

NATIONAL FREIGHT ADVISORY COMMITTEE

**Proposed Recommendations to
U.S. Department of Transportation
for the Development of the
National Freight Strategic Plan**



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Introduction

The National Freight Advisory Committee (NFAC or Committee) is pleased to present recommendations contained in this report to the U.S. Department of Transportation (U.S. DOT or Department) for consideration in the development of the National Freight Strategic Plan (Plan) that will implement and advance the National Freight Policy and Goals established under the Moving Ahead for Progress in the 21st Century Act (MAP-21). These recommendations reflect the hard work of six established Subcommittees that originally presented over 90 recommendations to the Committee as a whole. The six Subcommittees under the NFAC are as follows:

1. Conditions, Performance, and Data
2. Safety, Security, and Environment
3. Project Delivery and Operations
4. Research, Innovation, and Technology
5. International Freight Strategies and Operations
6. First and Last Mile

These Subcommittees conducted a SWOT (Strengths, Weaknesses, Opportunities, & Threats) analysis related to their Subcommittee's charge. The results of the analyses were used to formulate recommendations related to the following three elements outlined in MAP-21.

- ☑ **Barriers**: An assessment of statutory, regulatory, technological, institutional, financial, and other barriers to improved freight transportation performance (including opportunities for overcoming the barriers);
- ☑ **Best Practices**: To improve the performance of the national freight network; and
- ☑ **Best Practices**: To mitigate the impacts of freight movement on communities.

Over the last six months, the Subcommittees held numerous teleconferences, webinars, face-to-face meetings, freight facility tours, and sought input from private and public sector freight transportation stakeholders throughout the nation. Given time constraints facing the Department in proposing a draft Reauthorization Bill of MAP-21 to Congress, the NFAC moved quickly in finalizing these recommendations for the Department to consider. The recommendations contained in this report reflect an overall consensus from the NFAC membership. Furthermore, because these recommendations reflect a compilation of submissions from six Subcommittees, the writing style and prose may vary across recommendations. Members of the NFAC and U.S.



DOT staff felt it was essential to avoid significant editing to better ensure that the full intention and meaning of the original work remained intact.

The recommendations in the report are categorized accordingly to the three elements by the following Chapters:

1. Recommendations Related to Assessment of Barriers (Recommendations B1 to B43)
2. Recommendations Related to Best Practices for Improving the Performance of the Freight Network (Recommendations P1 to P24)
3. Recommendations Related to Best Practices to Mitigate Community Impacts (Recommendations C1 to C17)

Per this report, the NFAC proposes submitting future recommendations to the Department regarding streamlining efforts for state and local planning compliance and reporting requirements, developing goals related to freight safety, and possibly additional recommendations when the Department releases the National Freight Strategic Plan.

As the Department works to prepare the Plan, the NFAC looks forward to future tasks including the review of the Department's proposed legislation of the MAP-21 Reauthorization later this spring and appreciates the opportunity to provide further recommendations.



Chapter 1: Recommendations Related to Assessment of Barriers

Summary

The national freight strategic plan shall include “an assessment of statutory, regulatory, technological, institutional, financial, and other barriers to improved freight transportation performance (including opportunities for overcoming the barriers)”.

The nation’s freight transportation system involves multi-modal networks (rail, air, highway, waterways) and both public and private sectors. All levels of government serve a vital role in freight and goods movement, from regulation of interstate commerce at the federal level to truck loading zones at the local level. The complexity of players and stakeholders, as well as the interdependencies of supply chains, calls for effective coordination.

The nation’s freight system faces many barriers to improved system performance. This chapter takes a look at the various barriers challenging the nation’s freight industry and proposes recommendations to remove these barriers to and maximize our nation’s global competitiveness, while meeting national goals of safety, security and sustainability.

Barriers assessed include statutory, regulatory, technological, institutional, financial, and other barriers. The barrier list below is not complete, but rather provides a high level summary of the barriers and trends identified by the National Freight Advisory Committee:

Statutory: Lack of surface transportation legislation that is multimodal and fully addresses freight as well as passenger transport (MAP21 remains highway and transit centric); Lack of an explicit national freight policy or plan.

Regulatory: Different regulatory structures exist across modes; Different regulatory authority exists across government entities; Lack of agreement regarding effectiveness of various regulations (e.g. hours of service); Fragmented regulatory environment (eg truck size, truck emissions, heavy load permits, credentialing programs); Changing or unclear regulations concerning air quality, water quality and traffic (issues such as storm water treatment thresholds); Regulatory barriers may delay projects and increase costs, or lead to productivity losses.

Technological: Lack of interoperability and standards across modes and diverse systems; High implementation costs for system-wide tech changes; Limited technology development/demonstration programs for freight systems; Lack of workforce technical capacity

Institutional: Complexity of institutions, public and private participating in freight system; Mismatch of federal modal structure with intermodal nature of freight system

Financial: Anticipated insolvency of the Highway Trust Fund and its impact on planning and investment decision-making; Limited funding for freight specific projects that are



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multimodal and crosses jurisdictional boundaries; Complexity and challenges of Private-Public Partnerships; Aging and deteriorating infrastructure across all modes (rail possible exception); Ensure collected tax revenues are used for their intended purposes (i.e, Harbor Maintenance Tax).

Other: Limited investment in medium and long-term research; Legacy system problems (eg outdated and aging infrastructure); Lack of data for monitoring and analyzing freight system; Limited planning for future freight demand; Congestion and bottlenecks due to capacity and/or regulatory constraints.

In developing recommendations to address the identified barriers, focus areas surfaced making it most strategic to categorize the various recommendations by a given theme. The themes pertinent to the assessment of barriers include:

1. Safety and Security
2. Funding
3. Streamlining
4. Harmonization of Policy, Regulation and Programs
5. Data, Research and Education
6. Technology Implementation

The recommendations of the National Freight Advisory Committee (NFAC) prepared for the Secretary of Transportation for the purpose of addressing the most significant barriers facing our national freight system are presented in the following sections.



Recommendations

SAFETY AND SECURITY

Safety of the transportation system has been and continues to be a top priority for the entire industry. New technologies and new practices to further improve safety should be supported.

The security of the nation's freight system has changed significantly since the terrorist attacks of September 11, 2001. Because of the complexity of the transportation systems sector, risk considerations encompass a wide range of physical, human, and cyber elements. Recognizing the risk to our nation's transportation system, the Federal Government, in partnership with state and local government and the private sector, has set about addressing security gaps and reducing vulnerabilities to terrorist attacks that could significantly disrupt our national freight system.

Based on the age of our nation's transportation infrastructure and differences in ownership and funding mechanisms across modes, the degree in which safety and security requirements have been implemented into design and regulations aligned varies greatly which impacts the level of reduction in risk across the entire system.

Promote improved safety practices.

Recommendation B1: Encourage safety practices beyond minimum compliance.

Recommendation B2: Support analysis of and, where warranted from a safety and cost/benefit standpoint, a more rapid adoption of, safety technologies including those recommended by the National Transportation Safety Board (NTSB).

Ensure safety and security in the national freight system

Recommendation B3: From an operational perspective, the U.S. DOT should strive to achieve safety and security regulations in such a way as to minimize, where possible the impact on an efficient supply chain.

Recommendation B4: Security and resiliency factors need to be considered and built into transportation infrastructure design and investment decisions.

Recommendation B5: Employ a greater degree of risk-based management in approach to security within our freight transportation systems' operations.



FUNDING

There is a true sense of urgency regarding how our nation will invest in its national freight network. There are many challenges to addressing the funding needs of the freight sector. First, the anticipated insolvency of the Highway Trust Fund increases the competition for scarce funding and reduces the likelihood of expanded funding for freight projects from the HTF. Second, other funding programs or sources such as the Harbor Maintenance Tax need to be fully applied to their intended uses (maintenance of federal navigation channels at authorized and constructed depths and widths). Third, freight projects do not always score well in local, regional or state competitive grant processes. Finally, freight projects can be particularly costly, because they are often located in aging industrial zones where the supporting infrastructure (storm water, utilities) must be extensively upgraded.

Consistent and reliable funding is vital to certainty of project implementation and completion and keeping the national freight system in a state of good repair. It is critical to the nation's global competitiveness and the health of the U.S. economy.

Make Investment in the multi-modal national freight network a national priority.

Recommendation B6: In order to ensure continued technological and innovative improvement in the nation's freight transportation system, any National Freight Policy should recognize that adequate federal funding for research efforts must be provided.

Recommendation B7: Protect the existing Airport Improvement Program (AIP) trust fund grants spending levels and ensure AIP is used only for aviation-related purposes.

Recommendation B8: Create a dedicated fund for multi-modal freight projects. First and last mile segments of regional and national significance must be included in a comprehensive freight funding program to assure freight movement is seamless across jurisdictions, modes, ports and intermodal connectors.

Recommendation B9: Promote consistent funding from Inland Waterway Trust Fund for locks & dams, dredging and other projects.

It is well reported that the aging lock and dam infrastructure on the inland waterways is in dire need of modernization, repairs and maintenance. Future growth will place a greater demand on the performance of the navigable waterway infrastructure and will be a continual barrier until significant investment is provided. It is recommended that proper federal funding from the Inland Waterways Trust Fund be allocated for those locks and dam projects that are already authorized, but have not received appropriations from Congress. Also, operational needs and maintenance of lock and dam facilities must receive proper awareness and attention so that transportation stakeholders can have a greater trust in reliability and dependability of a viable inland waterway network. Due to the lack of consistent funding for operations and maintenance, ensuring a safe and navigable channel for inland waterway transport will continue to be a barrier to product delivery. It is important to have a stable source of funding from the Inland Waterways



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Trust Fund for dredging and maintenance efforts throughout the inland waterway system, so that the Corps can adequately maintain the channels for safe and reliable navigation.

Recommendation B10: The lack of sufficient funding has persistently undercut the timeliness and completeness of freight data.

Recommendation B11: The Shortline Tax Credit (“459”) should be reauthorized permanently (or at least on a 5-year basis) for the efficiency and effective capital deployment for these vital “first, last-mile” freight connectors.



STREAMLINING

There are many procedural and regulatory barriers that impede the efficiency of project development and investment, as well as system operation. Examples include lengthy applications processes that add to project costs, fragmented permitting and approval processes, and restrictions on fund expenditures. Other barriers can delay the adoption of new technologies or products that could improve the efficiency, safety or sustainability of the freight system. In addition, user funded programs that are operated by the Federal Government may involve lengthy scheduling and programming that reduce program efficiency.

Sustainability of the U.S. transport system is a major policy goal. Sustainability, economic competitiveness, and environmental justice are often termed “the three Es”, which are to be pursued together. However, policies and practices to achieve environmental and community goals may provide challenges. For example, delays associated with the environmental review process are associated with escalating project costs and lost opportunities.

The NFAC has identified specific barriers with respect to competitions and applications for federal funding, the project approval process, the National Environmental Policy Act (NEPA) process, spending authority, certification processes, and federal operations. Streamlining these processes and operations will improve the performance of the U.S. freight system by reducing project costs, accelerating implementation, and increasing operational efficiency. NFAC makes the following streamlining recommendations.

Streamline the Federal Process and Other Provisions Related to NEPA and Categorical Exclusions

Recommendation B12: Establish a “One-Stop Shop” Permitting & Compliance Division within U.S.DOT that is empowered to coordinate permitting reviews within U.S. DOT and across other federal agencies to be reportable and accessible via a web-based Dashboard.

The new Division shall be allowed to identify, after consultation with other federal and state governmental and non-governmental stakeholders, those freight projects having national and regional significance to freight mobility. The Secretary should be permitted to give priority consideration to these identified freight projects in coordinating and facilitating the permit review process and advancing project delivery objectives when there is duplicity of processes. For those projects that involve multiple agencies, the Secretary shall designate one lead federal agency or modal Administrator within the Department whom shall serve as the primary point of contact and shall actively monitor and identify the progress of the permitting process. While the NFAC supports adequate staffing and operations funding levels to be included in this proposal so that proper office personnel and operations can fulfill this important role, all attempts should be made to restructure existing resources within U.S. DOT, as practically as it is feasible, to fund the operations of the new Division. Furthermore, this new Division is not intended to create another layer of bureaucracy, but rather an office that can serve to reduce redundant levels across all modal Administrations that could be consolidated or streamlined to enhance efficiency.



Recommendation B13: The application of NEPA regulations should apply as it was originally intended - apply to direct project impacts. The regulations should apply equally to all applicants.

The recent effort to expand the scope of NEPA to include all global impacts of local projects involving select commodities creates an unequal application of the regulation. A current example is Washington State's proposed Bulk Commodity Export Terminal at Cherry Point, where the NEPA review for a proposed Coal transload facility is being expected to review locomotive emissions and other issues from the point of extraction in Montana to the point of combustion in China. The current trend also affects crude oil facilities and could expand to other targeted industries or commodities.

Recommendation B14: Air quality and climate impacts should be considered up front in planning new transportation infrastructure.

The streamlining of environmental permitting should not be allowed to circumvent community concerns, environmental justice issues, or environmental protection.

Recommendation B15: Extend MAP-21 streamlining provisions to pertain to all modal Administrations within U.S. DOT. It should also include other all other federal agencies within the Administration that deal with freight mobility.

Recommendation B16: Impose similar categorical exclusion provisions for all roadway, seaport, waterway, rail, and airport freight-related projects to pertain to all modal Administrations within U.S. DOT. It should also include all other federal agencies within the Administration (e.g., U.S. Army Corps of Engineers).

Recommendation B17: Increase the monetary thresholds annually for Categorical Exclusions (CE) for projects with minor impacts. To keep the thresholds at the defined MAP-21 levels, we recommend allowing adjustments in the thresholds an based on an agreed-upon index (such as the construction cost index) for Categorical Exclusions (CE) for projects with minor impacts.

Recommendation B18: Expand the highway, bridge and grade separation projects that are eligible for no-document Categorical Exclusions in NEPA, known as "section (c) CEs."

Approve current U.S. DOT rule-making proposing to expand no-document CEs to include highway modernization projects (resurfacing, restoration, rehabilitation, reconstruction, adding shoulders or auxiliary lanes), highway safety and traffic improvement projects (including ramp metering control devices and lighting), and bridge replacement and reconstruction projects and highway-rail grade separation projects, unless they have specified impacts, include (1) Acquisition of more than a minor amount of right-of-way or that would result in any commercial or residential displacements; (2) Project requiring a Coast Guard bridge permit or that exceeds a U.S. Army Corps of Engineers nationwide or general permit; (3) "Adverse effect" to historic properties or under the Endangered Species Act; (4) Construction of temporary access, or the



closure of an existing road, bridge, or ramps, that would result in major traffic disruptions or substantial environmental impacts; (5) Changes in access control; or (6) floodplain or Wild and Scenic River encroachment. If a project includes any of the impacts above, a documented CE would need to be prepared, as is currently the case. We recommend limiting technical documentation studies solely to those triggering impacts identified in (1) through (6) above.

Streamline Transportation Investment Generating Economic Recovery (TIGER) Grant Program Applications

Recommendation B19: The Department should rewrite grant applications to be more streamlined so as not to discourage applicants.

The cost to develop a TIGER application or other funding opportunity can be extremely costly and has discouraged applicants from applying. Additionally, a staged review process that requires (only) incremental development of project plans for each approval level so that grant probability can be determined before significant financial commitments are required should be implemented. This could increase participation in the program and provide greater likelihood for attracting a wide variety of candidate projects.

Allow for Self-Certify Right-of-way Acquisitions and Project Plans & Spend-Ahead Provisions

Recommendation B20: Allow the recipients of federal funding to self-certify, at their own risk and responsibility, that their right-of-way acquisitions and project plans meet all federal requirements.

Self-certification permits projects to advance to the construction phase sooner and depending on the complexity of the project, Self-certification permits projects to advance to the construction phase sooner and depending on the complexity of the project, could save up to six months on project delivery. Federal funding will not be granted until the project is deemed to be compliant.

Recommendation B21: Allow for “spend ahead” provisions for projects that are awaiting funding authorizations prior to advancing to the next stage of project planning and delivery.

This would allow eligible projects to begin work at the owner’s risk, but not jeopardize federal reimbursement for this early work once the project has been formally authorized. In other words the project could commence prior to official “date of eligibility.” This could improve project delivery by up to 12 months. Federal funding will not be granted until the project is deemed to be compliant. This would allow “spend ahead” provisions to be consistent in all modes.

Include Personnel and Budget Impacts in Project Approval Processes & Include Multimodal/Intermodal emphasis and give priority in Streamlining Initiative Policy

Recommendation B22: The U.S. DOT should assure that project approvals are not delayed due to personnel transfers and budget cycles at all modal Administration levels.



Recommendation B23: Include Multimodal/Intermodal Emphasis in Project Delivery Policy Declaration.

Title 23 of the U.S. Code 101 provides for the Declaration of Policy and Project Delivery Initiative that in part, establishes policy directives to U.S. DOT for project delivery initiatives, purposes, administration, implementation, and promotes the use of best practices and innovative approaches. While this section is limited primarily to surface transportation projects, multimodal projects should be added to this directive by emphasizing the role intermodal connectors play in freight mobility among all transportation modes and further direct U.S. DOT to give priority for such freight projects that have far reaching freight connectivity benefits to national and global markets.

Streamline processes for certification of new technologies, products or practices

Recommendation B24: The U.S. DOT should streamline the certification process for new products or practices that increase the efficiency or sustainability of the freight system.

Streamline processes for prioritizing, scheduling and implementing dredging projects.

Recommendation B25: Streamline lengthy process for U.S. Army Corps dredging projects; dredge when windows are open and improve dredge disposal process.



HARMONIZATION OF POLICY, REGULATION AND PROGRAMS

Many government agencies have a regulatory responsibility for transportation or freight. Despite the government's best efforts, there are times when regulatory requirements and policy across the modes and industry sectors are not aligned. Consequences include duplicative requirements, additional costs, uncertainty regarding regulatory requirements, and possible distortions across modes or sectors. Now several years removed from implementation of many regulations, policies and programs, the government should consider re-evaluating many of its regulations and programs to identify areas where efficiencies can be gained, costs of programs reduced, redundancy avoided, and regulations and policies harmonized across modes. Recommendations address various aspects of harmonization across planning and operations, as well as application of NEPA. Others address specific problems related to international trade.

Build consistency and certainty into programs, regulation, and policy.

Recommendation B26: Regional freight planning should include collaboration and streamlined interstate policies (Hours of Service, truck weight, tolling, etc.) and procedures to ensure the expedited and unimpeded movement of freight in the aftermath of a made-made or natural disasters.

Recommendation B27: Cross modal security programs, policies and regulations must be harmonized, including areas such as credentialing, to ensure consistency in the system and the seamless unimpeded movement of freight between modes.

Recommendation B28: There needs to be consistency and certainty in regulation across project development; Federal government and States need to have improved communication mechanisms to streamline project delivery and build consistency into regulatory requirements. Transportation projects should have federal and state personnel specifically designated to coordinate adequate communication, efficient problem solving, and timely project delivery.

Facilitate international trade by reducing barriers

Recommendation B29: To accomplish this objective, the U.S. DOT should consider taking one or more of the following actions:

- a. for foreign carriers from countries with which the U.S. has no Open Skies agreement, DOT should announce that it is willing to allow scheduled cargo single plane, international service, whether nonstop or one stop via another U.S. point, between their homeland and U.S. points not served by a regional airport (i.e., DOT should be willing to permit 3rd Freedom rights for service to U.S. regional airports on an extra bilateral basis); priority should be given to those locations at which U.S. Government inspection services are readily available; and
- b. for all foreign carriers, DOT should be willing to allow scheduled cargo single plane service between a large hub U.S. airport and a regional U.S. airport as part of those



carriers' international service to or from their homeland (i.e., DOT should be willing to permit 8th Freedom rights on an extra bilateral basis for service to regional U.S. airports).

- c. In addition, where and as permitted by bilateral agreements, grant 5th and 7th Freedom rights on extra bilateral bases for scheduled cargo service that includes a regional U.S. airport

Recommendation B30: Identify and quantify the reasons for delay occurring at each major U.S. /Mexican rail border crossing.

The Department of Transportation and the Federal Railroad Administration, in cooperation with the U.S. Custom and Border Protection (CBP), the Transportation Security Administration (TSA), and their Mexican Government counterparts, should review procedures currently in place at each rail border crossing to identify and quantify the causes of delay at each location.

Recommendation B31: Bring the necessary stakeholders and government regulators together to develop and prioritize solutions to rail border crossing delays specific to each port of entry with Mexico.

The goal is to harmonize regulation to move traffic safely, securely and efficiently across the border similar to what is being done today with the Canadian crossing.

- a. Following identification and quantification of the unique circumstances causing delay at individual rail border crossings, FRA, the railroads, and the employee representatives of U.S. train crews should review existing waivers and develop a consensus regarding potential revisions to mitigate delays associated with railroad operations. Should these additional measures be found to be ineffective, the U.S. and Mexican Agencies, in cooperation with the affected U.S. and Mexican Railroads and the employee representatives of U.S. and Mexican train crews, should consult and use good faith and best efforts to reach agreement on secondary solutions tailored specifically to mitigating delays associated with railroad operations at individual rail border crossings.
- b. One size does not fit all due to traffic volume, track capacity, inspection capability and technology, operational characteristics, etc. Therefore, each rail border crossing should be viewed individually to determine the most effective and efficient combination of waivers and other secondary mitigation strategies necessary to improve cross border traffic flows.
- c. Accepted secondary mitigation strategies should be prioritized so that issues causing the longest delays are mitigated first, with subsequent mitigations following in order.



DATA, RESEARCH, AND EDUCATION

DATA

Data on freight movements are available in some areas, but not in others (rail, ports), creating significant data gaps. Another challenge is that certain types of data are reported differently depending on the mode of transportation. These significant data gaps make it difficult to fully determine the current condition and performance of the entire freight system.

There is a critical lack of knowledge about modal freight movements. The U.S. DOT relies on a range of models, some partial and proprietary, to estimate domestic movement of international trade, farm-based shipments, pipeline flows, and governmental shipments. It also relies on other models to tie region to region flows to specific routes and facilities. This weakness inhibits the ability to identify critical bottlenecks or other concerns which may adversely impact future freight policies. Additionally, improved data on imports and the movement of empty containers and trailers would facilitate the ability of the U.S. DOT to support efficient strategic multimodal freight flows.

Improve and expand freight data collection to support research, performance monitoring, and system improvements

Recommendation B32: Freight transportation agencies must improve and expand safety data collection and analysis, and ensure that it is compatible and publicly accessible to promote accountability and better safety practices

Recommendation B33: Publicly available data is completely lacking or inadequate for measuring the current conditions and performance of the freight system. Data is reported inconsistently across and within the different modes of freight movement.

Recommendation B34: Multimodal freight flows (origin-destination), which are important inputs for the National Freight Strategic Plan, are not well understood and needs to be addressed by the Department.

Recommendation B35: Data collection needs to be comprehensive, coordinated among federal agencies (especially with the Department of Homeland Security (DHS) (TSA, USCG, CBP)) and complete by including information from all freight infrastructure owners.

Recommendation B36: Strengthen data collection, including multimodal origin-destination freight flows, ports of entry performance, import bottlenecks and the repositioning of empty containers for exports. The U.S. DOT should evaluate the benefit of purchasing 3rd party aggregator data to fill critical gaps.



RESEARCH

Today, the majority of freight research activity is housed in FHWA and hence has a highway focus. There is no freight research program that spans all the modes, yet there are many interdependencies between the modes, and many common challenges that could benefit from research. The one freight research program that was multimodal, NCFRP, was eliminated in MAP-21.

Freight research, like transportation research more generally, is woefully underfunded relative to its importance to the U.S. economy and economic competitiveness. The U.S. is far behind other high income nations in its transportation research investment. The lack of investment will have longer term negative impacts, as innovation in the U.S. falls behind and efficiency gains decline.

Create and invest in a multi-modal freight research program

Recommendation B37: The U.S. DOT should invest in a robust, multimodal federal research program that covers the range of research, from basic (long range, high risk) to research development (short range) to deployment or implementation.

- a. The research program should have as its priority basic and advanced research: long range, high risk research that other entities (States, local governments, private sector) are less well positioned to do.
- b. The research program should include applied research that responds to current problems and is produced in a timely manner. It should include research that generates innovations or new technologies, tests and demonstrations, and evaluations.
- c. The research program should include an active dissemination program to support a rapid path to implementation and broad adoption.
- d. The research program should be agnostic with respect to mode and focus on topics that are cross-cutting across freight industry sectors. It should be housed and managed outside of the modal agencies, for example within the Office of the Secretary of Transportation (OST).

Recommendation B38: The U.S. should support research on high priority national objectives of safety, efficiency and sustainability. The research should include demonstration and deployment of promising technologies. High priority areas include:

- a. Alternative fuels for the freight sector that exceed current Environmental Protection Agency (EPA) standards and meet cost and efficiency requirements of industry, possibly in partnership with DOE.
- b. Better metropolitan and regional freight models, including supply chain based modeling approaches.
- c. Futures forecasting that considers changes in demographics, buyer behavior, manufacturing practices, and other factors that could restructure current freight supply and demand patterns.



- d. Causal factors of accidents and crashes, including driver hours regulation.
- e. **Insert new**

EDUCATION AND TRAINING

Attracting the next generation workforce is a growing challenge in many areas of the freight industry. For a variety of reasons, it is becoming difficult to hire sufficient numbers of workers to replace the aging baby boom generation. In addition, rapid technological change is changing the skill sets and knowledge requirements of many industry jobs. There is a need for both active recruitment of the next generation workforce and training programs to update the skills and capabilities of the current workforce. One of the critical actors in the freight system is the public sector. States operate the highway system, local agencies operate ports and airports, and government at all levels has regulatory authority on various aspects of freight operations. Technology adoption often depends on the technical expertise of the public sector. For example, time savings for truckers from bypassing truck enforcement stations is dependent upon technologies in the public sector that track permits and load data.

Promote workforce development through training and education programs

Recommendation B39: Need to partner with colleges and universities, community colleges, vocational schools, and workforce training programs to promote careers in freight transportation. There is money for training programs with collaboration of chambers of commerce and the education community.



TECHNOLOGY IMPLEMENTATION

Given the potential benefits of technology development, it makes sense to accelerate the process of development and deployment to the extent possible. By taking on some of the early cost (and risk) of technology development, the government makes possible more rapid adoption by the private sector. These early costs are eventually offset by productivity gains and economic growth. Intelligent Transportation Systems (ITS) research has generated many opportunities for freight efficiencies, from sophisticated real-time information systems to automated vehicles. Many of these technologies could be more rapidly scaled up and mainstreamed with federal support. In addition, common standards and policies will be required to facilitate interoperability and integration across modes and sectors.

Facilitate and promote technology implementation through supportive policies

Recommendation B40: The U.S. should invest in a technology research program that promotes technology improvements in the freight sector. Elements of a technology research program would include: 1) interoperability and standards, 2) technologies to facilitate security and fraud inspections; 3) institutional barriers to technology adoption; 4) demonstration and evaluation projects; 5) fuel efficiency; 6) emissions reductions; 7) technologies for better real-time and near-real-time information; 8) asset management technologies.

Recommendation B41: With the recent decision to require Original Equipment Manufacturers to produce vehicles with the ability to be connected, policies and regulation need to be examined in order to take advantage of this emerging technology.

Recommendation B42: Many pilot programs and demonstrations have taken place in recent years. The U.S. should support evaluation of these programs and their outcomes. Results should be widely disseminated so that practitioners can learn from these efforts.



Chapter 2: Recommendations Related to Best Practices for Improving the Performance of the Freight Network

Summary

The national freight strategic plan shall include “best practices for improving the performance of the national freight network”.

The safe and efficient movement of goods on the Nation’s multimodal freight network directly impacts the daily lives of every American. From necessities, such as food and fuel, to the full spectrum of specialized goods, every product consumed in this country is shipped through the Nation’s highway network, airports, railways, ports and waterways. In addition, American manufacturers and businesses rely on the freight network to get their goods to domestic and international markets.

With this Chapter, the recommendations for improving the performance of the national freight network. These recommendations fall under five themes:

1. Streamlining
2. Funding
3. Data
4. Planning
5. Capacity Enhancements/Efficiency

The recommendations of the National Freight Advisory Committee (NFAC) prepared for the Secretary of Transportation for the purpose of improving the performance our national freight system are presented in the following sections.



Recommendations

FUNDING

A strong freight transportation network is critical to the Nation's long-term competitiveness. A continued deterioration in the condition of the Nation's infrastructure will affect the efficiency of goods movement and increase the overall costs associated with freight transportation. Without better management and increased public and private sector investments in the most critical freight infrastructure facilities, our Nation's long-term economic and business competitiveness will suffer.

These recommendations are proposed revisions to federal funding processes and key regulations to enable appropriate federal investments in alternatives to congested roadways, to streamline investments in intermodal freight projects, and to focus limited funds on critical investments.

Recommendation P1: Encourage intermodal freight activity through streamlined investment.

This streamlining process should align Federal and U.S. DOT modal programs (Maritime Administration (MARAD), Federal Highway Administration (FHWA), Federal Railroad Administration (FRA),), Federal Aviation Administration (FAA), and Water Resources Development Act) and their funding criteria so that they can work together more effectively to produce intermodal solutions at ports and airports. These streamlining opportunities include augmenting core U.S. DOT formula programs, expanding funding and access to Transportation Infrastructure Finance and Innovation Act (TIFIA) credit assistance and Railroad Rehabilitation and Improvement Financing (RRIF), and expanding Private Activity Bonds.

This streamlined investment should seek the following outcomes:

- Give flexibility to invest in last mile and first mile projects outside freight gateways.
- Creates incentives to support communities in providing local investments along the multi-modal national freight system. Opportunities include provision of support facilities such as truck parking facilities and leveraging of passenger and freight rail investments.
- Encourage public and private partnerships including multi-jurisdictional actions to improve and harmonize the national freight system and its connectors to shippers and receivers.

Recommendation P2: Revise federal regulations in order to promote alternatives to congested roadways and incentivize the efficient and effective use of available funding. Specifically, expand National Highway System designation to include multiple modes, including domestic and feeder waterborne service routes, thereby increasing funding options.



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Recommendation P3: Address aging infrastructure, bridge weight limitations, accepted rail track; generally poor road pavement conditions within heavy-haul corridors, etc. with a funding for State of Good Repair and Asset Management.

Recommendation P4: Maintain and expand the Federal Section 130 program – funding for grade crossing improvements and separations.



STREAMLINING

The Nation's regulatory system and many procedural barriers often impede the efficiency of project development, investment, and overall freight system operations. These barriers can delay the adoption of new technologies or products that could improve the efficiency, safety or sustainability of the freight system. Streamlining many processes and operations will improve the performance of the U.S. freight system by reducing project costs, accelerating implementation, and increasing operational efficiency.

These recommendations are proposals to encourage innovative project delivery methods, to address specific permitting and project delivery needs for emergency projects, and to develop safety standards to expedite project delivery.

Recommendation P5: Continue to encourage innovative project delivery methods such as design-build by providing incentives to States. Further, U.S. DOT should assess key methods and practices that have led to project acceleration during emergencies and extenuating circumstances and identify opportunities for application to existing programs. Additionally, dredging project completion should be measured when 100 percent of the dredging is complete, not the current practice of measuring when 100 percent of the funding allocation is saturated.

Recommendation P6: The Railroad Rehabilitation and Improvement Financing (RRIF) loan process should include early indications to a potential applicant of potential 'no-go' issues before the applicant spend substantial funds on developing the total application.

Recommendation P7: Develop a list of preapproved "On- Call Contractors" available for emergency dredging.

The U.S. Army Corps cannot respond quickly to dredging needs due to lengthy permitting and procurement processes. Should there be an emergency, the Corps does not have a response team. The Corps should go out to bid or pre-approve on-call dredge contractors who can respond to emergency situations.

Recommendation P8: FHWA's Every Day Counts (EDC) initiative should be applied to all modal Administrations within U.S. DOT.

Since its introduction in 2010, FHWA's Every Day Counts (EDC) initiative has united the collaboration and communication with State DOTs and Metropolitan Planning Organizations (MPO) on efforts toward accelerating project delivery, enhancing safety, and protecting the environment through administrative channels. Clearly, underlying tenants and efforts of the EDC should also be applied the other Administrations (FRA, FAA, etc.) so that streamlining efforts could work in unison.

Recommendation P9: To enhance project delivery, there should be an approved safety and performance standard for smaller, more compact pedestrian gate designs that are suitable for sidewalk environments. FRA should engage in a research and design project to develop the design standard.



DATA, RESEARCH, AND EDUCATION

Data management and utilization is critical for developing freight performance measures of the Nation's freight system. Freight performance measures guide planning, programming, and investment decisions, and help to implement effective operational and infrastructure improvements for both the public and private sectors. The Nation's freight system needs performance measures to assess deficiencies in the freight transportation systems and to improve the efficiency of investments and improvement to the systems.

These recommendations are proposals to promote data and information sharing, to develop a program to study better management of container flows, and to facilitate data agreements with the private sector.

Recommendation P10: The Freight Conditions and Performance Report and the National Freight Strategic Plan should be an interagency shared effort so that information and data sharing across the U.S. DOT agencies is facilitated more easily.

Recommendation P11: Data collection efforts should be tailored to performance measures that are in line with specific outcomes that the Department and Congress wants to obtain with the increased emphasis on the multimodal national freight system.

Recommendation P12: The movement of empty import International Standards Organization (ISO) containers should be studied to address the repositioning of empty containers, including those that return to their point of entry and those that are repositioned for export commodities.

Recommendation P13: U.S. DOT should partner with third party organizations to facilitate data collection agreements with private industry.



PLANNING

The effectiveness of the Nation's planning abilities is crucial for our transportation system. As both the global and the national economies have become increasingly integrated, the planning and delivery of large freight projects are of growing importance, and the process has become more complicated, because it can involve multiple jurisdictions and multiple modes. As the freight system evolves, the planning for the movement of freight and people require well-organized processes, tools and models.

These recommendations are the Committee's attempt to focus federal planning efforts, improve coordination among federal, state, regional and local entities, and coordinate public and private efforts.

Recommendation P14: Develop a comprehensive national freight transportation plan to improve network performance.

In developing the plan, U.S. DOT should take into consideration the following elements:

- a. The need for a multi-modal approach that includes land as well as waterside connections, including navigation channels;
- b. The best approach to improving network performance is the designation of highest priority/critical freight gateways and corridors, not taking a highway centric approach;
- c. The system needs a consideration of end to end freight needs;
- d. International gateways and corridors strategy: The national freight plan must include critical international freight gateways and corridors of national and regional economic significance;
- e. Enhance U.S. competitive position of how freight flows; international bench marking should be part of the plan;
- f. Resiliency is key, being responsive to dynamic freight system;
- g. Support future growth and changes in commerce (i.e., e-commerce.)

Recommendation P15: In the development of a national freight network, U.S. DOT should fund the required development of State Freight Plans that will contribute to the national strategic freight plan: Set up mechanisms to ensure State DOT's interact with all transportation modes, users, regional and multi-state agencies, and MPOs. U.S. DOT should consider streamlining the planning reporting requirements from modal administrations so that multimodal planning is assured.

Recommendation P16: Encourage and support the creation of regional, statewide, and/or multi-state institutions as appropriate with a single mission, the specialized staffing expertise to handle freight projects, and the authority to oversee, finance, and implement key initiatives could be beneficial to the expedient delivery of freight transportation projects.



Recommendation P17: Establish a workgroup of NFAC members with U.S. DOT support to develop a set of recommendations designed to equip State DOT and MPO planners with the training and tools they need to be more effective partners with the private sector freight stakeholders and decision makers.

Critical areas that should be addressed include supply chain issues, multi-modal freight modeling, multi-state corridor, mega region and international freight movements, system sustainability, and data availability. In addition, while 20 year long-range planning is part of the national freight strategic plan, the ability to adapt quickly to changes in market conditions/trends is just as important as planning for the long-term. Identifying ways to incorporate greater flexibility into the planning process should be addressed as well.

Recommendation P18: The U.S. DOT in conjunction with the private sector should provide education and training programs for MPO and State DOT planning staff to expand their understanding of supply chain issues, modeling freight movements, the dynamics of multi-state corridors and the economics of mega regions and international trading patterns, among other issues.



CAPACITY ENHANCEMENTS/EFFICIENCY

The full utilization of the Nation's freight system's capacity and efficiency is the key for a strong future and economic success. Modifications to some existing programs and processes will improve the overall capabilities and effectiveness of the freight system, by making better use of the network, reducing congestion, and increasing border efficiencies.

These recommendations are the NFAC's proposals to expand the current network, create full utilization of the network by promoting off-peak usage, stimulate diversification across modes,(with an emphasis on better utilization of underused modes), reduce congestion on the system by promoting technology implementation that address capacity constraints, and support cross border freight movement efficiencies.

Recommendation P19: Identify and invest in ports of national significance to meet national trade objectives, including increased exports and creating a competitive trade environment.

Recommendation P20: Expand the capacity of the freight system by encouraging the further utilization of marine highways and by increasing the use of off-peak cargo movements, particularly at ports and intermodal facilities.

Recommendation P21: Expedite deployment of next gen technology to relieve air space congestion and reduce delays in air cargo delivery. Air cargo tends to be high value freight and pays a premium for fast and reliable delivery. Delay and uncertainty are serious concerns.

Recommendation P22: Increase efficiencies along the supply chain by promoting electronic communications among all logistics supply chain business segments.

Resources should be allocated towards implementing an adoption strategy for a common communication platform such as the U.S. DOT's Electronic Freight Management (EFM) solution. The adoption of a common communication platform with common standards, as part of a broader open source strategy, will enable the fluid electronic transfer of documents between and within modes, between various logistics providers, and to required government entities (U.S. DOT, Customs and Border Patrol (CBP), Department of Commerce (DOC), etc.).

Recommendation P23: Support programs and policies that improve efficiencies of cross border freight movement without jeopardizing safety. Specifically, border crossing inspection technology should be updated with proven, state-of-the-art technology that will speed up throughput at heavily congested locations.

Recommendation P24: The Department of Homeland Security (DHS) should establish detailed and uniform inspection procedures that use best technology. The DHS should develop better border staffing that is more responsive to freight traffic flows. CBP staffing at border crossings, airports and marine ports, as well as Transportation Security Administration (TSA) staffing at airports, should be increased to support the burgeoning requirements of cargo screening.



Chapter 3: Recommendations Related to Best Practices to Mitigate Community Impacts

Summary

The national freight strategic plan shall include “best practices to mitigate the impacts of freight movement on communities”.

The following set of recommendations has been developed as a way to keep communities safe and healthy while ensuring the efficient flow of freight via all modes of transportation. The recommendations range from very specific to very broad, but the common denominator is the need for government incentives to encourage improved freight planning and the desire to work collaboratively with industry to develop voluntary programs to drive further environmental improvements.

The recommendations have been grouped into the following areas:

1. Safety
2. Environmental Sustainability
3. Funding
4. Harmonization, Standards and Institutional Arrangements
5. Data, Research, Education and Reporting
6. Infrastructure Design
7. Regulation and Enforcement
8. Technology Implementation (Development, Demonstrations, Deployment)

The recommendations of the National Freight Advisory Committee (NFAC) prepared for the Secretary of Transportation for the purpose of mitigating freight movement impacts on communities are presented in the following sections.



Recommendations

SAFETY

The U.S. freight transportation network is an evolving system that changes in response to the U.S. public's transportation and goods movement needs. U.S. DOT should more frequently update safety regulations to account for new information, new technologies, and new strains on our freight network.

Recommendation C1: The NFAC encourages U.S. DOT to move forward with efforts to ensure existing safety regulations are current, and to promulgate new safety regulations, for all modes to mitigate community impacts.

This includes ensuring that existing safety regulations address hazardous materials being safely transported through communities; these safety regulations should reflect current hazardous materials transportation issues, such as the need to require route safety assessments for large quantities of rail tank cars that contain flammables within a single train.

Recommendation C2: U.S. DOT and the modal agencies should adopt zero tolerance for fatalities resulting from the movement of freight as an ultimate vision.

A roadmap focusing on continuous improvement utilizing SMART goals will help narrow the gap between the current state and the ultimate vision. U.S. DOT should establish a workgroup within the NFAC to assist in the development of SMART goals. (SMART – Specific, Measurable, Attainable, Relevant, Time-bound).



ENVIRONMENTAL SUSTAINABILITY

Recognizing the significant contribution of heavy-duty mobile sources to our nation's air quality and climate change challenges, the United States should strive to minimize greenhouse gas and other pollution from freight transportation by working collaboratively with industry to develop voluntary programs and incentives to drive further environmental improvements.

Recommendation C3: In order to address this environmental sustainability challenge, U.S DOT should incentivize holistic, multi-modal freight planning and operational strategies, risk assessment, and collaborative problem solving that involves multiple stakeholders.

This includes:

- a. policies, including grants, that support rapid deployment of verified technological advancements that improve safety, security, health, quality of life, and the environment, as well as, the efficiency of the freight network;
- b. policies that consider how government subsidies affect freight markets and the effect on local, regional, and national competitiveness including land-use, site selection, jobs, and both other directly affected items and externalities;
- c. policies that identify and prioritize projects with performance measures that demonstrate improved safety, security, health, quality of life, and the environment, as well as, the efficiency of the freight network; and
- d. publicly available research, data and tools to promote informed stakeholder engagement.

Encourage implementation of operational strategies that improve efficiency and reduce emissions of the freight system to minimize air quality impacts.



FUNDING

Freight transportation through communities, often called first and last mile transportation, includes both delivery networks and freight corridors between major intermodal connectors. While freight movement along first and last mile connectors is regionally and nationally significant, those connectors do not necessarily benefit the jurisdictions that manage and maintain them. This leads to underinvestment in connectors, resulting in them being in poorer physical condition than other infrastructure, and often increases travel time – which further impacts the communities.

Recommendation C4: In order to help address this issue, we suggest the development of federal programs that prioritize funding of first and last mile connectors of regional and national significance, including both urban and rural connectors.

Potential programs include:

- a. A U.S. DOT discretionary and formula grant program that includes a set-aside for National Highway System first and last mile connector projects. This funding must have broad eligibility, including both rural and urban connectors, as well as non-NHS mileage. The U.S. DOT Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program is a good example of this type of funding. For example, in 2010 the Port of Miami received almost \$23 million (out of about \$47 million) to establish a first and last mile intermodal container rail service. Over the next 20 years, this service will facilitate 6 million first and last mile short-line rail trips between the port and the Hialeah Rail Yard.
- b. A new federal credit program, similar to Transportation Infrastructure Finance and Innovation Act (TIFIA), which is targeted at smaller intermodal / first and last mile connector projects.



HARMONIZATION, STANDARDS AND INSTITUTIONAL ARRANGEMENTS

Freight and passengers share much of the same infrastructure (roads, railroads, airplanes). In metropolitan areas, freight and passengers compete for scarce road and rail capacity. In order to make the best use of our infrastructure, freight and passenger transportation planning should be integrated.

Recommendation C5: The U.S. should encourage integrated freight and passenger transport planning, and encourage investment and operational solutions that maximize utilization of resources while carefully considering local impacts.

This can be accomplished by broadening the focus of freight policy so that it includes all agents involved in supply chain, including shippers and receivers. Encourage collaboration between the freight industry and municipalities to optimize the first and last mile. Require Metropolitan Planning Organization (MPO)s and other regional planning organizations to include a freight component via a freight advisor in their processes and address freight in all short- and long-term plans.



DATA, RESEARCH, EDUCATION AND REPORTING

States, business, and local communities are implementing policies and practices to mitigate the negative community impacts of freight. These efforts represent a very broad range: from loading zone enforcement to constructing grade separated rail/highway crossings to alternative fuel delivery vehicles.

There is no comprehensive repository of these best practice efforts. Often locals look to neighboring cities, or seek information through their professional networks. As a result, local leaders may have limited information on how a given strategy has worked in other places, or may “re-invent the wheel.” If effective practices do exist, it is wasteful to try to solve problems without knowing about effective practices.

Recommendation C6: The freight strategic plan should develop a set of criteria for defining best practices to be shared with freight stakeholders through the establishment of a clearinghouse of freight best practices and a program for disseminating best practices.

Recommendation C7: The Department of Transportation should continue to support the development of best practices toolkits available to rural and urban transportation planners and regulators seeking to reduce first and last mile related congestion, air emissions, and parking issues.

Recommendation C8: The U.S. DOT should support research on high priority national objectives of safety, efficiency and sustainability. The research should include demonstration and deployment of promising technologies.

High priority areas include:

- a. Alternative fuels for the freight sector that exceed current Environmental Protection Agency (EPA) standards and meet cost and efficiency requirements of industry, possibly in partnership with DOE.
- b. Better metropolitan and regional freight models, including supply chain based modeling approaches.
- c. Future forecasting that considers changes in demographics, buyer behavior, manufacturing practices, and other factors that could restructure current freight supply and demand patterns.
- d. **Causal factors of accidents and crashes, including driver hours regulation.**
- e. Evaluate various compensation structures for transportation workers to determine whether there is a detrimental impact on safety.
- f. Work with the States to collect and report data that will allow it to determine the classes of heavy-duty (Class 2b through 8) vehicles (commercial, non-commercial, and exempt) that are involved in fatal and non-fatal crashes.



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- g. The private sector conducts significant research, often in partnership with the public sector. The U.S. should facilitate public/private research efforts, and the implementation of the results of these efforts. Examples from the air transport sector include the CLEEN program aimed at developing more efficient engines and aircraft structures, and the CAAFI program to develop alternative jet fuels.

Recommendation C9: Improve effectiveness of various “whistleblower” act safety reporting protection mechanisms in all modes through improved awareness, education, and encouraging greater labor/management coordination in this area.



INFRASTRUCTURE DESIGN

When designing freight routes, there are many things to take into consideration from infrastructure to turning radii at intersections, adequate horizontal and vertical clearances, as well as bridge and pavement integrity to handle heavy loads. Operationally, signal timing plans on truck routes should account for the trucks' slower acceleration speeds to prevent repeated stopping once up to speed. Optimizing these and other factors improves the performance of the U.S. transportation system for all users.

Recommendation C10: Develop definite first and last mile delivery networks which clearly designate truck routes. New York City has had a designated truck route network for over 20 years - it is modified as needed to reflect changes in land use patterns and to optimize system performance.



REGULATION AND ENFORCEMENT

Transportation through first and last mile corridors is vital to the U.S. economy and commerce. However, while the benefits of transportation through those corridors are national or regional in scope, the negative impacts are most often concentrated locally. Much of the freight transportation infrastructure and land development projects were built without freight transportation in mind. The lack of integrated freight and land use policies can have unintended consequences such as first mile pick-ups and last mile deliveries that operate in congestion, with business inefficiencies, with risk of property damage, and air and noise impacts for residents and businesses.

Policies set by MPOs or local governments in an attempt to reduce the impact of freight transportation through first and last mile corridors often lead to freight system inefficiencies which further contribute to congestion issues and traffic through residential areas.

Freight volumes are anticipated to grow significantly in the future. However, we are confident that innovative planning, appropriate regulations, incentive programs, and the use of technology can help to mitigate any potential negative impacts, while increasing the safety of the system. The proposed recommendations are in this mindset.

Recommendation C11: Use transportation policies and operational best practices such as strategic zoning, street design, building design and comprehensive land use policies that plan for freight activities. The policies include economic development incentives and effective truck route planning to minimize the impacts of first and last mile freight transportation on surrounding communities.

Recommendation C12: Utilize policy best practices such as buffering freight activity centers from population centers. Freight generating land uses can potentially bring great benefits to a region by providing jobs, tax dollars, and proximity of goods to growing populations and businesses.

Planning now for freight transportation associated with this growth will enable freight to fit seamlessly into the community fabric, allowing freight to provide benefits to their region while minimizing adverse impacts to local residents and the environment.

Recommendation C13: Utilize operational best practices to encourage State and local authorities to employ a comprehensive approach to enhancing freight activity in First and Last Mile environments and corridors.

Recommendation C14: Enhance worker safety and training requirements for all freight workers, including wellness and fatigue management. This can be accomplished by supporting scientific and evidence based comprehensive fatigue reduction initiatives to reduce operator and worker fatigue. Further, to protect the health and welfare of transportation workers and those they interact with, regulations can insure effective minimum levels of training are required for all entry-level and new workers required to operate transportation equipment, if not already provided.



TECHNOLOGY IMPLEMENTATION (DEVELOPMENT, DEMONSTRATIONS, DEPLOYMENT)

In the near future, Intelligent Transportation Systems (ITS) will be a crucial element of an urban freight strategy. Today, use of ITS applications at the municipal traffic-management level or for interfacing with local truck drivers is still rather uncommon. There are different categories of ITS applications for transport supervision in an urban environment. The most common applications are automatic road enforcement (plate-reading cameras); real-time information provided by variable message signs; traffic-light management; and electronic toll collection. Many other types of applications exist but are not widely used yet, such as car-to-car or car-to-infrastructure communications.

GPS and other mapping GIS technology is not built with first and last mile delivery vehicles and trucks in mind. This leads to these vehicles traveling through residential areas or getting stuck outside low tunnels and over-passes. These recommendations include the development of two systems to improve the movement of freight in and around communities.

Recommendation C15: Expand the use of Intelligent Transportation Systems, technology, and innovation to improve the flow of freight.

Recommendation C16: Use technological solutions to address truck parking. There are technology companies that provide information regarding parking availability, reservation system, cashless payment and navigation information directly to the driver using smart phone technology.

Recommendation C17: Promote adoption of advanced technologies and compliance methods that support and encourage ideal workforce safety practices.

Examples include:

- a. Expand the use of effective technologies and methods for improving pre-employment screening of prospective new hires for substance and alcohol abuse problems, untreated mental illness, and untreated medical conditions that can cause instant incapacitation.
- b. Promote the utilization of advanced compliance methods such as electronic logs, speed limiters, and telemetric monitoring, and establish a drug and alcohol clearinghouse for operators of all modes.
- c. Improve pre-employment background checks to reduce security risks to the transportation network. Causal factors of accidents and crashes, including driver hours regulation.



Appendix A: Minority Report

As per the Bylaws of the National Freight Advisory Committee (NFAC), “if consensus is not truly achieved, the Secretary shall be so advised and each viewpoint will be documented and submitted.”

Below is an additional recommendation that achieved consensus at the Subcommittee level but not by the full NFAC. It was requested by the Subcommittee that the recommendations be included “as an additional viewpoint”.

The recommendations below were discussed as part of *Assessment of Barriers and Best Practices to Mitigate Community Impacts*.

Subcommittee Recommendation: Remove financial disincentives to safety improvements by requiring that all modes are required to have adequate financial responsibility.

Subcommittee Recommendation: Transportation workers should be paid for all work performed (discussed as part of recommendations related to prioritize worker health and safety).