



# Chicago Metropolitan Agency for Planning

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## MEMORANDUM

**To:** CMAP Board

**Date:** March 3, 2010

**From:** Tom Murtha

**Re:** *GO TO 2040* Policy Briefing: Freight

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Since fall 2009, CMAP staff has been briefing the Board on key policy areas that are recommended to be among the priorities of *GO TO 2040*. At the March meeting, one of the key policy issues discussed will be **freight**. Efficient freight movement is vital for the Chicago area's industrial economy, so freight flows need to be improved. However, when making freight improvements, community impacts should also be identified and addressed. It is expected that the *GO TO 2040* plan will include specific recommendations both for facilitating freight movements within metropolitan Chicago and for reducing the impacts freight has on our communities.

### *Importance of Freight*

As the mover of people and goods, metropolitan Chicago's multi-modal transportation system serves as our link to the global economy. Our region is the rail freight hub of North America, ranking among the top five intermodal ports in the world. Trucks make up nearly one of every six vehicles on Illinois' urban interstates. At the same time, congestion in the Chicago area is among the worst in the U.S. Furthermore, our rail and road networks are not equipped to handle an anticipated 100-percent increase in freight traffic by the year 2030. Without a well conceived and implemented plan, the region's position in the global economy could be compromised.

### *Summary of Regional Freight Issues*

The region's freight system serves as a hub for the Midwest and the U.S. Six of the nation's seven Class I railroads have major terminals in Chicago. In 2007, regional rail tonnage was estimated at more than 631 million tons (approximately 30 percent of the 2007 annual regional freight tonnage), with about 24,000 trailers and containers and about 16,800 carload units moving into, out of, or through the region daily. Rail terminal operations in Chicago are beset by congestion. However, railroads have recently worked together to mitigate congestion in the rail terminal district through improved operations coordination. In addition, the railroads have

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worked together to improve train travel through the Chicago terminal district through the Chicago Region Environmental and Transportation Efficiency (CREATE) Program. Technological change is also coming to the rail industry, facilitating cleaner operations and longer trains.

While the rail industry is a critical component of Chicago's freight system, much of the region's freight moves by truck. Compared to the 631 million tons moving by rail in the region, CMAP estimates that approximately 1.472 billion tons of freight was moved by truck in 2007 – more than 2.3 times the rail volume, and approximately 67 percent of the annual regional freight tonnage. Economy in trucking is challenged by severe congestion on interstate highways, arterial roads, and many collector streets. Congestion and unreliable travel times require buffering the time required to traverse the region to assure on-time arrivals, adding to costs.

Within the region, approximately 36% of all freight movements were through-traffic. These through trips, while contributing to the region's congested transportation network, do not bring economic benefits to the region.

Efficient truck deliveries are impacted not only by congestion, but by other challenges as well. Because of deferred maintenance, many bridges in the region have load restrictions. Some older bridges and viaducts were designed with low clearances. Also, many arterial roads, even parts of the region's Strategic Regional Arterial system, are not designated truck routes and so cannot be used for truck travel except directly to a delivery. Locally-designated truck routes are sometimes not coordinated between municipalities. Further, many municipalities restrict off-peak deliveries to local merchants, forcing truckers to either add to peak-period highway congestion or to find a nearby place to park, waiting for the allowable delivery time. However, there is a critical shortage of truck parking near destinations. These restrictions may make sense when considered alone, but when combined, all of these constraints often place severe pressures on truck operators and add substantially to transportation costs for area manufacturers, distributors, and retailers.

Water and air freight are also important for the region, but currently carry low volumes of freight movement, carrying 3 percent and less than one-half percent respectively.

While freight services provide an economic benefit for the region, there are also community impacts that must be addressed. Railroad delay at at-grade highway-rail and at rail-rail grade crossings is a major issue affecting highway users, passenger transport, and the freight rail industry itself. In addition to the economic impacts of delay and travel time reliability, grade crossing delay can be an issue to for community emergency responders. Grade crossing delay will likely be an increasingly frustrating issue for travelers as rail shipments increase and, more importantly, train lengths increase.

Other freight-related community issues important in our region include noise, air pollution, traffic crashes, hazardous materials, and emergency preparedness.

*Recommended direction for GO TO 2040*

GO TO 2040 should strongly support increased investment in the region's freight system. Investment will be required primarily by the private sector in the normal course of private business enterprise, but public investments will also be necessary to promote the economy, public health, safety, and welfare. The two goals of this increased investment should be to (1) improve the economic competitiveness of industry in metropolitan Chicago and to (2) reduce the impacts of freight operations on local communities, addressing travel delay, pollution, and safety.

To achieve these goals, the plan should include recommendations to maintain our current infrastructure and to move toward a state of good repair. Any improvements will require additional investment, so sustainable financing of freight will be a part of GO TO 2040's approach. Further, having good information with which to make investment decisions and operations improvements will require data sharing and transparency as well as coordinated investment. The region will need to study dedicated freight investments to improve its economic competitiveness and to reduce the negative cross-impacts of freight and passenger services and facilities. To improve freight operations, intelligent transportation systems and other innovations will play a vital role. Just as importantly, as the sophistication of the freight industry continues to improve, a ready, well-trained workforce will be important to keep metropolitan Chicago's freight system moving.

CMAP's freight approach to date has included a freight system study (<http://www.cmap.illinois.gov/cmp/freightsystem.aspx>) aimed at determining recommendations for inclusion in the GO TO 2040 plan. Below are the key recommendations resulting from that planning effort.

*Key Recommendations*

**CREATE Rail System Improvements & Next Steps**

CREATE consists of strategic improvements to the rail system, reducing freight bottlenecks and raising operating speeds. In doing so, the project improves the economic competitiveness of the region's manufacturing and transportation industries. In addition, CREATE will reduce the freight industry's impact on metropolitan communities by reducing grade-crossing delay and by reducing freight engine vehicle emissions. CREATE is a project of regional and national significance and although the project has made substantial progress, it still needs additional funds leading to completion. Funding this program should be a priority at the federal level. In addition to CREATE, the freight planning process has identified additional improvements to be made to the rail system.

- Prioritize funding for CREATE projects.
- Expedite implementation of the CREATE Program.<sup>1</sup>

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<sup>1</sup> CREATE partners include the State of Illinois, the City of Chicago, and the railroad industry.

- Develop, finance, and implement projects and improvements beyond those identified in the CREATE Program.

***Regional trucking improvements: truckways, truck routes, truck parking, delivery time management, etc.***

Most freight moves by truck, so a serious effort to confront excessive Chicago-area shipping costs needs to address truck transportation issues. A combination of factors tends to drive up Chicago area truck costs. A program of truck transportation improvements, primarily operational rather than capital in nature, should be pursued to address the Chicago region's truck system issues. Such a program would bring reduced congestion on the area's roadways, safety benefits, emissions reductions, and more efficient deliveries to local suppliers. Like CREATE, this truck-oriented program is potentially a public-private partnership.

A full program of truck system improvements is necessary, including an enhanced and integrated geographic information system, to improve freight mobility:

**Capital/Infrastructure**

- Establish dedicated truckways (roads set aside for trucks) or truck lanes on existing facilities. Some of these truckways may be integrated into regional managed lane programs.
- Identify and address deficient vertical clearances and bridge load restrictions to improve freight routing.

**Routes/Restrictions**

- Expand the regional truck route system to reduce unnecessary truck travel and to improve system efficiency by providing more direct routes to destinations.
- The City of Chicago should establish centralized freight distribution nodes to limit the number and size of delivery trucks in the Chicago Central Area.
- Explore changes to truck size and weight limits. Some proposals to allow higher-productivity vehicles, weighing economics and safety, will also facilitate freight vehicle mobility in urban environments while reducing pavement wear-and-tear.

**Delivery Times/Parking**

- Work to manage truck delivery times and reduce peak-period deliveries for regional efficiency, while requiring quiet and clean trucks to assure compatibility with local communities.
- Where delivery times cannot be addressed, establish truck parking facilities to reduce the need for peak-period truck travel.

***Organization and Public Policy: Regional Freight Authority and Regional Transportation Operations Coalition:***

CMAP and partners need to address economic needs and freight efficiency while assuring that metropolitan Chicago remains a place where a skilled workforce will want to live and where

businesses want to grow. A self-financed Regional Freight Authority, established with a balance of interests and a mandate to address these needs, will lower operating costs by upgrading regional infrastructure. For lower-cost operational improvements, the Regional Transportation Operations Coalition will be an appropriate mechanism to work with regional stakeholders and/or the Regional Freight Authority to implement freight improvements.

- Establish a Regional Freight Authority with the ability to finance freight system capital improvements and to address public policy issues, such as community issues (grade crossing delay, safety, and noise). Current financing has not been adequate to provide freight mobility or address freight-related community issues, so new revenue sources (for example, instituting a freight transfer fee or increased tolling) should be established for dedicated freight improvements. Models for this type of entity exist elsewhere throughout the country and the world.
- Address the regional trucking improvements identified above cooperatively with our partners through the Regional Transportation Operations Coalition. CMAP is working with partners to establish a Regional Transportation Operations Coalition, and can address much of the truck program above through this coalition.
- Specifically address community issues related to highway safety, hazardous shipment management and emergency preparedness, noise, air pollution, and grade crossing delay.

***Integrating Freight Needs and Financing into Infrastructure Prioritization.*** CMAP developed a number of evaluation criteria to analyze and prioritize capital projects and in other plan recommendation's (transportation financing and coordinated investment) have called attention to performance-based criteria to prioritize infrastructure investments. As these measures are developed, freight-related measures should be incorporated. To do this effectively, we must also improve our access and collection of freight-related data. The data can also be made publicly available through our Regional Indicators Project and used to market the region to industry, developers and freight providers.

- Promote the Chicago region as a development center for freight tracking and freight data-sharing technologies.
- Include freight-related performance measures in project evaluation measures.

ACTION REQUESTED: Discussion and direction to staff.

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