- *implements the regional transportation and land use plans and programs efficiently.*
- improves ability to manage freight.
- *improves compliance with speed, right-of-way and safety regulations.*

1.4.2 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.

1.4.2.1 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.
- *maximizes the efficient use of existing infrastructure.*

Promote transportation proposals that:

- reduce highway congestion.
- increase the availability of public transit.
- encourage walking and bicycling for transportation.
- *support regional or local efforts to balance the location of jobs, services, and housing to reduce travel distances.*

Encourage project implementation that:

- enhances the facility's multimodal potential.
- maximizes the operational effectiveness of capital improvements.
- *supports the location of appropriate land uses near to the facility.*

1.4.2.2 Transportation and land use interaction objectives

Develop a transportation system that:
- promotes a local balance of jobs and housing.
- facilitates efficient *and sustainable* management of land resources.
- supports the goals and objectives of regional land use policies.
- *supports the implementation of the recommendations for centers, corridors, and green areas in the 2040 Regional Framework Plan.*

Promote transportation proposals that:
- *promote consistency with regional and local planned growth patterns.*
- are coordinated with regional and local development plans.
- *provide access to centers identified in the 2040 Regional Framework Plan.*
- *encourage compact and efficient mixed-use developments.*
- *improve access from residential areas to local employment centers or public transit facilities.*

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 land use mixes that foster efficient and healthy travel behavior.*
- supports *T*ransit *O*riented *Development (TOD) principles.*
- *respects nearby land uses through Context Sensitive Solutions (CSS) principles.*

1.4.2.3 Transportation mobility and accessibility objectives

Develop a transportation system that:
- offers travelers a choice of transportation modes.
- fosters affordable travel.
- fosters short travel times.
- *provides transportation options for disadvantaged populations.*

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.
- *encourages coordination of transportation services for disadvantaged populations.*

1.4.2.4 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.
- maintain and promote the value of existing public and private investments in freight transportation.
- *support planned economic development patterns that enhance efficient commercial goods traffic.*

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.

1.4.3 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 vision of CMAP is to provide the framework that will help the region connect its land use to its transportation systems, preserve its environment, and sustain its economic prosperity. Taking a new integrated and collaborative approach to regional planning and decision-making will create a more comprehensive framework, with more focused implementation on the local level.

During 2007 and future years, CMAP will improve its capacity to understand and communicate the significant impacts that land use and transportation decisions have on each other and on housing, economic and community development, and natural resources. This process will result in the adoption of an integrated comprehensive plan in 2010.

1.4.3.1 Transportation and natural environment objectives

Develop a transportation system that:

- helps improve air quality.
- helps improve water quality, *quantity and sustainability.*
- promotes and protects biodiversity.
- reduces air pollution from mobile sources.
- *promotes planning for a sustainable water supply.*
- *Encourages the sustainability and connectivity of natural, environmental and ecological systems*
- *fosters community by avoiding fragmentation of related land uses and cultural resources.*

Promote transportation proposals that:

- encourage reduced energy consumption.
- improve air quality in areas with high point-source emissions.[34]
- include elements that mitigate environmental problems *including offsetting carbon emissions.*
- provide opportunities to improve *air, water and terrestrial* environmental quality.
- *enhance green areas identified in the 2040 Regional Framework Plan.*

Encourage project implementation that:

- employs *Context Sensitive Solutions (CSS)* with regard to *cultural, historical and* natural environmental features.
- *avoids wetland impacts and* promotes wetland protection
- protects *and enhances* natural groundwater recharge *and water quality*.
- *promotes effective stormwater management.*
- *utilizes the "state of the practice" methods for including environmental values and sustainability into decision-making.*
- *promotes farmland preservation.*
- enhances greenways, trails and open space.
- includes natural landscaping *and buffers to further sustainability of environmental and natural resources.*
- *Recognizes that environmental restoration is necessary to restore and maintain the environmental functions affected by the plan's implementation.*
- helps protect threatened and endangered species *and promotes biodiversity*.
- is consistent with *federal, state, regional and locally adopted* environmental protection and preservation plans.

1.4.3.2 Transportation and economic development objectives

Develop a transportation system that:

- enhances the region's business environment.
- promotes the region's position as a national *and global* transportation hub.
- orients the benefits of commercial and industrial strength toward the long-term benefit of the region.
- *supports a balance of jobs, services, and housing within communities.*
- *supports economic reinvestment in communities with disadvantaged populations.*

Promote transportation proposals that:

- provide multimodal ground access to the region's major airports, rail terminals *and ports at navigable waterways.*
- improve multimodal service to the Chicago Central Business District (CBD) and other employment concentrations.
- provide multimodal access to industrial and commercial areas.
- *provide multimodal access to centers identified in the 2040 Regional Framework Plan.*
- *provide multimodal connections between affordable housing locations and appropriate jobs and services.*
- support the strategic needs of commercial goods shippers and carriers.
- *support planned economic development patterns and activities.*
- *facilitate the staging of development and integrate with existing infrastructure or road networks*

Encourage project implementation that:

- accommodates forecast demand.
- provides for improved level of transportation service for workers and businesses.
- *considers access to job centers and links between residential and employment areas.*
- *brings together the public and private sectors to diversify and strengthen regional economies.*

1.4.3.3 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.[35]

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.

- *are consistent with the policies put forth in the region's Human Services Transportation Plan (HSTP) which is currently underway*[36]
- *support efforts to develop affordable housing opportunities.*
- *support links from disadvantaged communities to jobs and services.*
- *encourages coordination of transportation services for disadvantaged populations.*

Encourage project implementation that:
- balances project burdens among all who benefit.
- *minimizes or mitigates project burdens on disadvantaged populations.*
- *employs context-sensitive solutions with regard to promoting local community quality.*
- provides early, continuous and extended outreach efforts *that reach a variety of constituents with attention given to engaging nontraditional* stakeholders *such as disadvantaged populations.*

1.4.3.4 Transportation and community development objectives

Develop a transportation system that:
- promotes balanced land use within and among local communities.
- Promotes *sustainable* community quality of life.

Promote transportation projects that:
- *provide access to centers identified in the 2040 Regional Framework Plan.*
- *facilitate locally planned land use patterns.*

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.
- *respects community preferences through Context Sensitive Solutions (CSS) principles.*
- *engages all members of local communities in outreach efforts related to transportation improvements.*

1.4.3.5 Transportation and public health and safety objectives

Develop a transportation system that:
- provides *safe travel facilities and services.*
- *promotes safer travel choices.*
- *promotes curbs to unsafe behavior and vehicle operations.*
- *provides mechanisms to reduce risk exposure.*
- *promotes transit agencies' System Safety Program Plans.*
- promotes established public health objectives.
- promotes healthy and active traveling habits.

Promote transportation projects that:
- facilitate safe travel.
- *implement the Illinois Comprehensive Highway Safety Plan.*

Encourage project implementation that:
- maximizes the safety and security of all travelers.
- minimizes project-related air, water and noise pollution.
- maximizes the safety and security of adjacent populations.
- facilitates walking and bicycling for transportation.

1.4.3.6 *Transportation security objectives*

***Develop a transportation system that*:**
- *addresses vulnerabilities, and is secured appropriately.*
- *is monitored to deter, detect, and respond to specific security threats*
- *coordinates security and emergency preparedness programs across transportation modes and jurisdictions*
- *can be employed to respond to incidents robustly, including evacuation of vulnerable populations, minimizing casualties and disruption.*

Promote transportation projects that:
- *provide monitoring capabilities for the security of the transportation system.*
- *provide communications infrastructure for incident detection and coordinated response.*

Encourage project implementation that:
- *improves the security of vulnerable structures*.
- *provides incident detection and communications infrastructure.*

CHAPTER 2.0: REGIONAL ASSESSMENT

(Section omitted, no changes from October 2003 version)

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.[37]

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 Economic* Development Strategies

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

Promoting community and economic development strategies supports the RTP's goal to sustain the region's vision and values, specifically with regard to objectives promoting economic development, social equity, community development and public health and safety.

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[38] 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.
- *Encourage development or redevelopment that minimizes the impacts of traffic noise.*
- Plan and design major land uses[39] to allow for convenient and safe access by all travel modes.[40]
- 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.[41]

- Resolve potential transportation interaction with official historic, cultural and/or agricultural preservation plans.
- *Are consistent with the recommendations and strategies of the 2040 Regional Framework Plan.*

Economic development efforts also affect the regional transportation system. The RTP encourages economic development efforts that:

- *Finance transportation projects that update and maintain infrastructure.*
- *Take advantage of the existing infrastructure.*
- *Stimulate private sector activity in the planning process.*
- *Strengthen partnerships across governmental agencies, community stakeholders and the private sector.*
- *Recognize the regional nature of economic development and advance strategies that address challenges and opportunities throughout the regional economy.*
- *Carefully and objectively analyze the structure of the region in order to identify comparative advantages, critical industries, workforce needs and emerging prospects for development and growth.*
- *Make sensible investment in the public transportation infrastructure as a way to spur regional economic development and growth.*
- *Strive for a strong and sustainable return on investment from any transportation economic development initiative.*

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.[42]
- Transportation improvements *and community development activities will be coordinated*[43] to offer efficient[44] 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, *sustainable* land development.[45]
- Plans and designs for transportation improvements should be sensitive to community context.[46]
- 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. *An interdisciplinary approach to planning and design incorporates the viewpoints of various agencies, stakeholders, and others who have roles or areas of concern in the transportation project allowing for better coordination and resolution of competing interests.* New and better ways of *planning and* designing transportation facilities are evolving based on growing interest in better integrating these facilities into the communities they serve *over the long term*.

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 the full range of stakeholders to preserve and enhance the human and natural environment in the project area.

Important principles of context-sensitive solutions include[47]:

- *Strike a balance between cost, safety, mobility, community needs, and the environment.*
- *Involve stakeholders in the decision-making process early and continuously, throughout the development of the project.*
- *Address all appropriate modes of transportation in the plan and design of the project, including motor vehicle, mass transit, pedestrians and bicyclists.*
- *Use all appropriate disciplines to help plan for and design the project.*
- *Apply the flexibility inherent in the design standards to fit the project into its surroundings.*
- *Incorporate aesthetics as part of basic "good design."*

3.1.2 Environmental Strategies

The RTP recognizes that maintaining and improving the transportation system provides opportunities to improve environmental quality *and achieve sustainability through an enhanced awareness of environmental carrying capacity of ecosystems in infrastructure development and through the use of ecological principles in decision making. The RTP recommends that project implementers prioritize environmental stewardship in their efforts to improve safety, mobility and accessibility for the region. To assist in identifying environmental issues, a map of capital element projects showing environmentally sensitive areas has been prepared and is posted at http://www.sp2030.com/sensitive_areas.pdf, and was used to develop specific lists of concerns for these projects. The RTP recommends thorough investigations of these concerns during project development and design phases to avoid, minimize, and mitigate effects.*

Much of the environmental impact of transportation is governed by national, state and local environmental protection regulations. *For example*, 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 within a "pollutant budget" established by the Illinois Environmental Protection Agency (IEPA).

In addition, *CMAP* has established regional policies that recast many environmental protection requirements into opportunities to enhance environmental quality. The RTP embraces *the recommendations for the treatment of green areas contained in the 2040 Regional Framework Plan, in addition to specific 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.[48]
- Reduce deterioration of habitat quality.
- Help protect threatened and endangered species.
- Promote wetland protection *by avoidance, or the use of large wetland mitigation banks located within the affected watersheds and connected hydrologically with the surrounding landscape*.
- Ensure consistency with *federal, state, regional and locally adopted* environmental protection and preservation plans.
- Plan, design and construct transportation improvements in accordance with *CMAP'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.
- *Preserve farmland.*
- *Protect and enhance biodiversity*
- *Ensure that transportation facilities use Context Sensitive Solutions (CSS) principles in relation to the protection and connectivity of natural resources.*

3.1.3 Congestion Management

The Congestion Management Process (formerly Congestion Management System) is set forth in the document "Congestion Management System for Northeastern Illinois," approved by the Policy Committee in 1997. Updates were promulgated in subsequent years, including 2002 and, most recently, in 2006.

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 *Process (CMP)* for Northeastern Illinois.[49] Specifically, the following CMS elements support the RTP's objective of improving transportation system efficiency. *Significant efforts have been put into development of a draft Management and Operations plan that will inform the federally required Congestion Management Process.*

Congestion management helps improve the transportation system through a range of strategies including not only the obvious traffic improvements, such as signal timing, but also strategies that have many other impacts as well. For example, making the transportation system safe, secure, and functional for all users also helps to make the system operate better. Likewise, improved communications help system managers respond to conditions more quickly, reducing travel delay, and provides better information to users.

To develop and implement the congestion management process and its component management and operations strategies, CMAP will partner with IDOT, counties, transit agencies, municipalities (including the City of Chicago), civic and advocacy groups, academic institutions, the planning and engineering communities, U.S. DOT, and other groups.

3.1.3.1 Congestion Management: Performance Measures

The RTP recommends that the Congestion Management Process investigate, and implement as appropriate, the following potential performance measures. The Congestion Management Process will adopt or modify specific targets for each performance measure with additional transportation provider, stakeholder, and public involvement.

(a) Customer satisfaction of traveling public: measure improvement on customer surveys.[50]

(b) Extent of congestion: measure reduced growth rate of spatial and temporal congestion.

(c) Highway travel time reliability: improve highway travel time reliability.

(d) Transit service reliability: improve transit on-time performance.

(e) Non-recurring travel delay: reduce non-recurring travel delay.

(f) Incident duration: reduce mean time of incident duration on transit services and arterial and expressway facilities.

(g) Speed compliance: reduce incidence of speeding on selected collector, arterial and expressway corridors (to reduce crash rates and severity and to smooth traffic flow).

(h) Crash rates: reduce the crash rates, focusing on serious and fatal crashes, for travel in motor vehicles, bicycling, and walking.

(i) Mode share: increase mode shares of trips using transit, walking, and bicycling for work and non-work purposes.

(j) Toll and fare pre-payment: increase the proportion of tolls and transit fares using pre-pay technologies.

(k) Trip lengths: reduce average trip distances for work trip and non-work trip purposes.

(l) Transit service: increase the proportion of the population within ¼ mile of full-service transit.

(m) Enhancements: complete substantial additional portions of the Northeastern Illinois Greenways and Trails Plan.

(n) Bikeways: increase the mileage of City of Chicago and suburban bikeways, including off-street multi-use path and on-street bike lanes and marked routes.

(o) Safe routes to school: increase the proportion of primary schools with approved school travel plans.

(p) Value pricing: broaden deployment of value pricing to larger portions of the highway system.

(q) ITS: increase proportion of expressways and arterials subject to surveillance to determine congestion, travel times, and to detect incidents.

(r) Expressway incident management: broaden coverage of highway incident response vehicles to remainder of the expressways and tollways within the Chicago urbanized area.

(s) Arterial incident management: develop and implement arterial incident management plans for selected arterial corridors.

(t) Arterial access management: develop and implement access management plans for selected regional arterial corridors.

(u) Bicycle and pedestrian accommodations: increase the proportion of highway construction projects that include appropriate bicycle and pedestrian accommodations as part of highway construction activities.

(v) Bus rapid transit: implement transit signal priority on selected regional arterial corridors.

(w) Walkability: Increase the proportion of new development and re-development that is walkable.

3.1.3.2 Congestion Management: Management and Operation Strategies

The CMS's "Congestion Mitigation Handbook," provides an overview of strategies to respond to congestion. Most of these strategies are focused on management and operations. The Handbook provides "guidelines on identifying and analyzing strategies and on conducting post-implementation evaluations. The handbook includes an overview of alternative strategies, detailed descriptions of individual strategies," and other materials.[51] *The RTP continues to recommend the following strategies for consideration and implementation as appropriate, within the framework of the Congestion Management Process. The strategies include both prima facie operating improvements as well as the provision of capital to improve management and operations.*

Travel Demand Management:

TDM strategies reduce the demand for peak-period single-occupant vehicle travel.[52] 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.

- *Ridesharing Programs. Ridesharing can reduce congestion by reducing the number of vehicle trips, in turn leading to reductions in VMT.*

- *Car Sharing Programs. Car sharing reduces VMT by reducing vehicle ownership; cars are available when needed, but discretionary trips may be more likely made by transit or non-motorized modes.*
- *Alternative Work Arrangements. Alternative work arrangements reduce VMT by providing work sites closer to homes, or by spreading traffic to non-peak periods.*
- *Transit and Rideshare Incentives. Economic incentives for transit and ridesharing can reduce the costs of these modes, encourage their use, and thus reduce VMT.*
- *Parking Management. Parking management manages the cost of parking, reduces its availability, provides information regarding availability, so as to reduce travel demand and reduce excess VMT searching for parking spaces.*
- *Guaranteed Ride Home Programs. Guaranteed ride home programs reduce VMT through increased transit use by assuring transit users a way home should they need to travel when transit is not available.*

Transportation System Management (see also Strategic Regional Arterial System in Section 3.2, Strategic Systems)

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.

- *Traffic Signal Improvements. Traffic signal improvements improve traffic flow and/or provide priority or preemption capabilities. Traffic signals need to be optimized for traffic flow at individual sites while maintaining local access. Traffic signals are coordinated to provide smoother flow for vehicle platoons and reduce crashes. Priority is sometimes given to transit or other vehicles, allowing longer green times to accommodate transit schedules. Preemption is given to emergency vehicle needs or to clear railroad grade crossings.*
- *Geometric improvements. Geometric improvements are "physical improvements that may involve adjustment to the number or arrangement of travel lanes at intersections or on limited segments of a roadway." Intersection improvements include restriping, channelization, adding turn lanes, installing traffic islands, modifying the intersection angle, and changing corner radii (increasing or decreasing). Segment improvements may include expressway auxiliary lanes, passing lanes, truck climbing lanes, bus turnout lanes, widened shoulders, one-way couplets, medians, and reversible lanes. Geometric improvements generally smooth traffic flow and/or reduce crashes.*

- *Time of day restrictions. Time of day restrictions move travel demand to off peak periods or, in the case of parking restrictions, increase peak-period travel capacity.*
- *Ramp metering. Ramp meters are used to assure that merging traffic does not exceed the merge area or weave area's capacity to absorb that traffic at a point. Ramp meters spread out the entering vehicles. Ramp meters are also used to control overall flow to assure that downstream traffic flow is maintained.*
- *Commercial Vehicle Improvements. Geometric, sign and signal improvements focused on commercial vehicle traffic can smooth traffic flow and reduce crashes (see freight strategic system).*
- *Construction Management. Enhanced construction management reduces the duration and scope of delay resulting from project construction.*

Encourage High-Occupancy Vehicle Use

- *HOV Priority Systems. High-Occupancy Vehicle priorities reduce delay for vehicles with multiple occupants, so they encourage carpooling and vanpooling, thereby increasing person throughput for a given capacity and reducing VMT.*
- *HOV Support Services. HOV support services include preferential parking, park-and-ride facilities, and other services to make carpooling easier, thus reducing VMT and increasing person throughput.*

Public Transit Capital Improvements (see also Strategic Regional Transit System)

- *Exclusive Right-of-way Facilities. Exclusive right-of-way facilities reduce conflicts between public transit and other transportation system users. Examples include rail facilities, busways, bus bypasses of signal queues, or bus lanes on roadways.*
- *Fleet Improvements. Fleet improvements include modernized vehicles for quicker passenger loading and unloading, improved communications equipment, improved maintenance profiles, and faster fare collection, all to improve system efficiency and effectiveness.*
- *Transit support facilities. Transit support facilities, such as new or modernized yards or maintenance facilities, can improve efficiency. Other support facilities, like shelters and park-and-ride lots, make transit use more convenient and comfortable, thus encouraging transit use and reducing VMT.*

Public Transportation Operational Improvements (see also Strategic Regional Transit System)

- *Transit Service Improvements. Transit service improvements include route changes, frequency, hours of operation, and schedule coordination. Such improvements can reduce travel times and increase transit ridership, reducing VMT.*
- *Transit Marketing and Information. Transit marketing and information is the provision of information to the public, along with the use of information to better manage and coordinate transit operations. Such coordination may include schedule, fare, and customer information coordination. Providing and using this information can reduce transit travel times and attract new transit riders.*

- *Fare Incentives. Fare incentives can be structured to encourage transit use, reduce the cost of fare collection, and encourage off-peak travel or travel by students or seniors, attracting new riders and reducing VMT.*
- *Traffic Operations for Transit. Operations favorable to transit include signal priority for transit, queue bypass, bus stops, and off-street turn-around facilities. Such operations can improve transit travel times and operations efficiencies.*

Encourage Use of Non-Motorized Modes (see also Pedestrian and Bicycle Strategic Regional System)

- *Bike/Ped Infrastructure Improvements. Infrastructure improvements include facilities for bicyclists and pedestrians to travel along and across transportation facilities and elsewhere. Providing safe and comfortable walking and bicycling infrastructure encourages transit use and reduces VMT.*
- *Bike/Ped Support Services. Bike/Ped Support services, such as bicycle parking, pedestrian signals, benches, and bike route maps, encourage walking and bicycling, encourage transit use, and reduce VMT.*

Congestion Pricing

- *Road User Fees. Road user fees are charges for vehicles to use a particular road or enter a designated area. These fees can be targeted by time of day, at points of operations problems, or upstream of bottlenecks or other areas of congestion. Such fees can be used to smooth traffic flow, improve reliability, or reduce VMT.*
- *Parking Fees. Parking fees can be increased for parkers, perhaps only in peak periods, to discourage driving to or through congested areas, thus reducing congestion and VMT.*

Growth Management[53]

- *Compact Development. Compact development provides for shorter travel distances and encourages transit and non-motorized modes, reducing VMT.*
- *Redevelopment and Infill. Redevelopment and infill allow existing infrastructure to be used, often in areas that are amenable to transit and non-motorized transportation.*
- *The Location-Efficient Mortgage. Location-efficient mortgages are a financial incentive linking potential transportation cost savings inherent in transit-oriented neighborhoods to improved mortgage financing opportunities and/or terms. This may encourage homeownership in transit-oriented neighborhoods.*
- *Mixed-Use Development. Mixed-use developments reduce the distance between origins and destinations, thereby increasing transit and non-motorized trips.*
- *Jobs-Housing Balance. A jobs-housing balance approach would, for each subregion, balance the number of jobs and dwelling units by income range, reducing VMT by reducing the need to commute great distances.*
- *Corridor Land Use and Transportation Coordination. Corridor focused land use and transportation coordination is a mechanism for local governments to cooperatively plan land development to improve traffic operations (e. g, providing local connectivity to keep local traffic off arterial roads).*

Access Management

- *Driveway Management. Driveway management, including regulations and engineering improvements to reduce the number of driveways for development, share driveways among developments, access from sidestreets or alleys, reduces arterial travel delay and reduces crashes.*
- *Median Management. Medians, with strategic placement of median break, control development access and left turn delay. Medians reduce arterial delay and reduce crashes.*
- *Frontage Roads. Providing land access with frontage roads instead of arterials may reduce arterial delay and crashes.*

Incident Management

- *Incident Detection/Verification. Rapid incident detection, by service patrols, travel time inspection, incident reports, and cameras, can reduce the delay and secondary crashes associated with the incident.*
- *Incident Response. Rapid incident response reduces delay and secondary crashes. Advance planning for incident scenarios with response plans assist in this, with adequate and appropriate response vehicles and personnel.*
- *Incident Clearance. Rapid incident clearance reduces delay and secondary crashes.*
- *Incident Information/Routing. Incident information can provide guidance to those affected by an incident. Travelers approaching an incident can be guided away from the incident. These strategies can reduce delay and secondary crashes.*

Intelligent Transportation Systems

- *Advanced Traffic Management Systems. Advanced traffic management systems, usually focused on a traffic management center, integrates incident management and transportation system management strategies to reduce delay and crashes and improve reliability.*
- *Advanced Traveler Information Systems. Advanced traveler information systems collect, compile, process, and disseminate real time information, pre-trip or en route, about travel times, schedules, incidents, to enhance travel choice and reduce travel times and improve reliability.*
- *Advanced Public Transportation Systems. Advanced public transportation systems include a variety of technologies to improve transit system performance and usability. Examples include electronic fare collection and transit vehicle tracking, which can provide user and management information to improve reliability.*
- *Commercial Vehicle Operations. Commercial vehicle operations techniques improve freight operations and efficiency through such systems as weigh-in-motion, credentialing, and navigation.*
- *Advanced Vehicle Control Systems. Advanced vehicle control systems provide informational, navigation or control technologies to, for example, prevent operation by*

impaired drivers, provide routing assistance, and alert operators to maintenance requirements.

Capacity Expansion

- *Expressway Lanes. Additional expressway lanes can provide safer operations, less delay, and improved reliability. Auxiliary lanes smooth traffic flow by facilitating conflicting maneuvers away from mainline lanes. Additional expressway through lanes may provide better lane balance.*
- *Arterial Lane Additions. Arterial lane additions may have beneficial effects on safety and travel time if planned properly, so care should be exercised to assure impact on signal cycle lengths and delay as well as multi-modal impacts.*

In addition to the long-standing strategies listed above, Shared Path 2030 explored in greater depth management and operations strategies of interest to process stakeholders. Introducing such capital-oriented and non-capital-oriented management and operations strategies is supported by the following RTP objectives:

- Maintenance, reconstruction and replacement
- *Congestion Management Process*
- 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. *The following subsections provide more information and analysis of strategies in the following areas:*

- *Maintenance and reconstruction*
- *Transportation system safety*
- *Transportation system security*
- *Rail, highway and intermodal freight*
- *Intelligent transportation systems*
- *Transit service coordination*

3.1.3.2.1 Maintenance[54] 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.[55]

Maintenance and reconstruction projects should also include upgrades to existing infrastructure using new technologies, updated operating procedures and improved materials.

To assure financing of capital and operational costs, CMAP and partner agencies will develop a financial plan. The plan will include strategies to increase revenues, control expenditures, and preserve the existing transportation system and explore the potential for public-private partnerships. Costs for system preservation were estimated with the development of the original RTP, and have been recently updated and posted.[56] *These estimates, as well as capital development estimates, need to be updated as part of the regional financial plan to support the region's next comprehensive planning effort.*

The RTP also provides specific guidance for *maintenance* and reconstruction *of* 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[57] 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.[58]

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[59] 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, *pedestrian facilities, access to transit service, siting of* 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[60] as part of rail transit maintenance and reconstruction projects.

3.1.3.2.2 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.[61]

Promoting transportation safety is primarily focused on reducing injuries and loss of life associated with travel. However, the RTP also acknowledges secondary and tertiary effects of crashes. Thus, implementing effective strategies to reduce crash risk and exposure will also reduce the economic losses and significant transportation system disruptions that result from crashes.

Federal and state law significantly governs *travel safety, including the design and operation of transportation facilities; vehicle design and operation; and human behavior. In addition, safety is the* subject of intense public education efforts.[62] 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.[63] *Safety planning for Shared Path 2030 involved numerous stakeholder groups and processes. This helped to identify strategies to improve transportation system safety. Stakeholder groups and processes are listed in the Appendix.*

With regard to highway safety, operational improvements to highways and *streets should* increase the ability to operate a vehicle safely. The *smoothed* flow of traffic and the *control* of conflict points, common in many projects, are principally intended to reduce the possibility of crashes.[64] *The RTP also supports the increasing focus promoting bicyclist and pedestrian travel along and across transportation facilities, safely.* [65]

The RTP acknowledges the regulated aspects of transportation safety. *The RTP also acknowledges the Illinois Comprehensive Highway Safety Plan and transit agencies' System Safety Program Plans. The RTP supports implementation of the strategies identified in these plans, as well as other strategies to improve safety. Strategies of note recommended by the RTP include:*

- *Developing safety information systems to facilitate better decisions about safety. Such systems should improve the quality and timeliness of crash data; identify and integrate all crash databases for easy user access; involve stakeholders appropriately; and facilitate the selection of appropriate crash countermeasures. Mobile capture and reporting of crash reports is an important initiative in this information system, and is recommended by the RTP.*

- *Improving highway-rail crossing safety. Such improvements may include grade separations to eliminate conflicts,[66] improved sight distances, improved crossing control devices and operations (including coordination with highway traffic control devices upstream and downstream), and continued efforts to educate the public about rail safety and enforce safety rules.[67] Closing of railroad crossings may be an option when they facilitate only minimal auto and truck traffic and when the closure would not cause longer travel distances or degradations in level of service; if a highway crossing is closed, maintaining safe pedestrian*

crossings at or near the closed highway crossing is recommended in urban and suburban areas.[68]

- *Increase intersection safety by such strategies as improved signal conspicuity and enforcement, including expanded red-light running cameras; improved sign visibility through better retro-reflectivity or illumination; improved sight distances at intersection approaches; improved access management near intersections; and improved designs.*

- *Increase safety of large truck operations; identifying and addressing truck accident locations and operators with poor safety experience, enhancing related law enforcement, and providing real-time congestion information to truck operators to warn of impending backups.*[69] *Additional strategies to improve large truck safety include separated truckways and encouraging trucks' use of freeways and tollways instead of arterial alternatives.*

- *Reduce roadway departure by improving highway signs and markings; apply forgiving roadway design concepts on high-speed highways;*[70] *and maintain low vehicle operating speeds in urban and suburban environments with roadside hazards through engineering, education, and enforcement.*

- *Improve the safety of vulnerable users (bicyclists, pedestrians, and motorcyclists). Strategies specifically applicable to motorcyclist safety include identifying and addressing areas with disproportionate crash rates; reduce motorcycle crashes resulting from errors by other drivers; reduce excessive motorcycle speeds; implement comprehensive motorcycle rider education programs for novice and experienced riders; consider special needs of motorcycles in highway design; and pursue motorcycle helmet laws.*[71] *Strategies to improve bicycle and pedestrian safety include provision of sidewalks, bike lanes, and wide paved shoulders; maintaining low vehicle speeds on urban and suburban streets and arterials; develop off-system trails. In addition, education and enforcement to promote right-of-way laws may help*[72]*. Additional pedestrian safety strategies have already been adopted with the 2030 RTP Capital Element's Strategic Bicycle and Pedestrian System.*[73]

- 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.[74] 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.[75] 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 *the safety strategies discussed in the following sections*.

Safe Routes to School[76]

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 require particular attention to design details that contribute to their safety.[77] 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.[78] 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[79] and driver information.[80]

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. 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 to slow down automobiles in key places and allow the streets to be used safely by pedestrians.

The RTP recommends that transportation and land use can be planned together to reduce risk exposure by encouraging modes of travel less likely to cause crashes (e.g., transit) and by safely facilitating non-motorized travel. This implies short block lengths to provide a thick network of routes to minimize detours in walking and bicycling routes. Work and non-work destinations, as well as fast and frequent transit service, should be close to residences. This also implies sufficient density to support transit and commercial activity.

The RTP also recommends safety through community design practices to encourage less motor-vehicle miles of travel, safe travel choices and behavior, as well as reduce exposure to risk. This implies interesting, vibrant streets close to residences. In addition, commercial activity should front the sidewalk, with zero-lot-line or minimal setbacks, all so that walking, bicycling, and transit convenience and activity is maximized.[81]

3.1.3.2.3 *Transportation System Security*

The region's transportation system is vital to the welfare of our residents. In addition, the system provides several unique corridors for commercial goods and passenger transportation that are important for the country. Therefore, the security of the system must be addressed.

The RTP supports coordinated responses now under way to address identified security threats. These responses include the following:

- *Overarching goals in the "Illinois State Transportation Plan."*[82]

- *Detailed Illinois Terrorism Task Force work to develop and implement the state's terrorism preparedness strategy. The Illinois Terrorism Task Force meets monthly, following secure procedures. The MPO/CMAP staff, as well as member agencies, participates in these efforts. Staff provides data and analysis as requested. The Task Force has a number of standing committees, including ones for Transportation and for Communications.*[83] *Work included developing and implementing an evacuation plan and alternate routes plan for the City of Chicago Central Business District, developing a contra-flow evacuation plan on primary interstates in the Chicagoland area, with a travel demand management annex; a bridge recovery program to reduce disruption by providing timely structural evaluations; and a Bridge Security Program, including lighting, cameras and fencing; transit security; inland waterway and port security; and traffic management equipment, as well as developing communications procedures for emergency situations..*[84]

- *Regional traffic management centers, including, as a good practice, the Chicago Office of Emergency Management and Communications, which brings surveillance and emergency response together with traffic management and representation by all city departments for coordinated incident response under executive direction.*

- *Transit agency development of a System Security Program Plan. Integrated transit security program plans have been developed by the region's transit operating agencies and are being implemented. Each agency is responsible for implementing the plan with current or newly identified funds through the Transportation Improvement Program.*

In addition, the RTP acknowledges that additional work has taken place and will take place to address security by transportation providers and public safety offices of governments at all levels, but that much of this work must not be documented publicly. It is known that this work includes a vulnerability assessment of transportation infrastructure which will serve as a basis for developing a work plan for security. The RTP supports efforts to disperse threat risk to less important, less vulnerable targets and to design and construct transportation facilities to accommodate security needs.

The RTP supports efforts to deploy Intelligent Transportation System infrastructure to facilitate security by deterring, detecting, and responding to specific security threats, and by providing information to decision-makers and response personnel.

The RTP promotes strategies to coordinate incident response to minimize casualties and disruption. Evacuation procedures should assure the evacuation of vulnerable users. Communications plans should be in place to assure that coordinated actions are taken by the public and response personnel.

The RTP promotes multiple routes and modes being available. This facilitates a robust response to incidents.

3.1.3.2.4 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.[85] 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.[86]

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, *the Chicago Region Environmental and Transportation Efficiency Program (CREATE)* 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.[87]

The RTP supports freight strategies that demonstrate a benefit *to* 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.

3.1.3.2.5 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).[88] 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.[89]

- 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.[90] This includes a communications infrastructure that will provide electronic links to travelers, emergency responders, transportation/emergency response operations centers, roadside equipment and vehicles.[91]

3.1.3.2.6 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.

The RTP acknowledges the comprehensive regional planning process currently underway by the Regional Transportation Authority to develop the region's first Human Services Transportation Plan. The RTP anticipates that this plan will provide policy guidance and strategies for the region that support the goals of the RTP. In particular the RTP supports initiatives that will enable elderly individuals, individuals with disabilities, and low-income individuals to increase their mobility, gain increased access to jobs, medical facilities, and other services through increased coordination of services, reducing gaps in services, and planning for future increases in demand.

Not Included:

3.2 STRATEGIC SYSTEMS *(Omitted; Updated in Oct 2006)*

3.3 OCT 2003 CAPITAL ELEMENT *(Omitted; Updated in Oct 2006)*

Appendix

Part 1: Stakeholders Engaged in Safety Discussions

Shared Path 2030 Process, 2001 – 2007: CATS/CMAP Sponsored Events (Planning Information Forums, Soles and Spokes Workshops, etc.).

American Lung Association of Metropolitan Chicago
Baxter and Woodman
James J Benes and Associates
Cemcon Engineering
Center for Neighborhood Technology
Chicago Area Transportation Study
Chicago Metropolis 2020
Chicago Park District
Chicago Transit Authority
Chicagoland Bicycle Federation
Childrens' Memorial Hospital
Christopher Burke Engineering
City of Chicago, Department of Transportation
City of Chicago, Office of Emergency Management and Communications
City of Chicago Heights
City of Elgin
City of Highland Park
City of McHenry
City of Naperville
City of Park Ridge
City of Saint Charles
City of Woodstock
Civiltech Engineering
Cook County Forest Preserve District
Cook County Highway Department
DuPage County
DuPage Railroad Safety Council
Edwards and Kelcey
Federal Highway Administration, IL Div.
Federal Highway Administration, Midwest Resource Center
Federal Transit Administration
Forest Preserve District of DuPage County
Hampton, Lenzini and Renwick
Illinois Commerce Commission
Illinois Department of Natural Resources
Illinois Department of Public Health
Illinois Department of Transportation
Illinois Mountain Bikers Association
Illinois Trails Conservancy
Kane County Development Department
Kane County Division of Transportation
Kane/Kendall Council of Mayors
Knight Infrastructure
Lake County Division of Transportation
League of Illinois Bicyclists
T.Y. Lin International
McHenry County Department of Transportation
Metro Transportation Group
National Highway Traffic Safety Admin.
Northeastern Illinois Planning Commission
Northwest Indiana Regional Planning Cm.
Northwest Municipal Conference
Northwestern University
Oak Brook Safety Pathway Committee
Palatine-Willow Community Mobilization Team
South Suburban Mayors & Managers Assoc.
Strand Associates
Town of Cicero
Transystems
URS Corporation
Village of Bartlett
Village of Bolingbrook
Village of Buffalo Grove
Village of Cary
Village of Downers Grove
Village of Glenview
Village of Hoffman Estates
Village of Homer Glen
Village of LaGrange
Village of Lemont
Village of New Lenox
Village of Niles
Village of Northbrook
Village of Oak Park
Village of Orland Park
Village of Plainfield
Village of Richton Park
Village of Riverside
Village of Schaumburg
Village of Skokie
Village of Streamwood
Wheaton Park District
Wight Consulting

Part 2: Safety Processes with Shared Path 2030 Participation, 2001 – 2007

"Local Agency Highway Safety Improvement Program Workshop" in Orland Park on January 23rd, 2007

Mayor's Pedestrian Advisory Committee, 2006-2007.

"Safety Summit," Illinois Comprehensive Highway Safety Plan, July 19, 2006

"Safety Records," Division of Traffic Safety, May 2nd, 2006

"Safety Conscious Planning" IDOT Division of Traffic Safety, May 3, 2005.

"Transport Chicago" Metropolitan Conference on Public Transportation Research, June 2004.

"Safety Summit," Illinois Comprehensive Highway Safety Plan, March, 2005

[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 in lieu of SAFETEA-LU 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] The web address for the 2040 Regional Framework Plan is www.nipc.org/2040
[20] These are the basic principles of emerging federal and state guidance under the heading "context sensitive solutions" as applied to transportation facilities.
[21] 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.
[22] FHWA/FTA Memorandum, "Implementing Title VI Requirements in Metropolitan and Statewide Planning," October 7, 1999.
[23] The web address for the SAFETEA-LU Planning Regulations is
http://a257.g.akamaitech.net/7/257/2422/01jan2007/edocket.access.gpo.gov/2007/07-493.htm
[24] Chicago Wilderness, Biodiversity Recovery Plan, 1999.

[25] SAFETEA-LU, Public Law 109-59 Sec. 3005, amending 49 USC 5303 (k) (3), and Sec 6001, amending 23 USC 134 (k) (3)
[26] Ibid., amending (m)(1).
[27] *Protecting Public Surface Transportation Against Terrorism and Serious Crime: An Executive Overview* Mineta Transportation Institute, October 2001, p. 7.
[28] Ibid., ff.
[29] 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).
[30] 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.
[31] 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.
[32] 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.
[33] 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).
[34] This is intended to compensate for point-source "credits" that may have been acquired through a pollution control offset program.
[35] I.e., the necessity of owning and maintaining an automobile.
[36] *The Human Services Transportation Plan (HSTP) for the 7 county region is a federal requirement under the transportation reauthorization act, SAFETEA-LU. The website address is http://hstp.rtachicago.com/. Projects for FTA sections 5310 (Elderly Individuals and Individuals with Disabilities), 5316 (Job Access/Reverse Commute), and 5317 (New Freedom Initiative) must be derived from the HSTP starting in FY07.The Regional Transportation Authority (RTA) has begun the process of developing this plan. The completion of the HSTP is anticipated to be in July of 2007. Public meetings were held in April, 2007. It is intended that the HSTP will be a policy document that will help the region address various needs and gaps in services, in a manner that is consistent with the goals of the RTA's strategic plan and the 2030 RTP. The HSTP is being developed in cooperation with the MPO/CMAP.*

[37] 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).
[38] Specifically, the reduction of auto use for very short trips.
[39] Employment centers, commercial facilities, and multi-use activity centers that generate and attract thousands of daily trips and establish noticeable peaks in demand.
[40] Pedestrians, bicycles, autos and freight.
[41] Through the coordination of transportation planning and land development activities.
[42] Variety=alternative to private auto. Appropriate=demonstrating a balanced cost/benefit ratio.
[43] individually and through intergovernmental agreements.
[44] With regard to transit: emphasizing minimal out-of-vehicle and wait time.
[45] One useful method is transit-oriented development in the near vicinity of commuter rail or rapid transit stations.
[46] 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.

[47] *Context Sensitive Solutions: Detailed Guidelines for Practice. Illinois Department of Transportation.*
[48] Design transportation landscaping to enhance biodiversity, improve water quality, better manage stormwater and appear natural.
[49] CATS, Congestion Management System for Northeastern Illinois, May 2002.
[50] For example, IDOT regularly conducts a "Motorist Opinion Survey."
[51] CATS. *Congestion Management System for Northeastern Illinois.* 1997.
[52] For example: parking management, HOV parking, rideshare Programs, employer tax incentives, flex-time and telecommute work options.
[53] Some of the "growth management" strategies are not strictly management and operations, but are included here for completeness regarding the Congestion Management Process.
[54] 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.
[55] 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.
[56] See www.sp2030.com
[57] I.e., a major interchange between one expressway/tollway and another expressway/tollway.
[58] 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.
[59] 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.
[60] For example, travel information kiosks, active transit station signs, vehicle tracking, signal preemption and electronic fare collection.
[61] 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)).
[62] 23USC402 (a).
[63] 23USC134 (f).
[64] Recent major highway reconstruction projects on I-290 and I-90/94 included facilities redesigned to greatly enhance safe vehicle operation.
[65] USDOT, 2002 Certification Review of Transportation Planning in Northeastern Illinois.
[66] Twenty-five railroad grade separations are identified in the CREATE program, included as a central element of the *2030 RTP's* Strategic Regional Freight System.
[67] For example, IDOT, *Illinois Comprehensive Highway Safety Plan*, 2005, p. 26.
[68] U.S. DOT. *Secretary's Action Plan: Highway-Rail Crossing Safety and Trespass Prevention.*
[69] IDOT, *Illinois Comprehensive Highway Safety Plan*, 2005, p. 37
[70] IDOT, *Illinois Comprehensive Highway Safety Plan*, 2005, pp. 40-41.
[71] IDOT, *Illinois Comprehensive Highway Safety Plan*, 2005, pp. 49-50, and Association of State Highway and Transportation Officials *Strategic Highway Safety Plan*, Goal 11: Improving Motorcycle Safety and Increasing Motorcycle Awareness. http://safety.transportation.org/elements.aspx?cid=VEH&gid=11
[72] Additional understanding and perhaps strengthening pedestrian right-of-way is required. *Illinois Vehicle Code (625 ILCS 5/)* clarifies who must yield right-of-way (not who has right-of-way); however, much of this information has not made it into the popular summary, *Illinois Rules of the Road*, (http://www.cyberdriveillinois.com/publications/pdf_publications/dsd_a11212.pdf) so appropriate right-of-way knowledge has not entered the conscious of drivers or pedestrians.
[73] Chicago Area Transportation Study, *2030 Regional Transportation Plan for Northeastern Illinois, Major Capital Update.* October, 2006. http://www.sp2030.com/2030_RTP_Capital_Element_Update.pdf pp. 55-57.
[74] 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.
[75] 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.
[76] STPP, Safe Routes to School, 2002 Summary, www.transact.org. See also the IL SRTS website:

http://www.dot.il.gov/saferoutes/saferouteshome.aspx and the National Center for Safe Routes to Schools:(http://www.saferoutesinfo.org/resources/index.cfm).

[77] 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.
[78] Metra, Key Station Accessibility Plan, July 1992. CTA, Chicago Transit Authority Rail Plan to Meet Requirements under ADA, July, 1992.
[79] 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.
[80] Provided to the driver by signalization, signage and pavement markings.
[81] Northern and Western European countries which have combined safe non-motorized travel facilities with land use and design to promote walking, bicycling, and transit have overall traffic death rates per population as that are as little as 41% of U.S. rates (e.g., 14.9 deaths per hundred thousand people in the U.S., and 6.1 deaths per hundred thousand in the U.K. and the Netherlands). See Chicago Area Transportation Study, *Soles and Spokes Plan Task 2 Final Report.* October, 2004, pp. 1-3, http://www.solesandspokes.com/Task2FinalReport.pdf
[82] Illinois Department of Transportation, Illinois State Transportation Plan. 2005 p. 35.
[83] Information about the Illinois Terrorism Task Force, including a full list of membership and committees, is at http://www.ready.illinois.gov/ittf/default.htm
[84] Illinois Terrorism Task Force. 2005 Annual Report of March, 2006 *and 2006 Annual report dated March 2007. (see website at http://www.ready.illinois.gov/ittf/default.htm. The ITTF has standing focus areas of Transportation, Communications, Training , Public Information, Crisis/Prevention, Bioterrorism, Volunteers and Donations, Information Technology, Elected Officials, Fire Mutual Aid, Law Enforcement Mutual Aid and Science & Technology. The MPO/CMAP is listed as CATS in the ITTF documents for 2006 and before.*
[85] 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.
[86] 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).
[87] CREATE Plan, 2003.
[88] CATS, Strategic Early Deployment Plan for Northeastern Illinois, June 1999.
[89] 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.
[90] 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.
[91] 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.

[92] The Regional Transportation Authority is preparing this plan.