ULI Chicago
Infrastructure Initiative

Regional Infrastructure in Northeastern Illinois

Infrastructure's Role in Maintaining Greater Chicago's Competitive Edge

The Chicago metropolitan area of today inherited infrastructure systems that position the region as a globally competitive economic engine. Aging infrastructure, increasing congestion, and projected population increases, however, strain the region's infrastructure and create growing demand for scarce public resources and capital improvement dollars. ULI Chicago's Infrastructure Game Changers process identified and evaluated plans for nine regionally significant infrastructure projects and their associated land use effects to increase connectivity, foster equitable growth, and retain the region's competitive edge.

As the Chicago region grows, its infrastructure must continue to provide a solid foundation for economic prosperity while enhancing the region's quality of life.

The Chicago Metropolitan Area

In addition to the seven counties of northeastern Illinois, the Chicago metropolitan area reaches north into Wisconsin and east into Indiana. Flanked by Lake Michigan on the east and lying on a flat plain, the region has certain unique characteristics that have long attracted streams of residents and economic activity. People were first drawn by the connectivity that the area offered between the Mississippi River and Lake Michigan via local waterways. With the advent of rail, development spread from the lakefront at the mouth of the Chicago River to the new rail corridors. This fingerlike development pattern became more dispersed after World War II, as automobile transportation began to direct land use decisions and dominate infrastructure investment.

The Greater Chicago region has used its central location in North America to position itself as the economic crossroads of the United States. Boasting a gross regional product of over $371 billion in 2008, the third largest in the nation, the region is recognized as a global economic center and a national transportation hub. Large volumes of passengers and goods are transported to, from, and within the region on a daily basis over its roads, railways, waterways, and airspace. Approximately one-quarter of the nation's rail freight originates, passes through, or terminates in Chicago, and O'Hare International Airport is the world's fourth-busiest airport. The region also continues to benefit from its proximity to Lake Michigan, one of the largest reservoirs of freshwater in the world. Four of every five Chicago-area residents receive their drinking water from the lake. The region has remained competitive despite the recent recession, ranking sixth in the world for its economic influence in *Foreign Policy*'s Global Cities Index 2010.

Northeastern Illinois has grown to an estimated 8.6 million people in 2010 and is expected to add another 2.4 million

residents by 2040. This population increase is comparable to incorporating the population of the Denver metropolitan area into the Greater Chicago region. As the Chicago region grows, its infrastructure must continue to provide a solid foundation for economic prosperity while enhancing the region's quality of life.

Maintaining Chicago's Competitive Edge

With so many people and with such large volumes of goods passing through the region, the Chicago area's infrastructure is some of the nation's most extensive. The region has the second-largest rapid-transit network in the nation and the fourth-busiest highway network. Extensive water delivery systems pump Lake Michigan's water throughout the region.

As complete as this infrastructure network may seem, it is also among the most aged and insufficient networks in the nation. In 2008, the Pew Center on the States gave Illinois a grade of "C–" for infrastructure, among the lowest grades in the nation. The American Society of Civil Engineers concurred, giving Illinois a "D+" grade for infrastructure in 2009. Between the resources required for restoring and building infrastructure and the projected regional growth lies a staggering funding gap. The Chicago Metropolitan Agency for Planning (CMAP), charged with regional planning for the seven counties of northeastern Illinois, estimates that maintenance and operations of just the *current* transportation system at a "safe and adequate" level will cost $332.7 billion over the next 30 years—that sum is 95 percent of the $385 billion projected revenue for the same period.

In addition to aging infrastructure, the level of congestion in the regional transportation network threatens the economic competitiveness and viability of the metropolitan area. The Texas Transportation Institute ranked Chicago as the third-most-congested urban area in the country in terms of hours of travel delay, costing the regional economy over $4.2 billion annually.

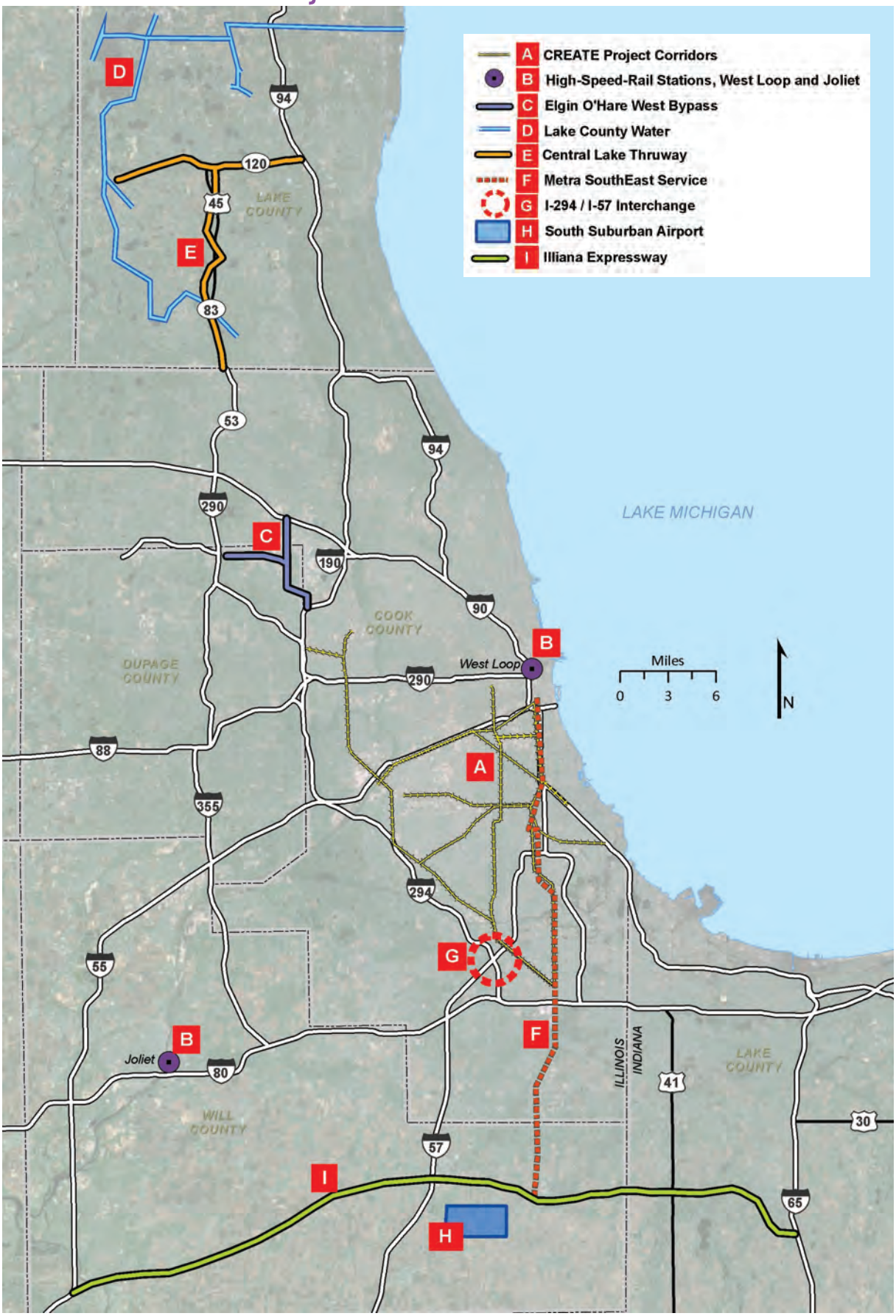
Suburban Infrastructure of Regional Significance

This report presents a portfolio of infrastructure projects from the northern, southern, and western areas of the Greater Chicago region, totaling at least $15.42 billion in regional infrastructure investment. Project summaries,

Project Summaries

CREATE (Chicago Region Environmental and Transportation Efficiency)	Package of 71 rail improvements to relieve freight-rail congestion with additional benefits to passenger rail
High-Speed-Rail Stations, West Loop and Joliet	Proposed intermodal passenger stations in Chicago's West Loop and Joliet that would accommodate high-speed rail service linking major midwestern cities
Elgin O'Hare West Bypass	Extension of the Elgin O'Hare Expressway that will link to a proposed O'Hare western bypass highway
Lake County Water	Proposed 57 miles of pipe to connect 12 Lake County suburbs to Lake Michigan water
Central Lake Thruway	A nine-mile, four-lane "modern boulevard" bypass on Illinois Route 120, connecting to an extension of Illinois Route 53 north
Metra SouthEast Service	Proposed 33-mile commuter-rail line from LaSalle Street Station to Balmoral Park
I-294/I-57 Interchange	Construction of an interchange where I-294 and I-57 cross without connection
South Suburban Airport	Proposed south suburban airport to complement existing regional airport system
Illiana Expressway	Proposed expressway connecting Illinois's I-57 to Indiana's I-65, to be integrated to existing and proposed intermodal facilities in Will County, Illinois

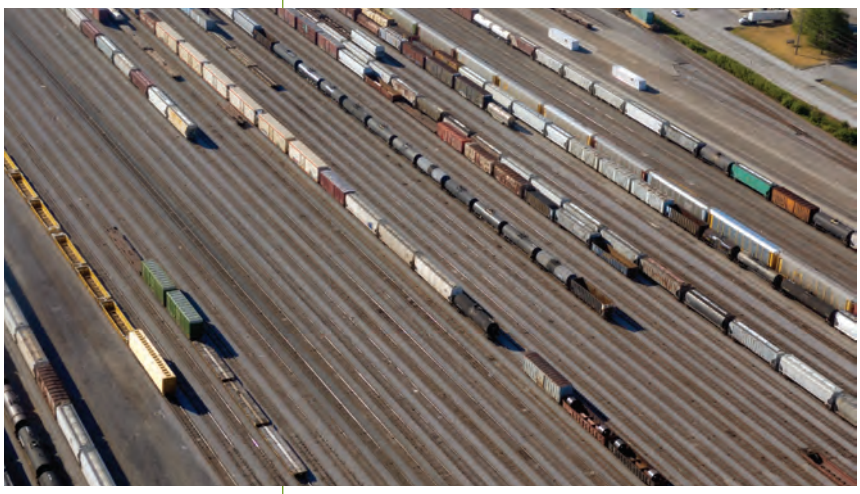
Infrastructure Projects in Northeastern Illinois



including land use, assessments of the evaluation criteria, and recommendations for next steps, are available in the project case studies.

With respect to the many infrastructure projects that provide more localized revitalization and development efforts, this study chose to focus on intermodal transportation systems and resource allocation projects of regional significance. These projects have the potential for regional, subregional, and interjurisdictional impact and support the entire region's economic and development future.

In addition to selecting projects with the potential for regional impact, the committee chose to focus largely on projects located outside Chicago's core, in areas that experienced the fastest and most transformative growth in the past decades. Because these suburban locations will continue to absorb a significant portion of the region's expected growth, appropriate infrastructure investment will support the impending 2.4 million people as well as the regional development preference for strategic infill and land use.



Connecting Infrastructure Investment and Land Use Objectives

In the *GO TO 2040* regional plan, CMAP sets targets for infill development as a way to create additional opportunities for compact, mixed-use, walkable development in the Chicago region. Compact development also provides environmental benefits such as protecting open space and promoting energy efficiency. Unless it intentionally aligns regionally significant infrastructure projects to these development preferences, the Chicago region will miss an opportunity to shift from infrastructure *spending* to infrastructure *investment* and the chance to use infrastructure as a catalyst to support desired land use outcomes.

Coordination with land use occurs on three levels: regional, local, and development site. On the regional level, coordination considers access to jobs, movement of goods, housing, education, and services. On the local level, coordination looks at creating a good fit between the infrastructure project and existing and future land uses nearby. For specific sites, coordination typically takes on issues related to urban design.

Strategic infrastructure projects create opportunities for new development and economic growth. Coordinating with land use is a way to maximize the benefits—and the returns—of infrastructure projects.

ULI Chicago's Infrastructure Game Changers

As part ULI Chicago's study of infrastructure, ULI Chicago developed and tested the Infrastructure Game Changers analysis process. The Infrastructure Game Changers process is a national model for identifying significant infrastructure projects and their associated land use aspects, including catalytic development projects.

Designed to be led by a group situated outside of both government and the direct providers of infrastructure, the process includes

- A holistic approach to how infrastructure fits into a region's long-term sustainability and economic health;
- The incorporation of the private, nonprofit, and public sector perspectives into infrastructure decision making; and
- An emphasis on implementation, through both its focus on planned infrastructure projects and the inclusion of finance and political support in the evaluation criteria.

Analysis Process

Step 1: Select a region, subregion, or district.

Step 2: Scan *planned* infrastructure projects for the selected area. (This step may also include the identification of *existing* infrastructure resources that are underused or that present opportunities.)

Step 3: Evaluate projects according to a variety of criteria. ULI Chicago's Infrastructure Committee chose the following criteria: economic competitive-

ness, opportunity, environmental sustainability, support, and funding and financial feasibility (see definitions below).

Step 4: Draft a working list of significant infrastructure projects and associated land use aspects.

Step 5: Test and build support for the working list through outreach to project partners and relevant communities and stakeholders.

Step 6: Document the final list of significant infrastructure projects and their associated land use aspects.

Evaluation Criteria

Economic competitiveness: the extent to which the proposed project enhances the economic competitiveness of the entire Greater Chicago region (the tristate metropolitan area) by increasing the efficiency, productivity, or attractiveness of the entire region. Examples include significantly reducing freight or passenger travel times, expanding freight capacity, removing significant infrastructure barriers to regional development, or developing significant amenities that boost the attractiveness of the region. Projects considered significant for economic competitiveness have the potential to attract capital investment and jobs to, or to stem the loss from, the Greater Chicago region.

Opportunity: the extent to which the project provides economic or quality-of-life opportunities for the communities or neighborhoods most directly affected by the project or for other underserved populations. Opportunity includes improved access to jobs and education.

Environmental sustainability: the extent to which the proposed project improves the quality of the environment, including but not limited to improving environmental quality by reducing carbon emissions, protecting identified natural areas, promoting the more efficient use of water resources, and reducing water or air pollution.

Support: the extent to which the project has support from elected officials, key agencies, major stakeholders, and perhaps even the general public.

Funding and financial feasibility: the extent to which funding sources have been identified to cover project costs and the potential for the project to attract private sector investment in the form of public/private partnerships.

After ULI Chicago targeted the study of infrastructure outside the region's central core, the Suburban Subcommittee was formed. Using the evaluation criteria and focusing the study toward projects with implications for the Greater Chicago region, the Suburban Subcommittee produced a list of 25 potential projects. At a workshop held June 1–2, 2010, ULI members reviewed the proposed projects and selected nine for additional analysis. After careful research, including interviews with stakeholders and the support of two graduate student interns, the Regional Infrastructure in Northeastern Illinois process was deemed ready for final documentation in fall 2010.

Because these suburban locations will continue to absorb a significant portion of the region's expected growth, appropriate infrastructure investment will support the impending 2.4 million people as well as the regional development preference for strategic infill and land use.

Acknowledgments

Regional Infrastructure in Northeastern Illinois, a product of ULI Chicago's Infrastructure Committee and its Curtis Infrastructure Initiative, was made possible through the support of countless hours from dedicated volunteers and the ULI/Curtis Regional Infrastructure Project. The Infrastructure Committee co-chairs acknowledge the contributions from members of the Suburban Subcommittee and are grateful for the assistance of S.B. Friedman and Company. A list of all participants in ULI Chicago's Infrastructure Initiative Committee is available at http://Chicago.uli.org.

Stephen Friedman, Gregory Hummel, and Paul Shadle
ULI Chicago Infrastructure Committee Cochairs

Infrastructure Committee Members

Benjamin Ahring, Cowhey Gudmundson Leder, Ltd.
Mark Angelini, Mercy Housing Lakefront
Jeffrey Arnold, Joseph Freed and Associates LLC
MarySue Barrett, Metropolitan Planning Council
David Bennett, Metropolitan Mayors Caucus
Lee Bey, Chicago Central Area Committee
Kathy Brown, Northwest Indiana Regional Development Authority
Susan Campbell, University of Chicago
Denise Casalino, AECOM
Robert Chodos, Colliers, Bennett & Kahnweiler, Inc.
Robert Cowhey, Sr., Cowhey Gudmundson Leder, Ltd.
Bob Dean, Chicago Metropolitan Agency for Planning
Jon DeVries, Roosevelt University
Cassandra Francis, Clayco Development and Construction
Stephen Friedman, S.B. Friedman and Company
Stephen Galler, The Habitat Company LLC
David Galowich, Madison Realty Group, Inc.
James Giblin, TranSystems, Inc.
Carl Giometti, JTS Architects
John Green, Centrum Properties, Inc.
Charles Hanlon, Land Vision, Incorporated
Bill Hanna, Northwest Indiana Regional Development Authority
Gregory Hummel, Bryan Cave, LLP
Jeremiah James II, Edward R. James Partners, LLC
Lavon Johns, Pugh, Jones, Johnson & Quandt, PC
Dana Levenson, RBS Global Banking & Markets
Dirk Lohan, Lohan Anderson Architects
Mike Meagher, James McHugh Construction Co.
David Meek, The Law Office of David Meek, LLC
Leigh Morris, Indiana Economic Development Corporation
David Narefsky, Mayer Brown LLP
Michael Pagano, University of Illinois at Chicago
Edward Paesel, South Suburban Mayors & Managers Association
Stephen Park, The Alter Group, Ltd.
Ronan Remandaban, Lee & Associates of Illinois, LLC
Donald Resnick, Jenner & Block, LLP
Tina Rongers, Policy Analytics, LLC
Paul Shadle, DLA Piper LLP (US)
Craig Sklenar, City of Evanston
Peter Skosey, Metropolitan Planning Council
Greg Spitzer, Paul, Hastings, Janofsky & Walker LLP
Frank Transue, Walker Parking Consultants/Engineers
Richard Wilson, Skidmore, Owings & Merrill LLP
William Woodley, The Community Builders, Inc.
Ruth Wuorenma, Neighborhood Capital Institute

ULI Staff

Cynthia McSherry, ULI Chicago
Christine Kolb, ULI Chicago
Sarah Jo Peterson, ULI
Milo Aguilar, ULI Chicago Intern
Marge Malo, ULI Chicago Intern
Dan Miodonski, ULI Chicago Intern
Jason Saavedra, ULI Chicago Intern
Jessica Simoncelli, ULI Chicago Intern

Production Staff

James A. Mulligan, Managing Editor
Laura Glassman, Publications Professionals, Manuscript Editor
Betsy VanBuskirk, Creative Director

Kelley J. Smith
ULI Chicago, Chair

ULI Chicago
1700 West Irving Park Road
Suite 208
Chicago, IL 60613
Phone: 773-549-4972
chicago.uli.org

Patrick L. Phillips
Chief Executive Officer

Maureen McAvey
Executive Vice President
Initiatives

Suzan Yungner
Senior Vice President
District Councils

Rachel MacCleery
Managing Director
Infrastructure Initiative

Urban Land Institute
1025 Thomas Jefferson St., N.W.
Suite 500 West
Washington, DC 20007
Phone: 202-624-7000
www.uli.org

About the ULI Chicago Infrastructure Initiative: ULI Chicago's Infrastructure Initiative is a multiyear effort led by ULI Chicago's Infrastructure Committee. Its goals are to

- Address the relationship between infrastructure and land use;
- Improve regional infrastructure decision-making; and
- Develop national models of best practices.

To date, projects include the development of the Infrastructure Game Changers analysis process, its application to the Lakeshore Industrial Heritage Corridor and Regional Infrastructure in Northeastern Illinois, and investigation of infrastructure finance.

About the ULI/Curtis Regional Infrastructure Project: Supported by ULI trustee James J. Curtis, the ULI/Curtis Regional Infrastructure Project is a three-year initiative launched with the goal of better linking infrastructure, land use, and sustainability at the regional level. The Curtis Project emphasizes developing leadership and models of best practices. Selected by a competitive process and led by ULI's Infrastructure Initiative, participants include the ULI District Councils in Chicago, Seattle, Florida, and Minnesota.

About ULI: The Urban Land Institute is a 501(c)(3) nonprofit research and education organization supported by its members. ULI provides leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. Founded in 1936, ULI has nearly 30,000 members in 95 countries worldwide, representing the entire spectrum of land use and real estate development disciplines working in private enterprise and public service.

For more information on the Regional Infrastructure in Northeastern Illinois project or other ULI Chicago infrastructure programs, please contact Cindy McSherry, ULI Chicago executive director (Cindy.Mcsherry@uli.org or 773-549-4972), or Christine Kolb, ULI Chicago director of community outreach (Christine.Kolb@uli.org or 773-549-2655).

ULI Chicago
Infrastructure Initiative

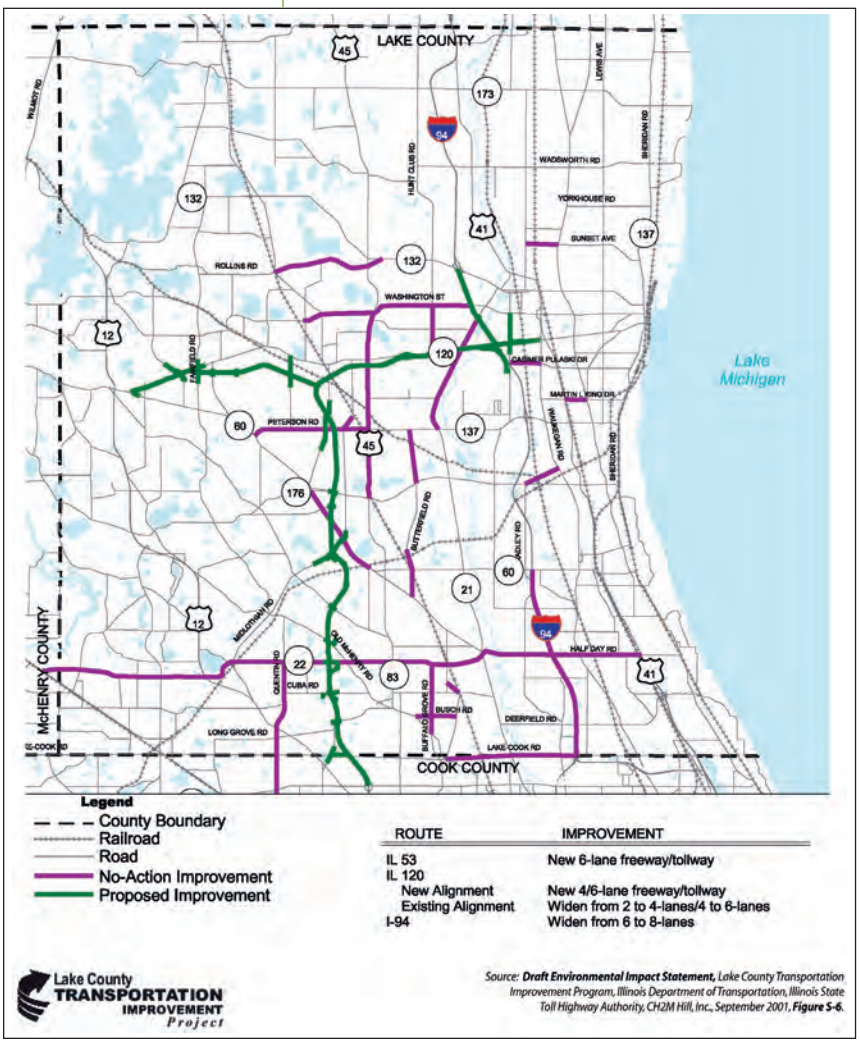
Central Lake Thruway

Regional Infrastructure in Northeastern Illinois

Infrastructure's Role in Maintaining Greater Chicago's Competitive Edge

Project Case Studies

- **The Central Lake Thruway includes two road projects: improvements to Illinois Route 120 (IL-120) and an extension of Illinois Route 53 (IL-53) north with its terminus at IL-120.**
- **IL-120 will bypass nine miles of the 14.5-mile-long corridor to create an environmentally conscious, four-lane modern boulevard. Limited access at major intersections encourages compact development.**
- **An environmentally sound extension of IL-53 will effectively integrate the system of roads and transit within Lake County and reduce congestion.**
- **Both projects could be financed in part through public/private partnerships, congestion pricing, or tolling.**



The proposed Central Lake Thruway (green) as well as no-action roadway improvements (purple).

Background

Lake County has been studying alternative strategies to confront gridlock and excessive commute times for its local residents for many years. For the central part of the county, plans are in place for two transportation projects that can be grouped together as the Central Lake Thruway. These projects include constructing a bypass of a lower-capacity portion of IL-120 with a matched, higher-capacity roadway as well as a northern extension of IL-53 to meet that bypass.

The thruway is expected to add up to 9,838 jobs and $513.7 million in total income by 2040 and to significantly reduce travel times throughout the region. Because of the anticipated improved conditions for automobile-based travel, the thruway is forecast to increase regional automobile trips and decrease regional transit trips. Nevertheless, analysis done by the Chicago Metropolitan Agency for Planning (CMAP) suggests that this project has the greatest potential to relieve congestion among proposed major transportation projects in the region.

These projects are part of a larger planned transportation improvement system for Lake County. A draft environmental impact statement (DEIS) was produced in 2001, which considered various alternatives, including extending IL-53 north and improving IL-120. Recognizing that the process to construct a new north-south roadway would likely take many years, a Route 120 Corridor Planning Council was formed to study the feasibility of proceeding more quickly with the improvements to IL-120. The feasibility study for these improvements has been completed, resulting in a preliminary preferred road type and alignment. The IL-53 extension project faces a potentially significant environmental hurdle because a number of wetlands lie in the vicinity of prospective right-of-way.

Land Use

Land use surrounding the potential alignment of the Central Lake Thruway includes a mixture of developed land and agricultural use as well as natural areas such as wetlands. Potential land use effects of the thruway were studied in the 2001 DEIS. In that study, past population and development trends were outlined and potential impacts on future population growth were quantified. At that time, the alternative that included

Evaluation

Economic competitiveness

- Compared with the no-build scenario, the combined thruway is forecast to add up to 9,838 jobs and $513.7 million in total income to the region by 2040.
- It is expected to add up to $755.2 million to gross regional product in 2040.
- It will reduce time lost to congestion by 152,922 hours system-wide in 2040, compared with the no-build alternative.

Opportunity

- The combined thruway will improve travel conditions and job accessibility for residents of central Lake County.

Environmental sustainability

- The combined thruway is expected to increase total regional auto trips by 14,428 and to decrease total transit trips by 13,630 in 2040, compared with the no-build scenario.
- Daily volatile organic compound emissions are expected to be reduced by 0.331 tons per day by 2040, possibly because of increased travel efficiency offered by increased capacity.
- Annual emissions of direct particulate matter and equivalent carbon dioxide are expected to increase by 2.66 and 90,192 tons, respectively, by 2040, most likely resulting from increased vehicle miles traveled.

Support

- The projects are included in the fiscally constrained major capital project list in CMAP's 2040 Regional Transportation Plan.
- Twelve local communities passed resolutions of support for IL-120 improvements.
- A Lake County referendum stating "Shall the State of Illinois construct the extension of Illinois Route 53 from Lake Cook Road northerly to the existing Illinois Route 120?" received a 75.72 percent favorable vote.

Funding and financial feasibility

- The capital cost estimate for the thruway is $2.2 billion.
- The IL-53 extension is being reviewed by the Illinois Tollway among numerous other potential projects.
- The Illinois Department of Transportation did not include funding for Phase I engineering for the IL-120 bypass in its five-year budget, as was previously expected.
- The Route 120 Corridor Planning Council may apply for federal funds in the fall of 2010.

the northern extension of IL-53 was forecast to increase the population of Lake County by 29,339, or 3.7 percent, over the no-action alternative, by 2020. In context, the no-action alternative itself was estimated to result in a Lake County population increase of 54 percent in 2020 over the 1990 population, or an increase from 516,418 to 796,942 persons.

Beyond the DEIS analysis, which was conducted almost a decade ago, discussion of potential land use effects of the project has been limited. An opportunity exists for an updated, comprehensive land use impact study of transportation improvement alternatives. Such a study can focus on the specific ways in which the thruway can be consistent with existing planned development patterns defined by CMAP, Lake County, and local communities.

Status and Recommendations

As part of a new initiative within the Illinois Tollway to reevaluate its priorities, the agency is considering adoption of the Central Lake Thruway along with numerous other projects within the northeastern Illinois region. However, the agency has not yet committed to taking on the project. In addition, serious environmental concerns exist, because approximately 90 acres of wetlands lie within the area proposed for use as right-of-way, much of which closely abuts existing residential areas.

Because of these sources of uncertainty, the timing and final alignment of implementation of the thruway is unknown. While the important issues are being ironed out, an opportunity exists to conduct an updated, comprehensive land use impact study of transportation improvement alternatives. Such a study should focus on the following:

- Specific ways in which the thruway can be consistent with existing planned development patterns;
- Consideration for modern, potentially cost-effective transit solutions such as bus rapid transit; and
- Recommendations for appropriate controls to ensure that development along interchanges maximizes economic growth and makes transit a competitive alternative, thus reducing vehicle miles traveled.

This description represents the best available information as of November 2010.

ULI Chicago
Infrastructure Initiative

CREATE

Regional Infrastructure in Northeastern Illinois

Infrastructure's Role in Maintaining Greater Chicago's Competitive Edge

Project Case Studies

- **The Chicago Region Environmental and Transportation Efficiency (CREATE) program is a package of 71 rail improvement projects to mitigate regional freight congestion.**
- **Improving efficiency, CREATE facilitates a more cohesive transportation network for passenger and freight rail, as well as road and highway users.**
- **CREATE maintains appropriate freight-related land use and enables the region to capitalize on the full economic benefits of freight facilities and systems.**

The four CREATE corridors.
Image courtesy of the city of Chicago.

Background

The CREATE program is a package of 71 projects aimed at reducing freight-rail congestion across four corridors in and around Chicago. It is a unique collaboration between public entities (Chicago Department of Transportation [CDOT], Illinois Department of Transportation [IDOT], U.S. Department of Transportation) and private and public railroads that focuses on improving the entire rail network.

Chicago is the preeminent freight hub of the United States. Approximately one-quarter of the nation's rail freight originates, passes through, or terminates in Chicago. This demand is growing, as freight-rail volume is expected to increase by 89 percent by 2035. Freight activity has created extreme congestion on Chicago's aging rail infrastructure; a train can take 48 hours to come from Los Angeles and require an additional 30 hours to cross Chicago. CREATE aims to alleviate points of congestion by separating freight tracks from passenger tracks and highways, expanding rail capacity, and updating signaling and switching systems.

A recent study predicted that without CREATE Chicago's rail-freight network would reach capacity by 2017, and by 2021 the region's economy will lose an estimated $1 billion in production. By 2040, that number will be closer to $7 billion. Because of Chicago's role in the national transportation network, CREATE is expected to produce $3.6 billion annually for the nation's economy.

CREATE will benefit the entire transportation network. Passenger rail, including Amtrak and Metra, will become more reliable because CREATE eliminates many passenger-freight rail conflicts. Similarly, CREATE projects that separate road from rail will save highway users an expected 3,000 hours a day at railroad crossings. These separations will also make crossings safer because they reduce the potential for accidents.

Eleven CREATE projects have been completed, seven are under construction, seven are in the final design phase, and 17 are undergoing environmental review. The remaining 29 projects have a funding gap totaling more than $2 billion.

Evaluation

Economic competitiveness

- Without CREATE, the region could leave behind $7 billion in economic production and 172,000 job-years by 2040.
- CREATE keeps the Chicago region competitive in freight rail; other cities, such as Kansas City, Missouri, are making substantial investments in their systems.
- Estimated benefits to the national economy are $3.6 billion and 28,000 job-years annually.
- CREATE is forecast to save Illinois industries $99 million annually on transportation costs; industries from the entire Midwest will see $360 million in annual savings.

Opportunity

- CREATE provides passenger-rail separations, crucial for enabling high-speed rail to and from Chicago.
- It reduces freight congestion, thereby making the area more attractive for freight and logistics operations.
- CREATE's 25 grade-separation projects will enhance safety and reduce delays for motorists, transit users, pedestrians, and bicyclists.
- The project is expected to create 2,700 full-time job equivalents during the construction period.

Environmental sustainability

- The project is expected to reduce locomotive emissions, including annual reductions of 1,453 tons of nitrogen oxide and 225 tons of carbon monoxide.
- Decrease of emissions caused by highway vehicle delay is anticipated, including annual reductions of 213 tons of carbon monoxide.
- Annual railroad diesel-fuel savings are expected to be between seven million and 18 million gallons.
- CREATE could make rail a more competitive mode of transportation, and rail is four times more energy efficient than other over-the-road alternatives.
- CREATE allows for more frequent and reliable passenger-rail service.

Support

- Broad local and national support exists.
- CREATE was labeled a "Project of Regional and National Significance" in the last federal transportation bill.
- Components of CREATE are listed in the Chicago Metropolitan Agency for Planning's *GO TO 2040* fiscally constrained capital project list.

Funding and financial feasibility

- Total program cost is $3.05 billion.
- The unfunded portion is $2.44 billion, but CREATE has received support from a variety of sources: federal government, Illinois capital bill, CDOT, and railroad partners.
- Because of the nature of CREATE, officials have flexibility to secure funding for individual projects instead of an all-or-nothing approach.

Land Use

The CREATE program is aimed primarily at making freight and passenger rail in and around Chicago more efficient. However, it was not planned without land use considerations.

In 2003, a pre-CREATE study commissioned by the city of Chicago addressed whether moving rail-freight activity out of the city would be economically beneficial for the city, or whether it should reinvest in existing freight facilities and land uses. The study found that reinvesting in city freight facilities would boost gross regional product by $1 billion by 2020. Thus, maintaining land uses for freight activities was determined to be highly beneficial for the region and its gross regional product.

CREATE is also closely related to high-speed rail in the region. Many of the CREATE passenger- and freight-rail separations are along high-speed-rail corridors, which will enable passenger trains to travel without being slowed or stopped by freight-train crossings. High-speed rail has the potential to enhance development opportunities for areas around stations, and CREATE is crucial in making high-speed rail a reality.

Status and Recommendations

CREATE has received or been committed approximately $1 billion of its $3.05 billion price tag to date, from sources including the railroads, IDOT, CDOT, and the federal government. To ensure that the project continues to be implemented successfully, the following steps should be taken:

- Prioritize remaining projects, with special consideration given to grade separation projects that ease passenger-rail conflicts and auto congestion.
- Develop an achievable financial plan based on such prioritization.
- Lobby for funding to update the Illinois Commerce Commission's 2002 study *Motorist Delay at Public Highway–Rail Grade Crossings in Northeastern Illinois*, which could quantify current costs of and time spent at grade delays, as well as stress the importance of eliminating grade crossings.

This description represents the best available information as of November 2010.

Urban Land Institute

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Lake County Water

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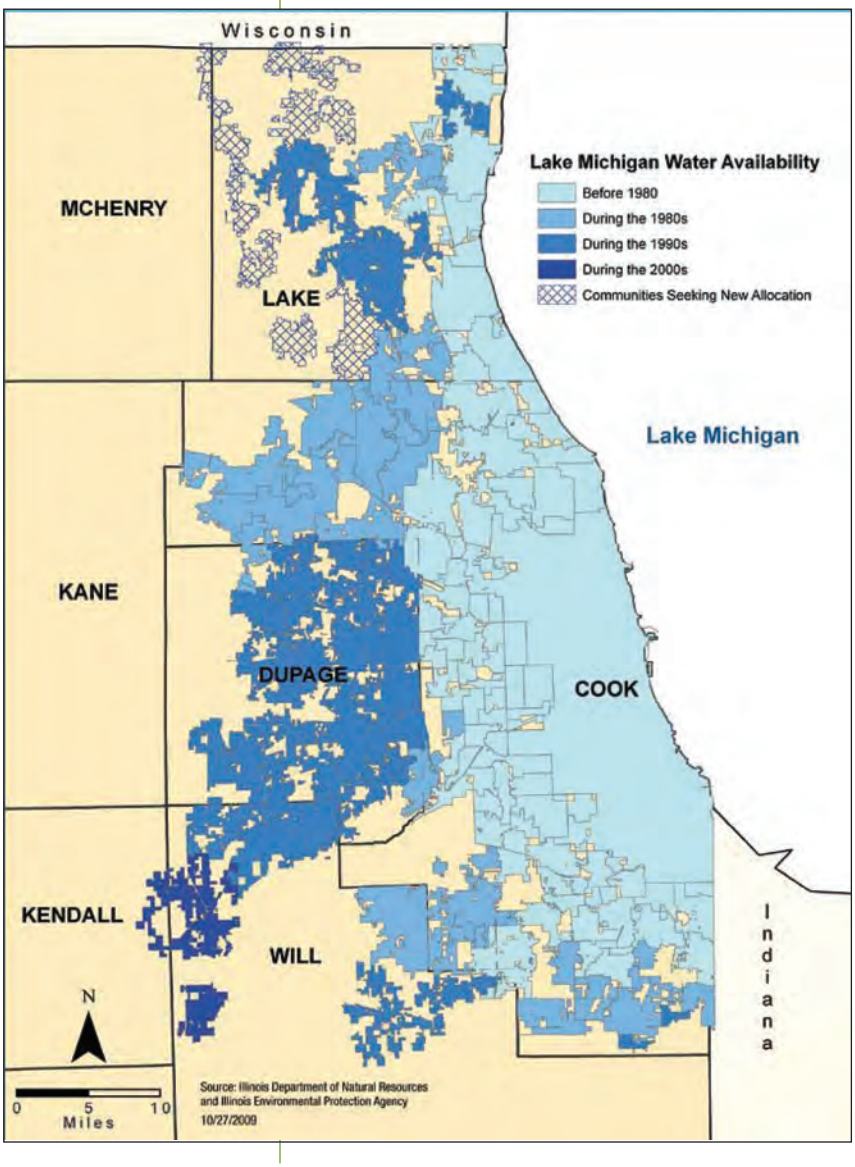
Project Case Studies

- **The project proposes 57 miles of new water pipes to facilitate the allocation of Lake Michigan water to 12 Lake County communities.**
- **It transfers the Lake County communities' water source from unsustainable reliance on groundwater aquifers to approved allotment of Lake Michigan water.**
- **It enables access to the water system to encourage efficient development and land use patterns.**
- **It more accurately accommodates Lake County's projected population growth.**



Background

Twelve communities in Lake County, Illinois, are seeking access to Lake Michigan as their water source. Currently, the applicant communities use groundwater, from both shallow and deep aquifers, as their source of water. By 2040, these communities are expected to more than double in population and likewise in water consumption. How much groundwater is available or whether it is enough to support the projected increase in population and demand is not currently known.

Evidence suggests that Lake County's deep bedrock aquifers, which supply a majority of the groundwater, are being "mined," which means water is being withdrawn faster than the replenishment rate. Although shallow aquifers have the potential to yield more water, they are highly susceptible to drought. Also, because shallow aquifers are recharged by local rainfall and snowmelt, their supply will be affected by future development as infiltration of surface water is hindered by increased impervious surface area. Moreover, water from both deep and shallow aquifers is generally of lower quality than Lake Michigan water.

The communities are currently in the application process and awaiting approval from the Illinois Department of Natural Resources. Because Lake Michigan is critical to the entire region, the amount of water Illinois can withdraw is strictly limited; the Chicago Metropolitan Agency for Planning (CMAP) estimated Illinois is 50 million to 75 million gallons per day under that limit. By 2040, the applicant communities are estimated to consume nearly 12 million gallons per day, falling well within Illinois's allotment.

Land Use

Lake County is largely a mix of suburban and rural land uses, and the applicant communities are no exception to this pattern. As mentioned previously, the population of the applicant cities is expected to double by 2040, which will almost inevitably lead to more land being used for residential and commercial purposes.

Although land use planning has traditionally been disconnected from water supply, a strong relationship exists between the two. CMAP recently issued a water plan for northeastern Illinois that outlines the ways land and water use are interrelated. For example, a study in Utah found that

The Chicago metropolitan area's usage of Lake Michigan water.
Image courtesy of the Chicago Metropolitan Agency for Planning.

Evaluation

Economic competitiveness

- The proposal will allow deep bedrock aquifers to recharge, which are replenished in neighboring counties.

Opportunity

- It has the potential to increase property values of current homes that will receive higher-quality Lake Michigan water.
- The proposal will eliminate constraints on growth and development by ensuring an adequate supply of good-quality water for the growing population.
- It uses a portion of the facilities and land of the Lake County Public Water District in Zion for the water treatment plant, routing of water mains, reservoirs, and pump stations.

Environmental sustainability

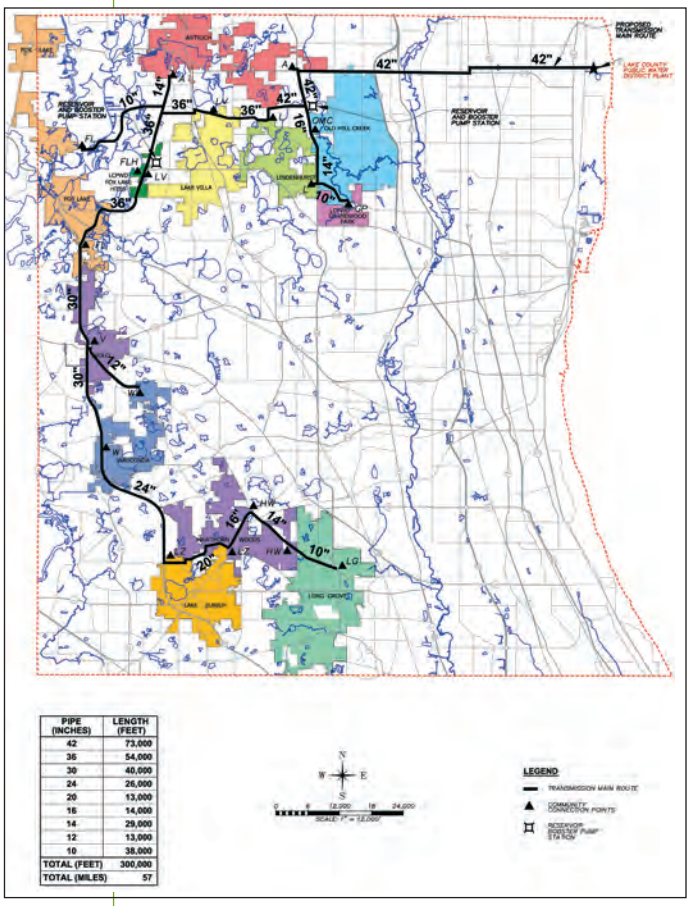
- Expected usage falls well within legal limits of Illinois's access to Lake Michigan water.
- The proposal effectively incorporates water distribution and allocation into land use planning.
- The proposal has some opposition from conservationists.

Support

- A letter of support from each community is required to be included in the application.
- CMAP supports moving communities from groundwater to Lake Michigan water when feasible.

Funding and financial feasibility

- The estimated $252 million construction cost will be financed through a combination of revenue from water rates, future connection fees, special service areas, and bond issues.
- Cost per household is estimated at $421 per year.



Proposed Lake Michigan water-transmission route through Lake County. The county borders the lake on the east side.
Courtesy of Northwest Lake County Lake Michigan Water Planning Group.

water demand at a development of five units per acre is 110 gallons per capita per day (gpcd) whereas water demand at a development of two units per acre is 220 gpcd.

CMAP concludes that water consumption is optimized if the following land use principles are in place: "growth within and contiguous to existing communities are maximized, rather than solely or dominantly on the urban/rural fringe; community-appropriate densities are optimized to insure infrastructure effectiveness; diverse transportation options are made available to encourage compact development; conservation design practices in existing and new developments are promoted as the best applicable tools for storm water management; [and] open lands are preserved for land application of wastewater effluent." As Lake County moves forward with its application for Lake Michigan water, making water supply part of the land use planning process is important.

Status and Recommendations

Lake County is awaiting approval from the Illinois Department of Natural Resources. If approved, an agency will be formed to oversee the financing and construction of the water-pumping and delivery systems. A referendum will likely be necessary to approve the bonds that will be issued for initial construction; bonds based on user fees will be issued shortly thereafter.

ULI supports incorporating water supply into land use planning as Lake County continues to grow in the coming decades. CMAP has recently described certain development principles in its *Water 2050: Northeastern Illinois Water Supply/Demand Plan* (which in turn were from the *Conservation Design Resource Manual*) that could aid Lake County in effectively managing water supply. In addition, ULI supports the following measures:

- Review existing community planning standards to ensure they are appropriate for areas with water systems.
- Develop flexible lot design standards, which can minimize storm runoff and reduce water infrastructure costs.
- Implement sustainable stormwater management techniques, which can also aid in recharging aquifers.
- Consider implementing CMAP's *Model Water Use Conservation Ordinance* for the applicant communities.

This description represents the best available information as of November 2010.

Urban Land Institute

ULI Chicago
Infrastructure Initiative

Metra SouthEast Service

Regional Infrastructure in Northeastern Illinois

Infrastructure's Role in Maintaining Greater Chicago's Competitive Edge

Project Case Studies

- **This proposal includes 33 miles of new Metra track to connect 20 communities on the Southside and southern suburbs to downtown Chicago.**
- **It improves transportation options to southern communities and connects the workforce with the central business district.**
- **It leverages existing infrastructure and capitalizes on existing land use.**
- **It provides multiple opportunities for transit-oriented development along the proposed route.**

The proposed SES line will span 33 miles from downtown Chicago to its south suburbs.
Courtesy of the Commuter Rail Division of the Regional Transportation Authority ("Metra").

Background

The proposed Metra SouthEast Service (SES) project is a new commuter-rail line that would terminate at the LaSalle Street station in downtown Chicago and span southward approximately 33 miles through Chicago and several south suburban communities before ending at the Balmoral Park raceway in Will County.

The new line would link 20 communities in the south suburbs of Chicago with the downtown area and improve transportation choices for residents. It would take drivers off of the road, reducing congestion, vehicle miles traveled, emissions, and road maintenance costs. Major capital elements of the project include double-tracking short portions of the line, constructing new bridges over the Calumet and Little Calumet rivers and a flyover at Dolton Junction, upgrading existing freight tracks to support commuter service, and constructing an overnight storage yard at the Balmoral Park terminus.

The project has strong support from local communities and representatives. However, its implementation is challenged by the fact that it is not included in the list of fiscally constrained projects in the Chicago Metropolitan Agency for Planning (CMAP) *GO TO 2040* plan, the official long-term regional transportation plan for the seven-county northeastern Illinois region. According to CMAP, the project will remain on the unconstrained list until a locally preferred alternative (LPA) is accepted by the Federal Transit Administration (FTA) and the project "demonstrates financial feasibility."

Land Use

The SES line would primarily use existing infrastructure, minimizing the need for converting land for use as rail right-of-way. Local communities will be in charge of the station and surrounding related land uses.

In preparation for the SES line, many of the communities with potential stations have taken the initiative to conduct land use studies. One example is the community of Chicago Heights, which completed a study in 2009 that focused on leveraging the SES line to support investment in the community and consider transit-oriented development opportunities. The study recognizes the SES line as having catalytic development potential and offers a land use framework, a development market analysis, and other important land use considerations such as stormwater management and area traffic circulation. Other communities such as Crete and South Chicago Heights have conducted similar studies.

Evaluation

Economic competitiveness

- The proposal would increase access to jobs, both for local residents who work in the Greater Chicago region and for those within the region who work in existing and potential future employment centers near stations.

Opportunity

- It is projected to generate 550 to 640 jobs with more than $262 million in wages paid out over the project's ten-year engineering and construction period.
- It is expected to spare the state from more than $4 million in annual highway construction and maintenance costs by taking drivers off the road.
- The proposal would link almost 20 communities in the south suburbs, where population growth is currently outpacing employment opportunities.
- It can encourage continued interjurisdictional cooperation and public/private coalitions, leading to better long-term development and travel conditions and eventually higher quality of life.

Environmental sustainability

- The project is expected to increase total regional transit trips by 7,923 in 2040 compared to a no-build scenario.
- If the SES line encourages travelers to switch from autos to transit, vehicle miles traveled and emissions will be reduced.

Support

- The CMAP 2030 Regional Transportation Plan (RTP) endorsed the proposal as a "project recommendation."
- It was included in the draft CMAP *GO TO 2040* RTP fiscally unconstrained major capital project list but not the constrained list.
- All 12 municipalities that the line would pass through are highly supportive of the project, as are the vast majority of the adjoining municipalities.

Funding and financial feasibility

- The project uses existing transportation and utility infrastructure for greater cost-efficiency.
- The estimated capital cost is $778 million (2010 dollars).
- The estimated annual operating cost is $28 million (2010 dollars).
- Funding through FTA's New Starts program is currently being pursued.
- A New Starts grant would provide up to 60 percent of funding; a source for the required 40 percent local match is uncertain.
- Local municipalities will pay for station area construction costs, including the station house, parking, access infrastructure, operation and maintenance.

In addition, the South Suburban Mayors and Managers Association and the Village of South Holland took the lead in conducting a more comprehensive study of land use and financing relating to the SES line. The result was a report that provides guidance on what local communities can do to encourage more transit-supportive development outcomes. Among the recommendations are to "increase density and mixing of land uses around stations" and "support for major activity centers," with recommendations for individual communities.

Status and Recommendations

Metra is currently pursuing a New Starts grant to fund the project and has selected commuter rail as the LPA. As a next step, Metra will hear public comments on the selected LPA before it is submitted it to the FTA. Approval of the LPA will be an additional step toward potentially having the project moved from the fiscally unconstrained list of major capital projects to the constrained list. This change would accelerate the New Starts grant application process. In addition to the funding provided by a New Starts grant, a local match of at least 40 percent would be required, the source of which is uncertain.

This project offers potential for collaboration on various levels. Opportunities for partnerships should be explored, such as potential cost sharing with the Balmoral Park raceway and Amtrak, as well as collaboration opportunities with the Chicago Region Environmental and Transportation Efficiency (CREATE) rail improvement program.

This description represents the best available information as of November 2010.

ULI Chicago
Infrastructure Initiative

South Suburban Airport

Regional Infrastructure in Northeastern Illinois

Infrastructure's Role in Maintaining Greater Chicago's Competitive Edge

Project Case Studies

- **This project capitalizes on 2,444 acres of existing land acquisition toward development of the long-planned South Suburban Airport (SSA).**
- **The airport's character and use should complement the existing and projected regional airport system.**
- **An airport in the southern suburbs could serve as a node to intermodal transportation projects and surrounding land use plans.**

Background

Plans for the proposed SSA include an inaugural 4,200-acre airfield configuration that will serve local low-cost passenger, air cargo, and general/corporate aviation markets. A full buildout configuration of up to 24,000 acres is also being considered. Commercial enplanement forecasts for 2021 range from 2.2 million to 6.7 million, with the SSA generating 11.9 percent of total regional air trips.

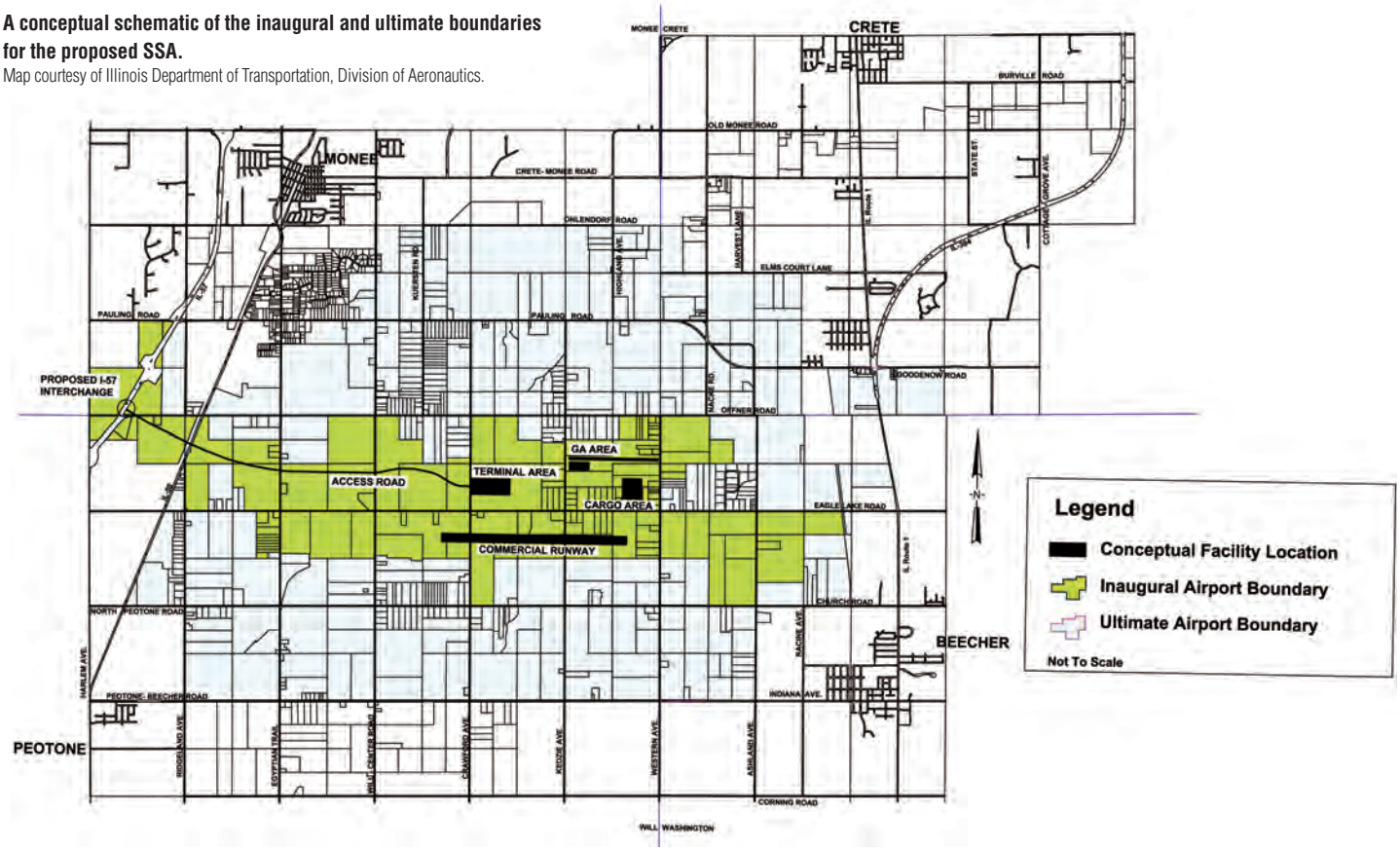
Construction and operation of the airport are estimated to create in the range of 27,000 to 78,000 jobs by 2030. The airfield would be located near a number of intermodal facilities as well as existing and planned transportation infrastructure. The proposed Illiana Expressway, another project under study through the ULI/Curtis Infrastructure Initiative, could support the SSA by facilitating passenger and freight transportation to, from, and around the airport.

As part of the Airport Master Plan, tier 2 of a two-tier environmental impact study (EIS) is currently underway and will consider the potential environmental impact of inaugural SSA facility construction and operation. Funding and finance options will be studied through the Airport Master Plan process.

Land Use

Upon completion of the tier 1 EIS in 2002, the Illinois Department of Transportation (IDOT) received approval from the Federal Aviation Administration to begin land acquisition for future airport development. The IDOT Department of

A conceptual schematic of the inaugural and ultimate boundaries for the proposed SSA.
Map courtesy of Illinois Department of Transportation, Division of Aeronautics.



Evaluation

Economic competitiveness

- The SSA is expected to create 7,735 direct jobs, 16,908 indirect jobs, and 25,833 induced jobs for the region by 2030.
- An estimated $1.49 million in annual revenue to the states of Illinois and Indiana is anticipated by 2030 (2001 dollars).

Opportunity

- Proximity exists to Burlington Northern Santa Fe, Union Pacific, and Canadian National intermodal facilities.
- Emphasis on freight will complement existing local intermodal infrastructure.

Environmental sustainability

- The tier 1 EIS approved the location of the airport site and the acquisition of land by the state of Illinois.
- Environmental impacts of the construction and operation of the SSA will be assessed during the upcoming tier 2 EIS process.

Support

- Public comments in support of the SSA cite economic benefits—particularly job creation—and the inability of existing regional airport expansion programs to meet expected demand.
- Public comments in opposition to the SSA object to property acquisition and potential effects on rural land use, claim that expansion of existing airports would capture the expected demand, and express disbelief that passenger service at the airport will be sustainable.
- The Record of Decision for tier 1 EIS has been issued, allowing IDOT to begin land acquisition.

Funding and financial feasibility

- To date, $33.13 million has been spent on property acquisition.
- Cost estimates for inaugural airport construction and operation will be developed over the next several months in the Airport Master Plan.
- Funding and finance options will be evaluated through the Airport Master Plan process.

Aeronautics has begun this land-banking process, acquiring 2,444 acres to date. Future acquisitions will likely include condemnation and relocation of residents and businesses in the area.

In 2002, the Will County Land Use Department documented the types of development typical to large airports within its long-range land resource management plan and made the following recommendations for appropriate, sustainable land use:

- Protection of prime development locations around the airport from "low-quality, low-value uses such as parking lots, car rental facilities, and the like";
- Careful, regional-level planning of traffic access and circulation;
- Interjurisdictional land use planning and impact mitigation;
- Minimum standards for design and building materials to prevent mediocre development quality in the initial phases of off-airport development and to encourage high-value uses; and
- Coordination of on-airport and off-airport land use planning.

More recently, local leaders have formed the Eastern Will County Development District, which has the potential to assert a common vision for sustainable land use development in the area surrounding the proposed airport.

Status and Recommendations

The tier 1 EIS concluded in 2002, approving the selection of the site for the proposed airport as well as future land acquisition. A tier 2 study is currently underway as part of the Airport Master Plan and will consider the environmental impacts of construction and operation of inaugural SSA facilities. Other factors, including potential funding and finance options, are under study through the Airport Master Plan process, which is expected to be complete by the end of 2010. The ULI Chicago Infrastructure Committee has the following recommendations for the duration of this process:

- To address potential increased air transportation demand in future years, IDOT should continue land acquisition as an important step toward preserving the option of future airport development.
- Plans currently exist to extend the Metra Electric Line to the airport once it is built. The inaugural SSA design should facilitate easy access via rail and bus transit, and regional transit agencies should be included in the planning process.
- Potential regional land use impacts of the airport should continue to be thoroughly studied and updated to reflect higher levels of specificity in airport layout and design.
- Airport development studies in the Chicago region to date have focused on the market potential of a particular airport. These reports need to be supplemented with an all-inclusive study that addresses the broader question of air transportation demand and capacity in the northeast Illinois region. Such a study should consider the appropriate timing for development of the SSA and the ways in which existing and planned airports can best address future regional cargo and passenger air transportation needs.

This description represents the best available information as of November 2010.

ULI Chicago
Infrastructure Initiative

Elgin O'Hare West Bypass

Regional Infrastructure in Northeastern Illinois

Infrastructure's Role in Maintaining Greater Chicago's Competitive Edge

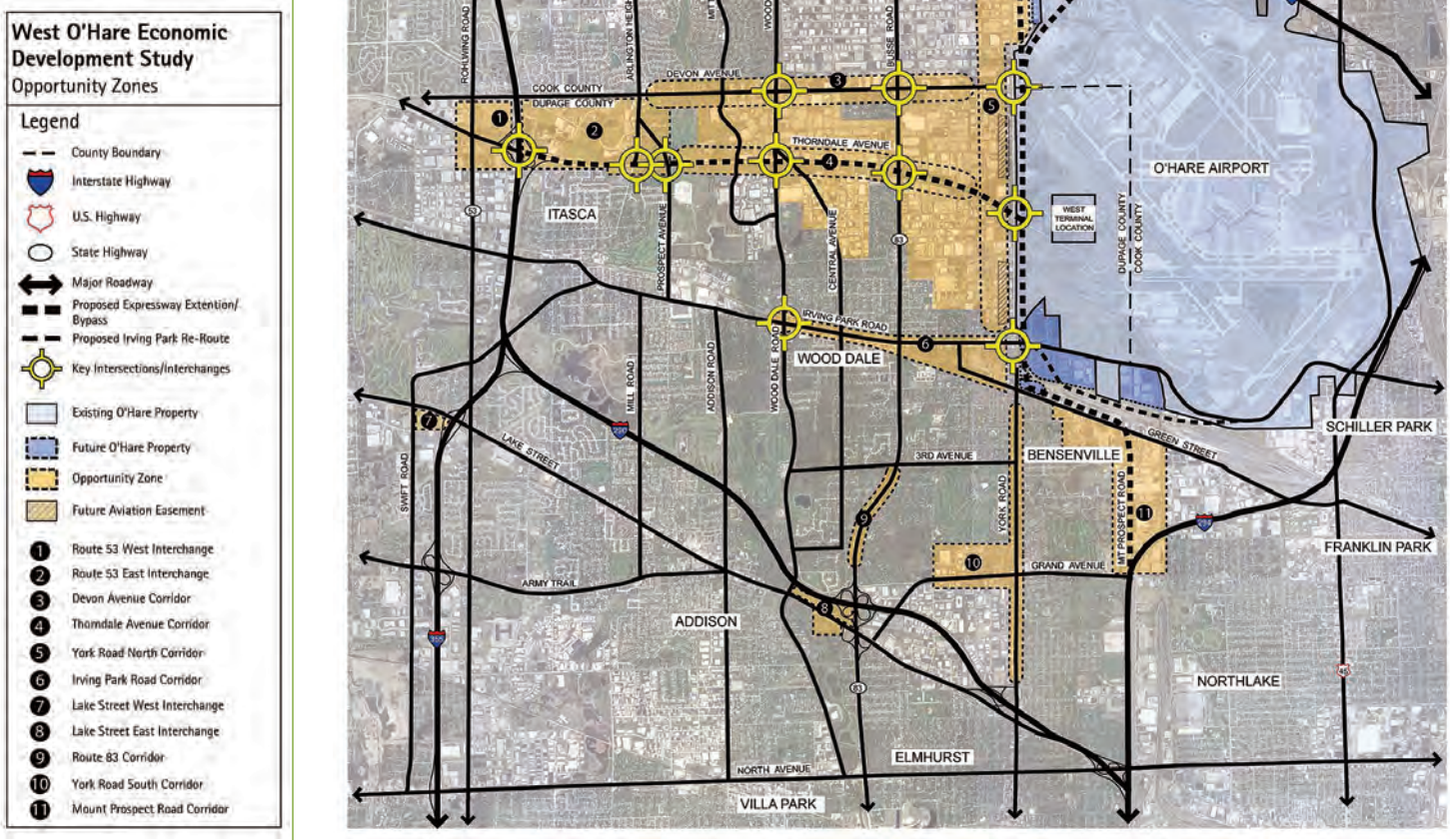
Project Case Studies

- **The West Bypass complements the vision of the O'Hare Modernization Project (OMP) to build a new western terminal.**
- **It provides surrounding communities and industry direct access into O'Hare, improving travel time by 49 percent and increasing transit options.**
- **The bypass targets new "zones of opportunity" within surrounding communities, offering the potential to rezone and incentivize new development appropriately.**

Background

Labeled a "Project of Regional and National Significance" by the latest federal transportation authorization bill, the Elgin O'Hare West Bypass is a project designed to alleviate congestion around and to O'Hare International Airport. The project will extend the Elgin O'Hare Expressway east to connect with O'Hare and give western suburban residents direct access to the airport. A highway connecting Interstate 90 to Interstate 294 on O'Hare's west side will both alleviate congestion on a major bottleneck and further improve access to the airport. The preferred alternative chosen in the most recent plan calls for transit to play an important part in the project. Light rail, a Chicago "L" extension, bus rapid transit, and local circulators are all under consideration.

The Elgin O'Hare West Bypass is expected to increase the competitive advantage of the area, and studies predict it would lead to an increase of 62,500 jobs by 2030. Moreover,



The Elgin O'Hare West Bypass study area. The dashed lines represent potential future roadways, while the shaded areas indicate an opportunity zone. The yellow targets signify major interchanges or intersections.
Map courtesy of DuPage County, Illinois, Department of Economic Development and Planning.

Evaluation

Economic competitiveness

- The bypass project is forecast to add 62,500 long-term jobs to the region by 2030.
- It is estimated to improve travel time from the western study area to O'Hare by 49 percent, which is crucial to businesses and residents alike.
- Construction will add $5 billion to the regional economy.

Opportunity

- Sixteen new transit corridors will improve mobility and connectivity of the area.
- Improved accessibility and transit make the 11 surrounding zones of opportunity ripe for mixed-use development.
- Current and future industrial properties will benefit from shorter trip times to and around O'Hare.

Environmental sustainability

- The bypass is expected to improve area roadway efficiency by 10 percent.
- The preferred alternative will increase transit trips by 37 percent.
- Although the area is already highly urbanized, this project will affect approximately 40 acres of wetland.

Support

- Strong support exists among suburban mayors and elected officials.
- Surrounding local governments have passed 19 formal resolutions in favor of the project.
- In October 2010, the Illinois governor created an advisory council to aid in the planning and construction of the project.
- The federal government included a $140 million grant in the last transportation bill and labeled the project a "Project of Regional and National Significance."
- The project is listed in the Chicago Metropolitan Agency for Planning's GO TO 2040 fiscally constrained capital projects.

Funding and financial feasibility

- Capital costs are $3.6 billion.
- The yearly maintenance cost for roadways (not including transit) is $625,000.
- Tier 2 analysis will outline funding sources further; partnering with the Illinois Tollway or forming a private/public partnership is being considered.

the project is expected to increase transit trips by 37 percent and to increase efficiency on area roadways by 10 percent.

The Illinois Department of Transportation (IDOT) has completed a tier 1 environmental impact analysis of the project and received a record of decision in 2010, which stated the preferred alternative should be carried forward for further evaluation. Currently, the tier 2 environmental review process is underway.

Land Use

The Elgin O'Hare West Bypass project has the potential to substantially affect the land use of the area. Although the project itself is primarily a transportation project, changes in land use have been an integral part of the planning process. A 2006 economic development study outlined 11 zones of opportunity that will arise with implementation of the project, as shown in the map.

Currently, the land use in this study area is largely industrial. Although industry will remain an important part of the region, especially with the improved access to O'Hare, this project has the potential to open the opportunity zones to mixed-use development. Retail, hotel, office, commercial, residential, and open spaces are envisioned as thoroughly incorporated into the land use mix. For example, one zone of opportunity, the Thorndale Avenue Corridor, envisions 2,420 hotel rooms, 415 residential units, and new office and retail buildings along a pedestrian-friendly "Main Street" near a proposed transit station.

An important element of this project's success is the OMP. The OMP calls for the construction of a new western terminal. This terminal will not only be the access point for the roadway extensions, but it will also become central to the plan's 16 proposed transit corridors.

Status and Recommendations

The Elgin O'Hare West Bypass is currently undergoing its tier 2 analysis, conducted by IDOT. The tier 2 analysis will outline details of construction more thoroughly, including financing strategies, transit alignments, and stormwater management. IDOT expects this analysis to be completed in the summer of 2011. In addition, other implementation steps should be considered, including the following

- Continue collaboration with regional transit agencies to finalize transit alignments.
- Update land use analyses to ensure plans are consistent with region's needs, market demands, and sustainability goals.
- Conduct an outreach phase to attract project support.

This description represents the best available information as of November 2010.

ULI Chicago
Infrastructure Initiative

High-Speed-Rail Stations

Regional Infrastructure in Northeastern Illinois

Infrastructure's Role in Maintaining Greater Chicago's Competitive Edge

Project Case Studies

- **Two local stations are proposed that are critical to the region's role as the hub of the planned Midwest high-speed-rail (HSR) network.**
- **The Regional Joliet HSR Transportation Center and West Loop Transportation Center connects HSR with Metra and Amtrak commuter lines as well as local transit lines and regional transportation systems to integrate intermodal transportation and land use.**
- **The HSR network complements Chicago Region Environmental and Transportation Efficiency (CREATE) projects and regional transportation priorities.**

Background

The American Recovery and Reinvestment Act (ARRA) of 2009 included $8 billion of funding for the creation of a high-speed passenger-rail network. Chicago will become the hub of the planned network of high-speed trains in the Midwest.

The two planned HSR stations in metropolitan Chicago.

A recent study predicted that, as a hub, Chicago would gain $6.1 billion in new business and 42,000 jobs by 2035.

The Chicago–St. Louis corridor received a $1.1 billion grant from ARRA to begin implementing 110 mile per hour train service. This will cut travel time to four hours between the two cities, which is 40 percent faster than current service and 10 percent faster than driving. Part of this increase in speed includes eliminating conflicts with freight trains on HSR corridors, part of the CREATE program.

Currently, the Chicago–St. Louis corridor is the furthest along in both planning and funding in the midwestern network. This project summary examines the two proposed stations on this corridor in the Chicago area: the West Loop Transportation Center and the Joliet Regional Multimodal Transportation Center. These stations have the potential to profoundly affect the use of land in their respective downtown cores. Although the $1.1 billion grant is solely directed at train service, stations are a critical component to the successful implementation of HSR.

The West Loop Transportation Center is a proposed four-level multimodal transportation center to be located underneath Clinton Avenue in downtown Chicago's West Loop. Local and regional transit will be integrated into the station. Currently, however, no construction funding for the station has been secured. Before the station can be fully funded, other possibilities for stations must be evaluated.

The Joliet Regional Multimodal Transportation Center is planned to be in the downtown of southwest suburban Joliet, and it will connect HSR to two Metra commuter-rail lines, local buses, shuttles, and bicycle routes. A recent announcement by Governor Pat Quinn suggests that funding will be available for this project from sources such as the Illinois Jobs Now! capital program, the city of Joliet, and the Burlington Northern Santa Fe (BNSF) Railway.

Land Use

The West Loop Transportation Center will be located in downtown Chicago, an already dense and thriving business district. Still, the city of Chicago is actively exploring development opportunities and has integrated the West Loop Transportation Center into the *Central Area Action Plan*. The plan calls for increased office developments in the West Loop, which would enhance the transportation center's value for commuters and business travelers.

Evaluation

Economic competitiveness

- The Chicago region will see $6.1 billion in new business and 42,000 jobs by 2035 as an HSR hub.
- Stations will improve connectivity to local and regional transit networks.

Opportunity

- Significant opportunities exist for development around stations.
- The project will increase Chicago's and Joliet's potential workforce and talent pool substantially.
- HSR stations will make Chicago and Joliet more attractive places in which to live and do business.

Environmental sustainability

- The proposal reduces automobile dependency; the Chicago–St. Louis corridor has expected annual HSR ridership of 1,409,000 by 2020.
- Both stations will be in walkable, transit-friendly districts.
- The city of Joliet will incorporate sustainable design elements in a multimodal station, including solar panels, a green roof, and bicycle facilities.
- The project leverages existing and future transit systems.

Support

- The Joliet station has broad political support.
- The Chicago Plan Commission approved the *Central Area Action Plan*, which included the West Loop station, in August 2009.
- The West Loop Transportation Center is listed in the Chicago Metropolitan Agency for Planning's *GO TO 2040* fiscally constrained capital project list.

Funding and financial feasibility

- The West Loop Transportation Center has a construction cost of $2 billion; suggested sources include applying for the Federal Transit Administration's New Starts program, creating a tax increment finance district, and issuing state bonds.
- The Joliet Regional Multimodal Center has a cost of $42 million; it will be funded with $32 million in Illinois Jobs Now! funds, $7.5 million from the city of Joliet, and $2.2 million from BNSF Railway.
- Joliet is studying Champaign's transportation center to evaluate potential commercial tenants for the station.

Proposed Joliet Regional Multimodal Transportation Center.
Image courtesy of the city of Joliet.

Likewise, the Joliet Regional Multimodal Center plays a key role in Joliet's own forthcoming Central Area Plan and Implementation Strategy. The plan, which labels the multimodal center a "catalyst project," calls for pedestrian and transit-oriented developments in the downtown region. The impetus for the plan came from a 2006 quality-of-life study that found "significant public-private and private opportunities to develop associated retail, residential, commercial, office, and structured parking components that would serve to connect the Civic District, Sports District and Downtown Core."

Both stations embody two important components: integration into existing local transportation networks and location in a pedestrian-friendly environment. As HSR becomes a reality in the United States, these elements will be crucial in ensuring a traveler can easily reach his or her final destination and in positively reshaping land use surrounding a station.

Status and Recommendations

The West Loop Transportation Center is still in the planning phase, and no funding sources have been secured for its $2 billion construction price tag. The Joliet Regional Multimodal Transportation Center, however, is much closer to becoming reality. Given the recent announcement of funding from the state of Illinois, BNSF Railway, and the city of Joliet, construction can begin as early as 2011.

Because Joliet and Chicago are on one of the inaugural HSR lines, they have an opportunity to set a national precedent for successful HSR station implementation. To do so, ULI recommends the following:

- Municipalities should follow through on plans to surround stations with mixed-use, pedestrian-friendly developments.
- Stations should have convenient connections to local and regional transit networks.

This description represents the best available information as of November 2010.

Urban Land Institute

ULI Chicago
Infrastructure Initiative

I-294/I-57 Interchange

Regional Infrastructure in Northeastern Illinois

Infrastructure's Role in Maintaining Greater Chicago's Competitive Edge

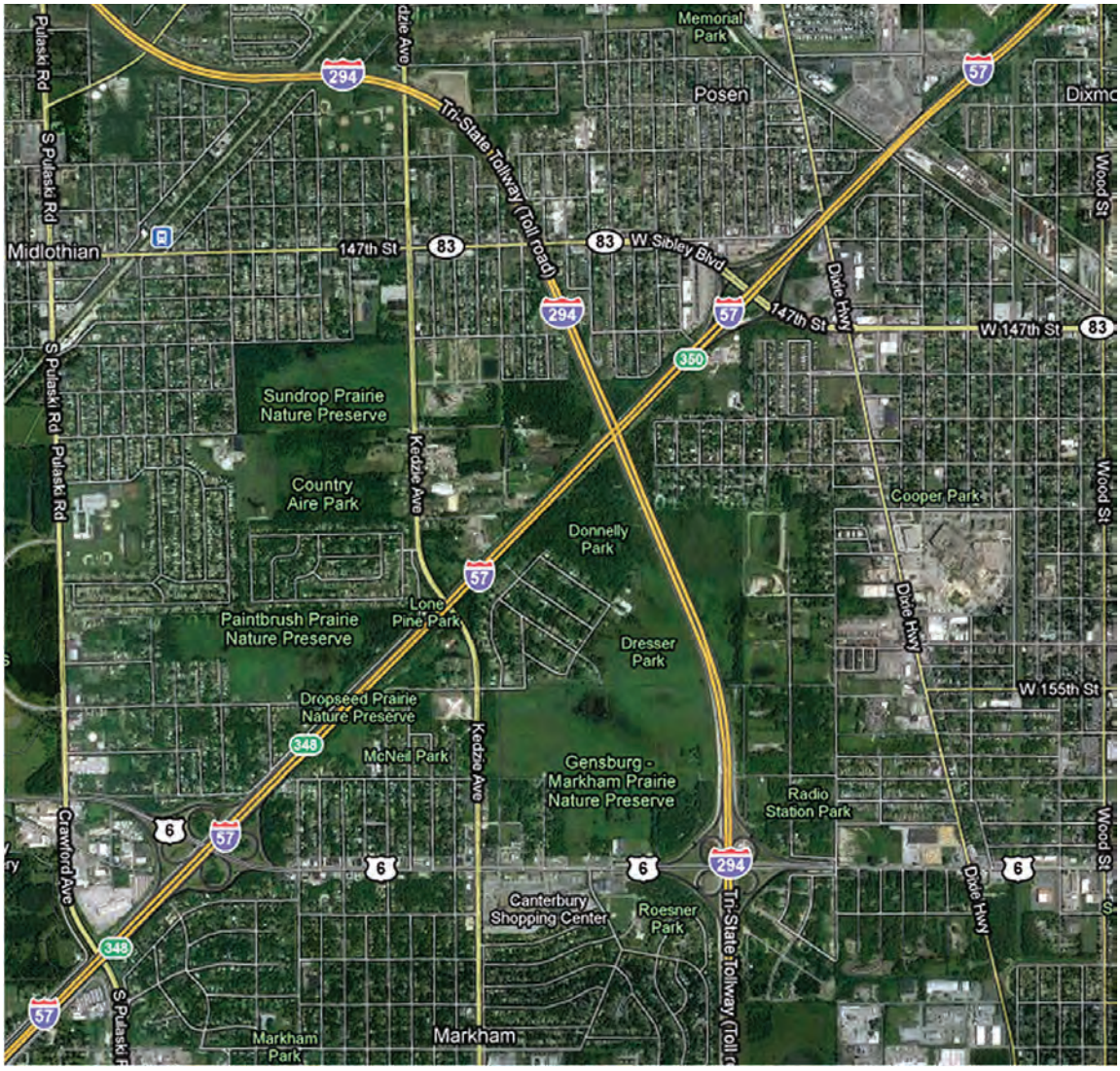
Project Case Studies

- **This project creates an interchange for two major highways.**
- **It decreases arterial road congestion, reduces local road repair costs, and increases local transportation safety.**
- **The project provides an opportunity to attract regionally focused periphery development.**
- **It encourages interjurisdictional cooperation around land use and development.**

Background

The intersection of Interstates 294 and 57 in the south suburbs of Chicago is one of only two places in the nation where interstate highways meet without an interchange. Traffic is forced to use alternate routes to connect between expressways, resulting in confusion and congestion.

The addition of an interchange at this location would create jobs, relieve congestion, improve safety and quality of life for the local population, and protect and enhance local wildlife habitat and wetlands. It would improve job accessibility for the workforce in DuPage County and the suburbs in southern Cook County by improving the connection to major employment centers. It would also support local economic and community development efforts by increasing the desirability



The intersection of I-294 and I-57, one of only two instances in the nation where interstate highways meet without an interchange.
Map courtesy of S.B. Friedman and Company.

Evaluation

Economic competitiveness

- The project is expected to create 2,000 permanent jobs throughout most of the Chicago region by 2030.
- It will increase efficiency and effectiveness of the interstate facilities.
- Increased efficiency may attract freight facilities, intermodal facilities, cargo-oriented developments, and airport developments to the region.

Opportunity

- Over the project's eight-year construction period, 4,049 direct and indirect jobs are forecast to be created as well as 1,842 induced jobs in areas with high unemployment rates.
- The project will improve job and education accessibility for the local economically distressed population.
- It prevents interstate traffic diversion to the local roadway network, reducing local road maintenance cost and creating safer conditions for bicyclists and pedestrians.

Environmental sustainability

- A 2008 environmental assessment resulted in a finding of no significant impact on the environment.
- The project will include the enhancement of wildlife habitat and approximately 28 acres of degraded wetlands.
- The project is expected to decrease carbon dioxide emissions by 2.1 tons daily.
- It is forecast to increase total regional auto trips by 3,509 and to decrease total transit trips by 3,712 in 2040, compared with the no-build scenario.

Support

- The project is listed in the Chicago Metropolitan Agency for Planning (CMAP) 2007–12 Transportation Improvement Program (TIP) and draft 2010–15 TIP.
- It is endorsed in CMAP's 2030 Regional Transportation Plan (RTP) and included in the fiscally constrained major capital project list in the draft 2040 RTP.
- National, state, and local elected officials have provided letters and resolutions of support.

Funding and financial feasibility

- Of a total estimated $510 million to $619 million capital cost, $127 million has been pledged from various sources.
- The Illinois Jobs Now! program has committed $28 million in capital funds to reconstruct the I-57 overpass over I-294.
- Annual expected incremental toll revenue of $8.22 million is expected along I-294 by 2030 at the current rate of $0.80 per toll.

of the area for industrial and intermodal uses as well as interchange-oriented retail and office uses.

A preferred alternative has been selected for the interchange and related improvements, and environmental approval has been secured with a finding of "no significant impact." With sufficient, immediate financial support, construction could be complete as early as 2012. However, a funding gap of $400 million to $500 million currently threatens the project's implementation.

Land Use

Currently, the majority of the land use in the area surrounding the proposed interchange is residential, although some commercial use is located near interchanges where arterials connect with I-294 and I-57. Approximately 32 acres of additional land would be required to construct the full interchange, potentially requiring the relocation of 42 residential buildings and two businesses.

Generally, areas surrounding the convergences of major interstates attract regionally focused developments such as major office developments, shopping, entertainment complexes, and public institutions. Given the improved interstate access, superior visibility, and existence of adjacent prairie lands, Kedzie Avenue corridor between 147th and 159th streets may offer the greatest redevelopment potential as a result of interchange construction.

The adjacent communities of Harvey, Markham, Midlothian, and Robbins have completed land use and transit-oriented development studies surrounding existing commuter rail stations. These studies generally recognize the redevelopment potential of the proposed interchange and suggest that it will increase the value of housing near station areas. The studies also note that the project is surrounded by a number of existing and potential sites for cargo-oriented development and that the project will cause the value of these sites to increase.

Status and Recommendations

The project has passed Phase I engineering and is currently entering Phase II design. In anticipation of construction of the full interchange, some land acquisition and related roadway and bridge improvements are already underway.

The Illinois Tollway submitted an unsuccessful Transportation Investment Generating Economic Recovery I grant application in 2009 in hopes of securing funding. With sufficient financial support, construction could be complete as early as 2012. However, a funding gap of $400 million to $500 million currently threatens the implementation of this project.

This description represents the best available information as of November 2010.

ULI Chicago
Infrastructure Initiative

Illiana Expressway

Regional Infrastructure in Northeastern Illinois

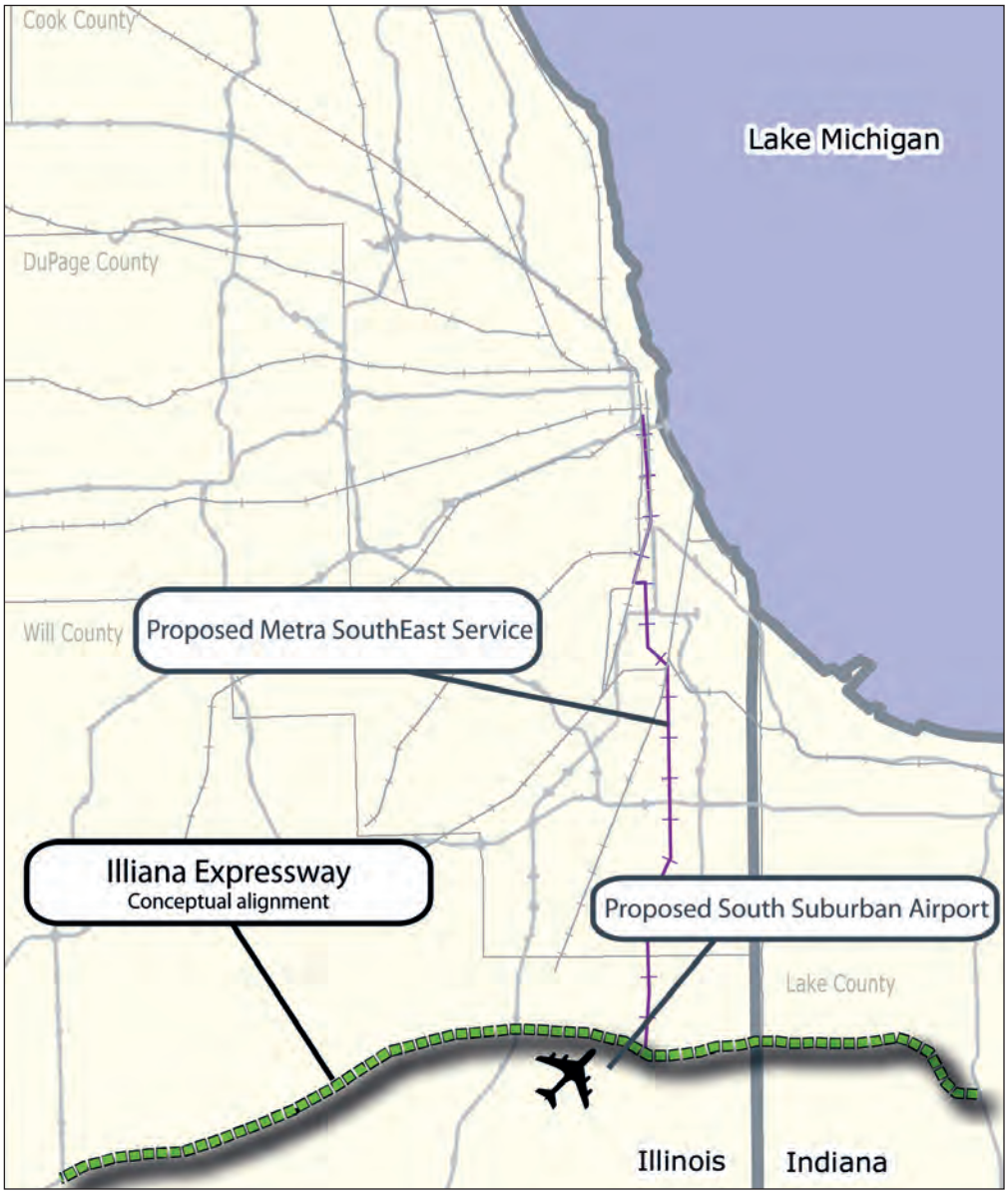
Infrastructure's Role in Maintaining Greater Chicago's Competitive Edge

Project Case Studies

- **This project proposes a new expressway to connect communities and industry on either side of the Illinois and Indiana border.**
- **It promotes bistate cooperation and complementary land use strategy.**
- **It provides an opportunity for a bistate public/private partnership model to build and operate the road.**
- **Cargo-oriented development (COD) and land use strategy will effectively increase mobility and support freight capacity.**

Background

The proposed Illiana Expressway provides an opportunity to increase transportation capacity for Will County, Illinois; the southern suburbs of Chicago; and Northwest Indiana. Within these areas, a tradition of industrial land use and a strong network of intermodal freight facilities exist. Private companies have seen the promise of this area and have invested heavily in creating and expanding their logistics parks, thereby providing jobs and economic development. However, congestion along existing transportation facilities is a barrier to further industrial development. The proposed expressway would integrate with existing and planned infrastructure to



Conceptual alignment of the Illiana Expressway.

Evaluation

Economic competitiveness

- The expressway is projected to add up to 4,300 short-term jobs and 13,800 long-term jobs in northeastern Illinois within 30 years following its construction.
- Compared with a no-build scenario, the expressway will add $199 million total income and $291.3 million to gross regional product by 2040.
- Increased regional transportation efficiency may attract freight facilities, intermodal facilities, CODs, and airport developments to the region.
- Between $195.80 and $277.00 is projected in monetized annual time savings for Chicago region users by 2030.

Opportunity

- Traffic will shift from more dangerous roadways onto a safer facility that meets modern interstate highway safety standards.
- Access to local freight transportation facilities will be enhanced, potentially attracting additional developments and jobs for local communities.
- The project would reduce annual crashes in the area by 1.1 to 1.2 percent and reduce fatalities by 1.3 to 1.5 percent.

Environmental sustainability

- The expressway is expected to increase total regional auto trips by 10,941 and decrease total transit trips by 8,531 in 2040 compared with a no-build scenario.
- Daily volatile organic compound emissions will be reduced by 0.077 tons per day by 2040.
- Annual emissions of direct particulate matter and nitrogen oxide will increase by 2.95 and 69.27 tons, respectively, by 2040.

Support

- The project is endorsed in the Chicago Metropolitan Agency for Planning 2030 Regional Transportation Plan (RTP) as a "corridor recommendation."
- It is included in the draft 2040 RTP fiscally unconstrained major capital project list but not the constrained list.
- Governors Quinn (Illinois) and Daniels (Indiana) signed a Memorandum of Understanding expressing a joint commitment to build the project.

Funding and financial feasibility

- The estimated capital cost for full corridor construction is $2.87 billion.
- Illinois and Indiana enacted legislation that enables each state to enter into a public/private partnership to develop, finance, construct, manage, or operate the Illiana.

alleviate congestion throughout the region and can be strategically placed near existing intermodal facilities as well as the proposed South Suburban Airport.

Construction of the Illiana Expressway is expected to create thousands of short- and long-term jobs, reduce congestion on existing roadways, and attract additional COD and intermodal facilities. However, the decrease in congestion will likely induce a mode shift of thousands of transit trips to automobile trips. In addition, although the project will reduce daily volatile organic compound emissions by 2040, annual emissions of particulate matter and nitrogen oxide are expected to increase.

The expressway has undergone feasibility studies in both Illinois and Indiana. The governors of the two states recently expressed their commitment to building the bistate roadway through a Memorandum of Understanding. In addition, Illinois and Indiana each recently enacted legislation that would enable the respective state departments of transportation to enter into a public/private partnership to develop, finance, construct, manage, or operate the facility.

Land Use

A significant amount of undeveloped, relatively inexpensive land exists in Will County as well as in parts of the south suburbs of Chicago and Northwest Indiana. Coupled with the area's tradition of industrial land use, this land creates a significant opportunity to strategically invest in infrastructure to support regional freight movement and promote COD. If the Illiana is designed with COD in mind, it could increase mobility in the area while also supporting additional freight transportation capacity to, from, and within the region.

One option that has been discussed for the Illiana is a designation as a freight-only tollway. Such an option has the potential not only to relieve congestion for both freight and passenger traffic, but also to reduce the likelihood of unplanned, inefficient development along the Illiana corridor and to decrease expected mode shifts from transit to autos.

Status and Recommendations

The Illiana has undergone feasibility studies in both Illinois and Indiana. Although alternative locations and alignments have been narrowed down, a preferred alternative has yet to be identified. In any case, a thorough understanding of the potential land use, environmental, and economic impacts of the project is recommended. If a freight-only alternative is pursued, analysis should be conducted, and appropriate controls should be in place to ensure that future industrial development promotes the most efficient use of land possible, maximizes transportation efficiency, and respects the environment.

This description represents the best available information as of November 2010.