FREIGHT EFFICIENCY STRATEGIES: PLANNING AND POLICY

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A White Paper from the Freight Efficiency Strategies Development Group

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About the Freight Efficiency Strategies Development Group

In July 2015, Governor Jerry Brown issued Executive Order B-32-15, directing several state agencies to work together in developing an integrated action plan that will "establish clear targets to improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of California's freight system" and that the plan should "identify state policies, programs, and investments to achieve these targets". In response, an interagency group was formed to oversee the development of the California Sustainable Freight Action Plan (CSFAP). Members of the interagency group include the California Air Resources Board, the California Department of Transportation (Caltrans), the California Energy Commission (CEC), and the Governor's Office of Business and Economic Development (GO-Biz). As part of developing the plan, the interagency group has solicited feedback from a broad range of stakeholders through a variety of engagement activities and outreach efforts. A component of this engagement was the development of the Freight Efficiency Strategies Development Group (FESDG) made up of freight experts from academia, industry, and government. The purpose and main task of this group was to produce a series of white papers that identify promising strategies for increasing the efficiency of the freight system. A series of six papers were developed over the course of six months. Each paper focuses on a specific theme for increasing freight efficiency within the larger freight system.

About the National Center for Sustainable Transportation

The National Center for Sustainable Transportation is a consortium of leading universities committed to advancing an environmentally sustainable transportation system through cutting-edge research, direct policy engagement, and education of our future leaders. Consortium members include: University of California, Davis; University of California, Riverside; University of Southern California; California State University, Long Beach; Georgia Institute of Technology; and University of Vermont.

Disclaimer

Acknowledgments

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EXECUTIVE SUMMARY

The importance of freight transportation networks and other critical supply chain considerations are all too often buried in the planning functions of local government. Efforts such as the National Freight Strategic Plan are addressing this trend but coordination between state, regional, and local leaders remains challenging. To establish a broad perspective on ways that state departments of transportation (DOT) are facilitating interregional and statewide freight planning efforts, this white paper begins with a comparative analysis of state DOT organizational charts to identify where the freight planning functions are housed. This analysis features a historical comparison of how current organizational charts differ compared to earlier pre-2009 versions of state DOT structures.

Organizational structures and the internal freight priorities of state DOTs are critical, but so too are the modes of engagement used to gain comprehensive feedback from every stakeholder in the statewide supply chain. This outreach component includes strategic messaging, public information dissemination, public events, and in-person and online stakeholder engagement. To promote strategic statewide and interregional planning initiatives, public- and private-sector leaders must work together to address trends that have hindered such efforts for decades. Such trends include decentralized planning efforts, the deregulation of the transportation sector, a lack of coordination between local government leaders to plan for regional and statewide freight corridors, and failure to plan for inevitable conflicts between freight and commuter vehicles, transit operations as well as bicyclists and pedestrians.

On the most basic level, remedies for all of these above challenges will only be developed if civic coalitions of leaders from the public sector and the private sector find ways to make freight efficiency a top priority in the planning and policy stages of projects. Such agents of change correctly understand that if operational and technological innovations are to achieve their fullest potentials, planning and policy efforts must not only account for historical best practices but also respond to projected increases in freight volume and related technological challenges and opportunities.

To facilitate a process that drives statewide and interregional freight planning in California, this white paper identifies recommendations related to criteria that authors of the California Sustainable Freight Action Plan can use to benchmark the adoption of best practices. These best practices serve to elevate freight as a statewide priority within the organizational structure of state departments of transportation. This white paper also offers recommendations related to outreach best practices that leverage traditional in-person meetings and technology-driven methods.

Introduction

This White Paper presents best practices and recommendations on planning and policy efforts that could increase the efficiency of California's multimodal freight system. The Efficiency Strategies Development Group (EFDG) scope document states:

"This Think Tank will be focused on opportunities for Federal, State and local policies and the private sector to remove system-wide barriers to the efficient movement of freight."

Toward that end, this white paper seeks to serve as a synthesizing document that provides an overview of how coordinated planning efforts can make the movement of freight more efficient in California. Analysis of those planning efforts will draw from best practices in other U.S. states and reference the land-use sections of the National Freight Strategic Plan and offer commentary that translates those national perspectives to state, county, and municipal jurisdictions. At every stage of analysis, this white paper will recognize policy limitations and offer recommendations that factor in the appropriate role of state governance.

Theme 1: Strategic Statewide and Interregional Freight Planning

Although the movement of goods throughout our nation's corridors determines the livelihood of people in every community—and comprises the lifeblood of the domestic economy—freight has long been buried in the planning functions of local government with insufficient attempts to coordinate efforts across jurisdictional boundaries and different levels of government. This trend is gradually changing with efforts like the National Freight Strategic Plan, but significant coordination between state, regional, and local decision-making bodies remains a challenge. Every obstacle preventing meaningful freight efficiency innovations on the national level is exhibited in California, a state with the seventh largest economy in the world and goods movement challenges more formidable than those faced by most nations.

To begin with, "there is little design guidance for developing land around freight facilities or corridors and land-use planners in local governments are generally not taught about freight as part of their standard educational curriculum. Smaller MPOs and local government planning departments may have staffs of only a few people and may find it difficult to obtain budgets to specialize in areas such as freight. Lack of a dedicated source of freight funding could also reduce MPO demand for dedicated freight staff" (U.S. Department of Transportation [USDOT], 2015, p.47). Further complicating matters is the reality that "while State DOTs and MPOs play a predominant role in planning public freight transportation infrastructure, local governments largely control land-use decisions that are critical to undertaking transportation projects or alleviating conflicting development patterns. The difficulty of coordinating among these participants has been frequently cited as a barrier to improved freight system performance, most recently by the U.S. DOT's National Freight Advisory Committee (USDOT, 2015, p. 51).

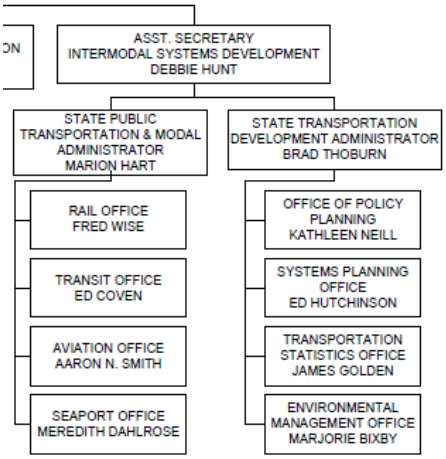
To establish a broad perspective on ways that state DOTs are (or are not) attempting to promote interregional and statewide freight planning efforts, the research began with a comparative analysis of state DOT organizational charts to identify where the freight planning functions are housed. This analysis also featured a historical comparison of how current organizational charts differ compared to earlier pre-2009 versions of state DOT structures. This

review revealed that a majority of state DOTs have not changed their organizational structures in ways that demonstrate freight planning and policy is an elevated priority.

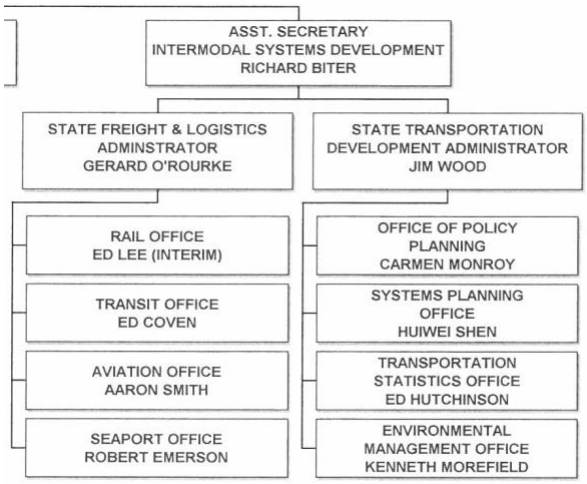
In California, for example, the Caltrans organization structure has changed in recent years, but not with regard to freight. The office of freight planning is housed within the Transportation Planning unit which is a division of Planning & Modal Programs. The Arizona DOT added an "Enforcement and Compliance Division," but its freight plan is still housed within the state's Multimodal Planning Division. Similarly, other states including Michigan, Minnesota, Georgia, and Illinois DOTs kept their freight planning elements housed within traditional planning divisions.

However, there were also some noteworthy examples of state DOTs that changed their organizational structures with regard to freight planning functions. The Florida DOT signaled a new focus on freight by changing the name of its freight planning division from "State Public Transportation and Modal" to "State Freight & Logistics" as shown here:

Before

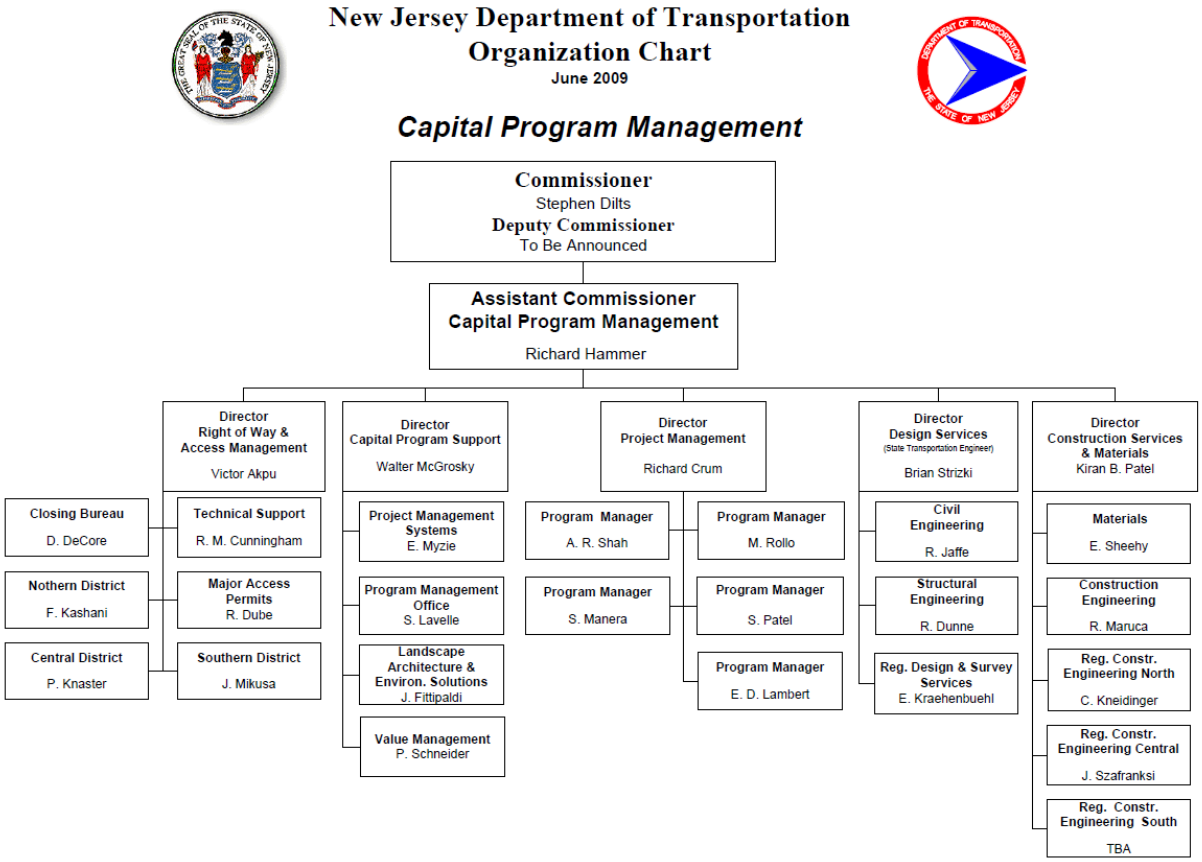


After

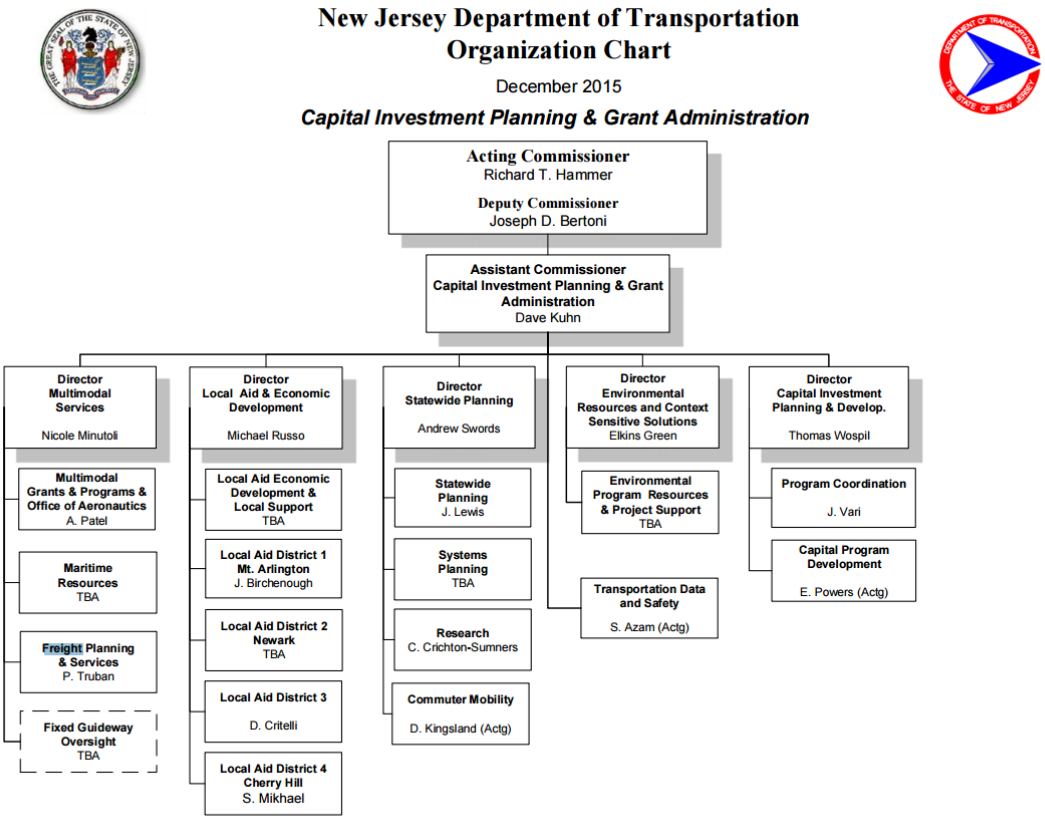


The New Jersey DOT also changed its "Capital Program Management" division in 2009 to "Capital Investment Planning & Grant Administration" in 2015. The latter now contains a Multimodal Service subdivision with a Freight Planning & Services department. The change is reflected below.

BEFORE

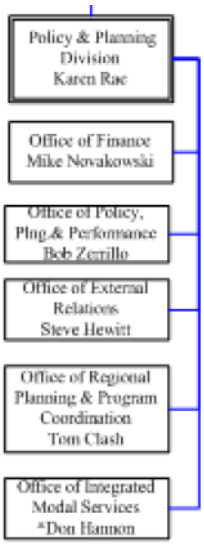

New Jersey Department of Transportation
Organization Chart
June 2009
Capital Program Management
Commissioner
Stephen Dilts
Deputy Commissioner
To Be Announced
Assistant Commissioner
Capital Program Management
Richard Hammer
Director
Right of Way &
Access Management
Victor Akpu
Closing Bureau
D. DeCore
Nothern District
F. Kashani
Central District
P. Knaster
Technical Support
R. M. Cunningham
Major Access
Permits
R. Dube
Southern District
J. Mikusa
Director
Capital Program Support
Walter McGrosky
Project Management
Systems
E. Myzie
Program Management
Office
S. Lavelle
Landscape
Architecture &
Environ. Solutions
J. Fittipaldi
Value Management
P. Schneider
Director
Project Management
Richard Crum
Program Manager
A. R. Shah
Program Manager
S. Manera
Program Manager
M. Rollo
Program Manager
S. Patel
Program Manager
E. D. Lambert
Director
Design Services
(State Transportation Engineer)
Brian Strizki
Civil
Engineering
R. Jaffe
Structural
Engineering
R. Dunne
Reg. Design & Survey
Services
E. Kraehenbuehl
Director
Construction Services
& Materials
Kiran B. Patel
Materials
E. Sheehy
Construction
Engineering
R. Maruca
Reg. Constr.
Engineering North
C. Kneidinger
Reg. Constr.
Engineering Central
J. Szafranksi
Reg. Constr.
Engineering South
TBA

AFTER

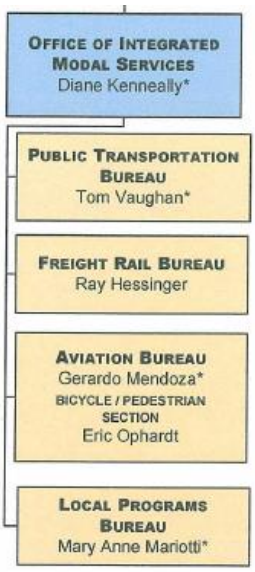


The New York DOT 2015 organizational chart also reflects a more prominent role for freight planning. As shown below, compared to 2009, the New York DOT added a new "Freight Rail Bureau" within its Office of Integrated Modal Services under the Policy and Planning Division.

2009



2015



The Maine DOT addresses freight through its Office of Freight and Business Services, which signals via organizational structure and in name that the worlds of freight/supply chain logistics and business development are interrelated (Cambridge Systematics Inc, 2014). Other state DOTs like Texas did not feature freight as a priority on organizational charts, but other aspects of their planning documentation demonstrated a business-facing approach to freight planning and policy that represent approaches that public- and private-sector leaders may consider as they develop new freight efficiency initiatives (Texas Department of Transportation, 2016).

Organizational structures and the internal freight priorities of state DOTs are critical, but so too are the modes of engagement used to gain comprehensive feedback from every stakeholder in the statewide supply chain. This outreach component includes strategic messaging, public information dissemination, public events, and in-person and online stakeholder engagement. To promote strategic statewide and interregional planning initiatives, public- and private-sector leaders must work together to address trends that have hindered such efforts for decades. Such trends include:

- decentralized planning efforts, the deregulation of the transportation sector;
- lack of coordination between local government leaders to plan for regional and statewide freight corridors; and
- failure to plan for inevitable conflicts between freight and commuter vehicles, transit operations as well as bicyclists and pedestrians.

On the most basic level, remedies for all of these above challenges will only be developed if civic coalitions of leaders from the public sector and the private sector find ways to make freight efficiency a top priority in the planning and policy stages of projects. Such agents of change correctly understand that if operational and technological innovations are to achieve their fullest potentials, planning and policy efforts must not only account for historical best

practices but also respond to projected increases in freight volume and related technological challenges and opportunities.

To facilitate a process that drives statewide and interregional freight planning in California, this white paper will identify best practices implemented in relevant states. Particular attention will be devoted to innovative examples of strategic planning and management of freight corridors in other states.

Statewide Freight Planning

In order to implement coordinated strategic freight planning efforts throughout California, it is critical that key stakeholders within the supply-chain continuum are engaged in an integrated and ongoing discussion/planning effort. Such engagement will ensure that State leaders are developing freight policy that is as comprehensive and relevant as possible. The white paper research included a review of a wide range of state DOT freight plans and found that public engagement (beyond the legally required public comment review process) was a feature in every state freight plan. However, the methods used and the degree to which state DOTs engaged the business communities affiliated with the state supply chain varied. Given their populations, ports, and blend of urban, suburban, and rural realities similar to California, the review focused on the Florida and Texas plans as useful comparisons for the development of a new freight optimization initiative in this state.

The Florida Department of Transportation's 2013 Freight Mobility and Trade Plan (FMTP) provides a valuable approach to broad-based supply-chain engagement. From the outset, the FMTP seeks to "develop a collaborative and transparent project prioritization process to match funding for short-term and long-term requirements to ensure maximum return on investment (ROI)" (Florida Department of Transportation [FDOT], 2013, p.2).

A clear strength of the Florida plan is its strategic engagement and messaging efforts to target the state's supply-chain community. This mode of outreach is worth highlighting as a best practice given that freight planning requires more coordination than other modes of transportation. This focus on supply-chain outreach was evident in Florida's FMTP and its related executive summary, which are very clearly designed to be accessible for policy makers and the general public. "Well over 750 members from Florida's private businesses and agency partners were involved in the process. Participation was all encompassing, ranging from local community planners and freight users, to business leaders, and even the Honorable Rick Scott, Governor of the State of Florida," (FDOT, 2013, p.13). According to the FMTP, outreach efforts focused on:

- lack of workforce technical skills in logistics;
- freight flow imbalances;
- need for greater efficient intermodal infrastructure;
- expanding energy sources; and
- need for better integration among transportation, trade, and energy.

Those abovementioned focuses were addressed in "five stages of direct engagement," which were titled: Regional Listening Forums; the 1st Florida Freight Leadership Forum; Business Forum I: Scenario Planning; Business Forum II: Plan Development; and Business Forum III: Plan

Review" (FDOT, 2013, p.11). Beyond the stages of engagement that informed that creation of the FMTP, Florida leaders emphasized that outreach would continue after the completion of the initial plan. The FMTP authors described the need for a "dynamic document that will be updated as needed, and will demonstrate that, when all stakeholders communicate and collaborate, maximum effort can be energized to propel Florida forward as the nation's freight leader" (FDOT, 2013, p.2).

The ongoing outreach methods outlined in the Florida FMTP are useful touchstones for future California outreach. "Following an industry participation approach, rather than a government-only focus, better reflects the needs of freight stakeholders, allows the state to be more proactive and responsive, and streamlines freight investments. This collaborative process provides venues and opportunities for significant interaction with those who utilize, provide, and plan for the freight transportation system" (FDOT, 2013, p.12).

The Florida FMTP offers a valuable perspective on the importance of strategic messaging and supply-chain stakeholder engagement. Given that freight planning and policy is more complicated and less discussed than other modes of transportation in states across the nation, communications and public awareness campaigns are critical elements in any attempt to make interregional and statewide freight planning efforts a top priority. Further, strategic and unified messaging campaigns can also serve as a means to offer a consistent freight narrative to local decision makers who largely determine land-use decisions that impact, for better or worse, the fate of interregional and statewide planning efforts. Local elected officials often view the regulations from various state agencies as disparate and unrelated. The State of California could greatly enhance its outreach and communication efforts with local decision makers if leaders in the California State Transportation Agency, the California Environmental Protection Agency, the Natural Resources Agency, the California Air Resources Board, the California Department of Transportation, the California Energy Commission, and the Governor's Office of Business and Economic Development found ways to articulate a consistent and integrated freight narrative. Said another way, the July 2016 integrated action plan called for in Gov. Jerry Brown's executive order will be far more effective if it calls upon leaders in agencies throughout the State of California to reinforce a consistently strategic message about the importance of freight to the State's well-being.

For the reasons just stated, Florida's FMTP is a valuable point of reference for any state leader looking to develop a comprehensive stakeholder outreach campaign and consistent messaging strategy to promote more effective statewide freight planning efforts. For California's purposes, it is worth noting that the Florida plan does not make the environmental and community impacts of freight movement as high a priority as is called for in Gov. Brown's executive order. However, incorporating such environmental targets into an integrated California freight plan are feasible if those considerations are identified as top priorities upfront in the process.

It is also important to note that Florida is not the only state to employ such a comprehensive outreach strategy to supply-chain stakeholders. Although more planning driven than the Florida plan, the Texas Department of Transportation (TxDOT) Texas Freight Mobility Plan offers another very recent and instructive example of an industry-facing approach to stakeholder engagement. In both cases, the Florida and Texas plans demonstrate how strategic engagement

and targeted messaging are effective tools for encouraging and maintaining industry involvement and public awareness, which is essential if freight is going to be elevated to a top-tier priority in statewide planning efforts moving forward.

The Texas plan emphasizes the value of institutional coordination with calls for:

- increased collaboration with neighboring states to ensure a seamless transition of the system across state lines;
- collaboration and partnerships between public and private sectors … needed to better align planning timelines, and improve project development processes; and
- improved collaboration and coordination with federal and state agencies, local governments, and MPOs is necessary to leverage infrastructure improvements, and increase support for freight issues (Texas Department of Transportation[TxDOT] , 2016, p.4).

TxDOT's proactive engagement with "state and federal agencies, MPOs, local governments, private sector entities such as railroads and ports, and other organizations" (TxDOT, 2016, p.217) represents a model practice for states looking to develop their own freight optimization efforts. As with most states and in response to MAP-21 guidance, the Texas Transportation Commission established the Texas Freight Advisory Committee (TxFAC) in January 2013 as part of the development of its freight plan. TxFAC members included "private-sector business leaders, modal representatives and elected officials," (TxDOT, 2016, p.197), who were responsible for, in part:

- Promoting the logistics industry and freight movement needs to enhance Texas' economic development.
- Educating the public and elected officials on how freight is directly tied to the economy (TxDOT, 2016, p.197).

Similar to the Florida freight plan, the Texas plan drew insights from a series of "listening sessions" that were "designed to engage a cross section of public- and private-sector freight stakeholders in urban, suburban and rural communities across Texas with the goal of incorporating local issues and concerns into the Freight Plan"(TxDOT, 2016, p. 198). TxDOT also solicited input from commercial vehicle operators and motor carriers to ensure that perspectives from "front-line operators" were incorporated into the freight plan. "In September 2013, 1,195 commercial vehicle operator interviews were conducted by TxDOT representatives at 10 locations across Texas" (TxDOT, 2016, p.199). Those interviews provided TxDOT with insights on freight flow locations throughout the state. "The interviews also supported data analysis from previously conducted research and modeling as it relates to the origins and destinations of truck freight, equipment, cargo type and areas of congestion" (TxDOT, 2016, p.199). This knowledge helped the state analyze its supply chains by commodity (e.g. automotive, cotton, beef) and the plan presents each product's focused supply chain accompanied by its own process flow.

TxDOT also hosted a range of educational and public outreach events to engage and inform the public about the State's new emphasis on improving its supply chain efficiency. As a means of engaging "private-sector strategic visionaries, decision-makers, advocacy groups and business leaders in a forum conducive to maximizing private corporate-sector involvement" (TXDOT, 2016, p.200), TxDOT partnered with North America Strategy for Competitiveness to hold a summit that would help TxDOT identify:

- an ideal Texas multimodal freight transportation system in 2040;
- needs to enhance the state's growth and economic competitiveness; and
- other strategic initiatives (such as policies, projects and funding) to promote improvements in Texas' freight transportation system (TXDOT, 2016, p.200).

TxDOT also developed the website www.MoveTexasFreight.com as another method of outreach and engagement with stakeholders. TxDOT described the website as valuable in promoting two-way communication via the comment feature on the site. Overall, TxDOT reported that the site proved a valuable tool "as it enabled fast, convenient distribution of information to all stakeholders and allowed for input to be received outside of an in-person meeting" (TXDOT, 2016, p.201). TxDOT's practical assessment of the value of online stakeholder engagement should not be overlooked. Indeed, online and network-driven information technology are powerful tools state leaders can leverage to connect strategic stakeholders, inform the public about the importance of the supply chain, and convey a consistent message about freight optimization best practices that local leaders can implement within their local jurisdictions to promote interregional and statewide operability.

Another insightful aspect of the Texas freight plan is its insights drawn from not only external stakeholders but also internal TxDOT and Texas Department Motor Vehicles staffers. This internal review "included staff from planning, aviation, rail, traffic and safety, maritime, toll operations, design, construction, bridge, state legislative affairs, federal affairs, and international relations" (TXDOT, 2016, p.201). The stated goals for the internal review were to:

- open the lines of communication among different divisions and staff members;
- build advocacy for integrating freight issues throughout TxDOT;
- highlight process improvements to enhance the integration of freight within TxDOT;
- improve, integrate and institutionalize freight planning within TxDOT and provide informational support to the TxFAC; and
- develop a structure to describe how freight planning activities fit within existing TxDOT planning(TXDOT, 2016, p.201).

Other TxDOT public engagement efforts included speaking engagements with a range of economic development, transportation, and metropolitan planning organizations.

Beyond best practices in stakeholder outreach and public outreach, the Florida and Texas plans demonstrate the importance of one operative word: education. As previously stated, freight and the value of the supply chain has been misunderstood and undervalued on many levels for decades. The only way to elevate freight as a statewide priority is through the formation of public- and private-sector partnerships to implement public education initiatives that communicate the importance of freight in compelling ways that will lend themselves to

dissemination on social media networks as well as through academic channels that shape the development of new curriculum across the academic continuum. Only after local elected officials and business and community leaders understand ways to support rather than impede supply chain efficiency will comprehensive statewide and interregional freight planning efforts be possible.

A final note about stakeholder engagement: dynamic networks of business, government, academic, and community leaders are brought together to create freight plans but are not often engaged in follow up activities. Given the rise of enterprise resource planning software platforms, these networks may more easily be maintained and cultivated for future initiatives seeking further freight/supply chain innovations.

Theme 2: Truck Routes and Integrated Corridor Management As Examples Of Statewide Planning

Establishing interregional and statewide truck routes is a key step for not only making goods movement throughout California more efficient, but also in reducing negative impacts on local communities. The Planning and Policy white paper team reviewed a range of statewide and interregional truck route planning efforts and identified some common themes. The first obvious point is that leaders in transportation understand that statewide freight efficiency will not be possible until local jurisdictions throughout California are able to coordinate planning efforts in such a way that accommodates truck routes that improve efficiency at every stage in the supply chain—from pick-up to last-mile delivery.

As established earlier in this paper, statewide and policy efforts require a consistent outreach narrative paired with robust stakeholder engagement. The white paper team reviewed a range of statewide planning documents from relevant state DOTs to identify best practices to inform California's freight efficiency efforts. That process revealed that a range of statewide and interregional truck route and integrated corridor planning efforts have been conducted in California and other states over the last decade. However, large-scale implementation has not yet occurred.

The National Freight Strategic Plan offers a basic rationale for the value of truck route planning:

An effective way for local governments to mitigate adverse community impacts is to preclude them from occurring in the first place. At the local level, this can often be accomplished through informed land-use decisions and communication with the affected communities. If local land uses, including residential demographics, are well understood and mapped, placement of freight and non-freight facilities can be done with allowances for appropriate buffer zones and freight routes. This effort necessarily requires a look into the future. Planning today for the inclusion of future freight movement and its interaction with population growth in urban areas can lead to far fewer adverse impacts to local residents and the environment. As noted previously, however, local government decisions to re-zone land are often made without information about current freight activity and needs, much less future freight traffic flows or supply chain requirements. Gaining information of this type will in almost all cases require coordination with MPO, State, and national-level forecasts (USDOT, 2015, p. 64).

In the circulation element of its General Plan, the City of Arroyo Grande, California, included a simple declarative sentence: "Truck routes should coordinate with County and adjoining cities

designated routes and avoid traversing residential areas" (City of Arroyo Grande). Prosaic as it may seem, inclusion of this sentence signals a commitment to mitigating adverse impacts of truck movements in Arroyo Grande and an awareness that a "municipal truck route network should be coordinated with neighboring jurisdictions to avoid areas containing sensitive land uses" (Federal Highway Administration [FHWA], 2012, p.56). If every municipal General Plan in California included language that highlighted the value of truck trip coordination in local planning efforts, it would create an environment in California that promoted statewide and interregional planning efforts. This notion is reinforced with the emphasis placed on freight education in the first portion of this white paper and is an important point to foreground in the discussion of any truck route implementation.

One very recent attempt by California policy makers to promote the development of a statewide truck route was presented in California Assembly Bill (AB) 2432. Introduced on February 19, 2016, AB 2432 called for Caltrans to "prepare an inventory of all state and locally designated truck routes and services" that would be published in a "statewide Truck Route Network" website. AB 2432 also called for the preparation of "a plan and schedule for addressing all inefficiencies and truck transportation network gaps, including an estimate of the annual cost and the total cost of carrying out the plan." Such a website and related plan to address gaps and inefficiencies in the current "patchwork of truck routes throughout the state" could serve as a valuable tool to convene local decision makers and industry stakeholders to establish regional and statewide truck routes that would improve the efficiency and sustainability of California's supply chain.

Caltrans like other state DOTs has access to archives of past and current local truck routes throughout the state—as presented here: http://www.dot.ca.gov/hq/traffops/trucks/truckmap/local-truck-routes.htm. The challenge is how to coordinate and connect.

One way to engage local leaders to take on regional and statewide planning efforts is to begin with outreach efforts that directly relate to transportation concerns in their own local areas. To better understand traffic congestion and its effects on the efficiency of freight transportation, the American Transportation Research Institute (ATRI) and the Federal Highway Administration (FHWA) developed an online form (see below) that local stakeholders from across the country can use to submit information about bottlenecks within their respective regions. The online form serves as a valuable method to solicit information pertaining to traffic congestion. An enhanced version of that tool could prove beneficial in establishing regional planning coalitions. For example, if local decision makers from Pasadena and Burbank, California submitted information to the state concerning a certain bottleneck on the bordering Glendale area, those local leaders could be engaged by state leaders to support a regional planning initiative to address that bottleneck. This tool could aid in promoting the improvement of state and local planning efforts.

FREIGHT PERFORMANCE MEASURES

Please submit details regarding locations that you feel should be monitored by the Freight Performance Measures program using the form below. Thank you

	City	State	Highway(s)	Description
Location 1		Select:		
Location 2		Select:		
Location 3		Select:		

Submit Information>>

Another good example of local stakeholder engagement is reflected in the Washington State Department of Transportation's freight advisories, which alert stakeholders throughout the state about important weather and safety warnings that impact the movement of goods. Here is an example:

> WSDOT ALERT: SR 14 closed in Klickitat County due to tanker truck crash and fuel spill
>
> DATE/TIME: Feb. 28, 2016 2:45 p.m.
>
> DESCRIPTION: Both directions of SR 14 are closed due to a rolled over tanker truck and fuel spill near Roosevelt, (milepost 133.5). Westbound SR 14 is closed at SR 221 in Paterson, and eastbound is closed at US 97 near Maryhill. It will take crews approximately 8 hours to clean up several thousand gallons of spilled fuel and remove the vehicle. The Washington State Patrol and the Washington State Department of Transportation are on-scene. Drivers should avoid the area and add extra time for their trips.
>
> LOCATION: SR 14, Roosevelt, Klickitat County
>
> START: Feb. 28, 2016 11:34 a.m.
>
> Estimated END: Feb. 28, 2016 11 p.m.

Both the Freight Performance Measures and the Washington State DOT freight advisories reflect a service-driven approach to stakeholder engagement. By directly appealing to the local and operational needs of stakeholders, state transportation leaders are able to gather data about engaged local leaders and supply chain stakeholders. Using that data, state leaders can conduct outreach efforts with locally invested public- and private-sector leaders to form strategic coalitions and promote regional and statewide planning efforts.

Following are some examples of models from other states with lessons for California.

GA Truck Lane Needs Study

In 2006, the Georgia Department of Transportation (GDOT) conducted a "Truck Lane Needs Identification Study" to determine the feasibility of "a truck-only lane system in Georgia and to identify locations where truck only lanes can be feasible from the standpoints of engineering,

operations, and economics" (Georgia Department of Transportation[GDOT], 2006, p.1) The GDOT study derived findings from a meeting with a range of stakeholders from FHWA, GDOT, Florida DOT, Norfolk Southern, the GA Chamber of Commerce, GA Port Authorities, GA Power Company, GA State Road and Tollway Authority, GA Motor Trucking Association, among other stakeholders. During that meeting GDOT staffers facilitated a breakout session where one public-sector and one private-sector group each responded to the same set of questions regarding the implementation of a truck-only lane system in Georgia. The questions are useful points of reference for California leaders seeking to conduct stakeholder outreach to support the development of interregional and statewide truck routes. The GDOT breakout session aligned with the basic outreach approach noted in the Florida and Texas DOT plans with balanced outreach to both public- and private sector leaders. The value of that balance is illustrated in the response to this question:

Besides traffic congestion, what are the most significant issues impacting truck travel in Georgia?

Public-sector representatives gave the following responses:

- Reliability
- Enforcement
- Safety
- Air Quality
- Comfort Level
- Reduces capacity
- Land Use

Private-sector representatives gave some responses that overlapped with the public-sector group, but they also raised other issues, including:

- Reliability/unreliability of travel times
- Interactions between cars and trucks
- Public awareness of truck issues (i.e. how long it takes to stop a truck, etc.)
- Safety – mixed travel streams
- Fuel costs
- Role of "just in time" delivery systems
- Congestion – impacts on shippers' business decisions
- Trucks desire continuous through movement with as little delay as possible
- Understanding the truck movements (local vs. through/long haul)
- Permitted moves (i.e. oversize loads) (GDOT, 2006, p.3).

The public- and private-sector groups also provided instructive responses to this question:

What factors should be considered in determining whether truck only lanes should be built in Georgia?

Public-sector representative responses:

- What kind? Segments? Systems?

- Access and configuration
- Financing
- Truck volumes
- Congestion
- Truck generators
- Pricing
- Demand forecasts
- Vehicle classifications
- Time-of-day traffic/truck volumes
- Safety
- Costs/benefits
- Policies
- Education
- Freight mode choice
- Economics of freight
- Intermodal connectivity
- Needs of shippers/receivers
- Hours of service regulation
- Needs of consumers
- Roadway design
- Infrastructure maintenance
- Urban circumferentials

Public-sector representative responses:

- Customers with no inventory (they rely on timely truck deliveries)
- Strategic Industry Task Force
- Logistics are critical
- Incentives to attract business
- Infrastructure costs (related/leading to load limits that restrict route choice)
- Requirement for large truck pools – impacting local land uses
- Larger local markets (within large urban areas like Atlanta)
- Population growth
- Cost/who pays?
- Recognize truck issues in project design phase – design considerations that are
- appropriate for trucks
- Express lanes for through trucks
- Dispatching capacity – assigning traffic to lanes (like railroads control their operations)
- Incident management
- Separate cars and trucks
- Safety
- Traffic volumes
- Congestion

- Need for better access in urban areas
- Rural areas as TOL candidate areas (due to right-of-way availability and easy maintenance) (GDOT, 2006,p. 3-4)

The questions used by the Georgia DOT to gain broad-based stakeholder perspective on the implementation of truck-only lane systems serve as practical templates of inquiry for California-based engagement with public- and private-sector supply-chain stakeholders. Other Georgia DOT questions worth reviewing are listed below. While reviewing these questions, it is valuable to consider how these questions could be adapted to relate more directly to the implementation of interregional and statewide truck routes in California.

Who should be involved in developing public policies on truck only lanes?

- *California: What public- and private-sector stakeholders should be involved in developing interregional and statewide truck routes in California?*

How familiar are you with the concept of Truck Only Lanes?

- *California: How familiar are you with the concepts of interregional and statewide truck routes?*

Besides traffic congestion, what do you see as the three greatest transportation issues or concerns regarding Truck Only Lanes?

- *California: Besides traffic congestion, what do you see as the three greatest transportation issues or concerns regarding interregional and statewide truck routes?*

What transportation corridors and areas of the State are of most interest to you in terms of truck and freight-related traffic?

- *California: no adaptation necessary.*

Do you believe Truck Only Lanes are needed in Georgia? Where? Why?

- *California:* Do you believe interregional and statewide truck routes are needed in CA? Where? Why?

Has your business been impacted by truck-related accidents?

- *California: no adaptation necessary.*

Other difficulty in transporting goods and/or services on Georgia's interstate highways and other important routes?

- *California: Other difficulty in transporting goods and/or services on California's interstate highways and other important routes?*

Overall, how efficiently do you think Georgia's freight mobility is?

- *California: Overall, how efficiently do you think California's freight mobility is?*

What advice do you have for the project team for exploring the feasibility of truck only lanes in Georgia?

- *California: What advice do you have for the project team for exploring the feasibility of interregional and statewide truck routes in California?*

It is a self-evident statement, the insight is sometimes lost: Comprehensive and inclusive stakeholder engagement leads to comprehensive and inclusive policy formation and related planning development. That sentiment was reinforced by the exit comments of the GDOT breakout session. When asked for feedback and ways to improve stakeholder engagement, respondents stated that GDOT must find new ways "to involve more industry representatives at the stakeholder meetings, especially national shippers and carriers" (GDOT, 2006, p.8).

Colorado RoadX

The Colorado DOT's RoadX initiative strives to guide the integration of technology into Colorado's transportation system with a positive impact on corridor-wide truck traffic. Colorado acknowledges the potential of technology as a means to achieve social prosperity. As such, CDOT is investing $20 million into both starting funds for RoadX and congestion and safety optimization technologies. Cooperation and collaboration are both critical with projects of this scope. CDOT recognizes this as they begin convening the RoadX InnoVisers Council comprised of local and international leaders, advisors, and innovators from both the public and private sectors (Colorado Department of Transportation[CDOT], 2014).

Projects under RoadX include:

Interoperable Data Platform: Deploy a web-based, open source safety, traffic and transportation system data platform capable of communicating with a diverse collection of drivers, cellular/mobile applications, and connected and autonomous vehicles to deliver critical real-time, actionable information and safety voice alerts such as multi-vehicle pileups, rock falls, avalanche slides, white-out/fog-out low visibility, wrong-way drivers, runaway trucks, stopped vehicles, incident advisory, icy roads, emergency vehicles, curve speed warnings, intersection hazards, work zone warnings, sun glare warnings.

I-70 Connected Vehicle Pilot Deployment: Maximize safety and mobility on the I-70 mountainous corridor through probe data collection, vehicle-to-infrastructure (V2I) communication, and related decision support analysis to enable real time traffic management and traveler information and safety applications.

Technology Planning Process: Develop NEPA/environmental evaluation process that effectively includes technology and operation innovations as a significant part of the alternatives analysis. For projects already past the environmental evaluation process, develop a "RoadX" clearance process to ensure all alternatives are incorporated as a project moves into design (CDOT, 2014).

Illinois Truck Route Grant Program

The Illinois Truck Access Route Program (TARP) is intended to help local governments upgrade roads to accommodate 80,000 pound truck loads. Additionally, the routes are intended to provide access to points for both loading and unloading and to facilities for food, fuel truck repair and driver rest. Any projects under the program must connect to a truck route and end at another truck route or truck generator.

The TARP annual appropriation is $7.0 million. The program will provide $45,000 per lane mile and $22,000 per eligible intersection for selected projects. The state participation cannot exceed 50% of the total construction costs or $900,000 (whichever is less). Additionally, if the project is done in conjunction with a state Economic Development Project (EDP), the project will be capped at $150,000. Each fall the Illinois DOT solicits local projects that can be constructed during the upcoming fiscal year (Truck Access Route Program, Illinois Department of Transportation, 2015)

Identifying and Prototyping Integrated Corridor Management Strategies for Application in Virginia

The Virginia Center for Transportation Innovation and Research sponsored a study that sought to identify and analyze current issues with the state's corridor management practices as a means to address issues relating to highway congestion and its negative impacts on urban transportation. Several subsystems comprise a greater corridor management system such as arterial signal control systems and transit systems. The study attributes institutional barriers and traditional practices as causes for the subsystems operating in isolation from one another. Therefore, the goal would be to develop a system that coordinates and forces subsystems to work collaboratively (otherwise known as Integrated Corridor Management (Asare & Smith, 2014).

The study was broken up into eight main tasks:

1. Literature review on ICM
2. Selection of site to test prototype ICM strategies
3. Identification of best practices and potential ICM strategies
4. Development of ICM evaluation methodology
5. Development and validation of simulation network
6. Evaluation of proposed ICM strategies
7. Analysis of results
8. Development of recommendations (Center for Transportation).

Three critical success factors were identified that demonstrate the potential for ICM application through eight of Virginia's "pioneer" states (sponsored by the USDOT ICM Initiative):

1. A robust Intelligent Transportation Systems (ITS) infrastructure.
2. The need for Stakeholder partnerships which work toward the development of institutional frameworks within which the ICM will be implemented and operated.
3. The need to adopt standard and protocols through which information will be disseminated.

An experiment was also conducted to further explore the effectiveness of ICM. The experiment involved prototyping several ICM strategies within a simulated environment using a segment of the I-95/I-395 corridor as a test bed. Results of simulation revealed:

- Corridor person flow per hour could be potentially increased by 14% under non-incident traffic conditions, compared to 38% during incident conditions.
- The I-95 general purpose lanes could experience (in terms of average travel time) a reduction of 48% and 58% under non-incident and incident traffic conditions respectively.

- Average travel times on the primary arterial (U.S. 1N) improved by 29% under both non-incident and incident conditions.
- Fuel usage was reduced by 34% and 33% during non-incident and incident conditions respectively.
- Benefit cost rations of 4:1 and 6:1 were obtained for non-incident and incident conditions respectively (Asare & Smith, 2014).

Overall, the study concluded that the most promising ICM strategies Virginia could implement were: variable speed limits, increased transit and parking capacities, HOV bypass lanes, and HOV/HOT lanes.

Conclusion

After reviewing a range of state DOT organizational charts and related outreach methods used to engage strategic stakeholder groups, the Planning and Policy team has established recommendations to inform the development of the California Sustainable Freight Action Plan.

The first series of recommendations relates to criteria that authors of the California Sustainable Freight Action Plan can use to benchmark the adoption of best practices related to elevating freight as a statewide priority within the organizational structure of state DOTs. Toward that end, the following best practices should be considered:

1. The freight functions within a state DOT should be prominently featured on organizational charts so that members of the public can easily identify which division carries out those functions. That organizational chart should also state the name of the director for the freight division. Presenting freight as its own transportation division with a clear leadership structure sends a clear message that goods movement is a statewide priority. Signaling that freight functions are an organizational priority will also help with related public outreach as well as stakeholder engagement with leaders in the state and national supply chain.
2. Given that freight functions require constant engagement with members from the goods movement industry, state DOT leadership should also consider housing freight functions within a business services division of the organization. Alternatively, DOT leadership can house freight functions within more traditional transportation organizational structures but create a business services subdivision. State DOTs can also build business-facing approaches into other related planning documentation to better engage industry leaders.

The second series of recommendations relates to outreach best practices. Within goods movement and logistics circles, it is understood that freight planning and policy is more complicated and less discussed than other modes of transportation. However, this notion is largely not understood by local decision makers and members of the general public. This is why communications and public awareness campaigns are critical elements in any attempt to make interregional and statewide freight planning efforts a top priority. It is essential that public- and private-sector leaders communicate the invaluable role that the goods movement industry plays in the domestic economy and, more importantly, in getting essential food and goods to communities throughout the nation. Failure to communicate this message makes it more likely

that local elected officials and the constituents they serve will take for granted the value of the local, state, and national supply chain while complaining about negative effects related to what is ultimately a failure to make freight planning and policy a priority.

This White Paper recommends the following outreach best practices:

1. Develop and conduct strategic and unified messaging campaigns to offer a consistent freight narrative to local decision makers who largely determine land-use decisions that determine interregional and statewide planning efforts.
2. Engage local leaders to take on regional and statewide planning efforts by using outreach methods that directly relate to transportation concerns in their own local areas. One simple and cost-effective way to conduct such outreach is to use an online form that local decision makers can use to report bottlenecks in their respective region of influence. Local decision makers who submit information to the state concerning bottlenecks could then be engaged by state leaders to support a regional planning initiative to mitigate congestion related to how that bottleneck connects to the larger statewide transportation network. Using that data, state leaders can conduct outreach efforts with locally invested public- and private-sector leaders to form strategic coalitions and promote regional and statewide planning efforts. Data gathered from this online form of engagement could also be used to develop regional and statewide plans to address gaps and inefficiencies in the State freight transportation network.

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