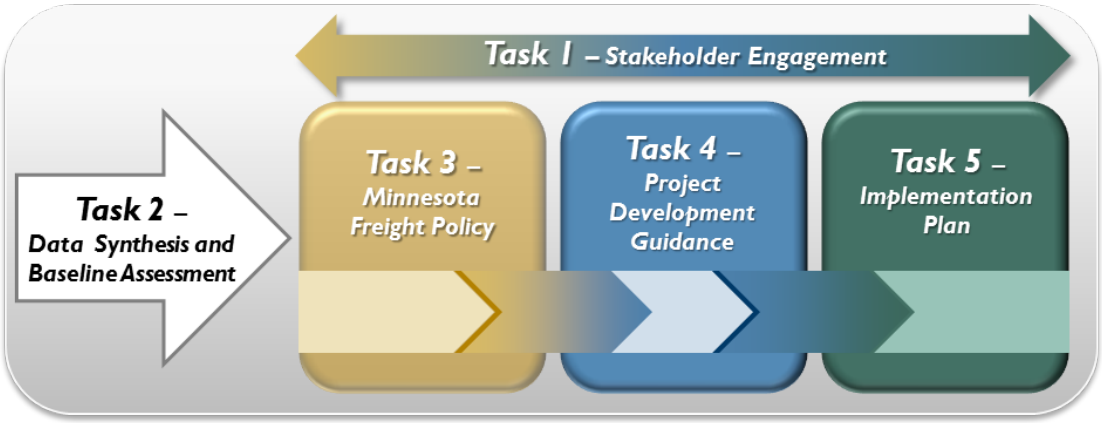
Minnesota Statewide Freight System Plan - Work Plan

Overview of Tasks and Deliverables

The CS team will organize and conduct the work of the study in five tasks, shown in **Figure 1**. Each of these tasks is described in more detail in the following section, and each will result in standalone technical documents that can be combined at the end of the project to form the Minnesota Statewide Freight System Plan. The Plan products will contain a "**Freight Action Agenda**" for the State and outline how MnDOT and public- and private-sector freight stakeholders should move forward in freight planning, investment and operations.

Figure 1 Overview of Plan Tasks



- **Task 1-Stakeholder Engagement**. This task will build on District 8's Manufacturing Study, which focused on manufacturing and agricultural businesses and incorporated/integrated the Regional Development Commissions (RDCs) into this engagement process. We will broaden the focus to include other business categories (e.g., the timber and mining industry in District 1 and businesses such as Crystal Sugar, Artic Cat, Polaris, and Marvin Windows in Districts 2 and 4). We will employ a variety methods to gather feedback (e.g. one-on-one meetings, a freight summit, online survey, etc.). The goals of these interactions will be to begin a dialog allowing the team to listen for physical and operational issues with respect to transportation and how MnDOT can assist in helping industries succeed and address these issues. This outreach strategy will not only serve to enhance MnDOT's understanding of critical issues facing businesses, but it will begin to develop a list of needs that can be prioritized.
- **Task 2-Data Synthesis and Baseline Assessment.** Significant effort has already been spent by MnDOT and other state partners to develop statewide and regional plans and studies and assess available freight data. The focus of this Minnesota Statewide Freight System Plan is to create new, useful information that builds on past efforts and enables MnDOT to move forward with freight system planning, programming, construction, and operations. This task will quickly compile what is already known about Minnesota's goods movement

trends, needs and issues; provide an inventory of the goods movement system based on available data; and begin to establish the economic importance of the system.

- **Task 3-Minnesota Freight Policy**. This task will establish a freight system vision and multimodal transportation goals and policies that will contribute to increasing Minnesota jobs, improving economic competitiveness, and enhancing quality of life. Development of these components will be closely coordinated with Minnesota GO, the Statewide Multimodal Transportation Plan, the Minnesota State Highway Investment Plan, as well as through guidance from the Plan Steering Committee.
- **Task 4-Project Development Guidance**. This task identifies freight system needs, issues and opportunities and categorizes them based on mode, type, geography and other features. Compelling freight-specific performance measures developed in this task can be used to identify chokepoints and other capital investments. Operational needs will also be considered in the business context; as an example, Daktronics in Redwood Falls must use roadways with smooth pavement so their electronic components are not damage in transit. Minnesota's Primary Freight Network—the key, multimodal infrastructure elements that are conduits for the State's economy will also be defined as part of this task.
- **Task 5-Implementation Plan.** This Plan will document for MnDOT, elected officials, taxpayers and voters, and the general public the value of freight transportation investments to the State. In this task a "Freight Action Agenda" will be formed comprising a range of strategies MnDOT and other Minnesota freight stakeholders should act on in the near-term. The Agenda will include physical, operational and policy actions. Low-cost "freight" projects and operational strategies (e.g., addition of turn lanes at intersections, snowplowing priorities and frequencies) that MnDOT can quickly pursue will be highlighted so that the responsiveness of government to business needs can be shown. This task will position Minnesota to capitalize on higher Federal matching funds stemming from MAP-21, which rewards states that develop comprehensive State Freight Plans and identify specific freight projects for targeted funding.

Technical Approach

Task 0—Project Management

The objective of this task is to provide overall project management to ensure the Minnesota Statewide Freight System Plan remains on time, on budget, and meets both client and stakeholder needs. Our approach is to proactively manage this project and to keep an open stream of communication between the Cambridge Systematics (CS) team and MnDOT's Project Manager in order to respond to both the internal and external requests that arise on a day-to-day basis. A Project Management Plan (PMP) will be developed and presented in a manner that ensures the methodology and goals of this study address a transparent, open, unbiased, data-driven, and technically robust analysis of the relevant issues. The PMP will be a primary tool used by the CS Project Manager, Erika Witzke, to ensure personnel assignments, budget, and timelines are met. The PMP will include:

- Description of CS team organization, responsibilities and contact information;
- Identification of the level of involvement of MnDOT in the project, as well as any other services to be provided by MnDOT;
- Project scope of services and related timeline;
- Project budget by task;
- Tentative project management meetings and deliverable dates; and
- Quality Assurance/Quality Control (QA/QC) protocols.

As part of CS' project management methodology, Ms. Witzke will convene monthly progress meetings with MnDOT's Project Manager and other key staff, as appropriate. These meetings may be more frequent during the project kick-off (e.g. every two-weeks), or as tasks and technical issues require more frequent discussion. Effort will be made to have a CS team member present at most meetings, with any remaining team members participating via conference call. At these meetings, Ms. Witzke will report on progress of active work items, discuss new and outstanding issues to be tracked, and, if necessary, discuss issue escalation.

Task 0 Deliverables:

- Project Management Plan;
- Kickoff meeting and monthly project management meetings; and
- Submission of monthly progress reports and invoices.

Task 1—Stakeholder Engagement

The objective of this task is to develop and execute an outreach and engagement plan to involve freight decision makers and stakeholders in the development of the Plan. Much like the District 8 Manufacturing Study, we want to hear from industry, shippers/receivers, carriers, third-party logistics companies, and others about freight system issues, needs, and opportunities in order to establish a baseline for investment decision-making. At the project outset we will develop a Communications Plan (CP) in accordance with MnDOT's *Hear Every Voice* guidance to facilitate an open, proactive process for involving public and stakeholder groups in development of the Plan. The CP will incorporate specific techniques, target audiences/key stakeholders, intended messages, and timing relative to milestones within the greater project schedule. The CP will be a living document that will be revisited and updated at key project milestones. To engage freight decision-makers and stakeholders in the planning process, we propose the following elements:

- **Advisory Committee.** The CP will outline the structure and purpose of project committees, notably the formation of a multidisciplinary Advisory Committee. The Advisory Committee will meet three times throughout the plan development process; early in the study to introduce the Committee to the team and scope and confirm the Plan goals and approach, and throughout Plan development to provide high-level policy guidance on issues and strategies as well as feedback on major findings and documents. The Advisory Committee will consist of high-level MnDOT policy makers, along with a few key external stakeholders such as the Minnesota Freight Advisory Committee (MFAC) Chair, the Minnesota Department of Employment and Economic Development (DEED), and the Mid-America Freight Coalition (MAFC).
- **Technical Team.** The Technical Team will consist of various MnDOT functional groups and district representatives, along with some key external partners such as Metropolitan Council, Regional Development Commissions, FHWA, etc. The purpose of the Technical Team is to provide guidance and review of draft and final policies, strategies and performance metrics associated to the development of the Plan, and to facilitate coordination and partnership in implementing future freight projects. The Technical Team will meet 4 times throughout the planning process.
- **Dynamic Work Groups.** Up to four ad hoc work groups will be assembled to focus on specific topics such as regulatory issues, freight project implementation, performance measurement, and others. Each work group will review current research and reports relevant to the topic, identify data or policy gaps/deficiencies, and develop recommendations for the Technical Team for how to use the data moving forward. Each work group will meet up to two times (8 meetings total). Work Group activities and meetings will be accomplished through online collaboration, as needed.
- **Industry Meetings.** The CS team will facilitate up to 8 meetings with individual high-level industry leaders throughout the State to discuss needs and issues specific to their business and important to Plan development. It is anticipated that these one-on one discussions with freight stakeholders will produce the most informative results. This Plan will also utilize stakeholder interview summaries from the District 8 Study, and the two new, similar market research efforts on-going in other MnDOT Districts.

- **Freight Summit**. A half-day freight summit will be coordinated as an interactive workshop for freight policy makers, industry leaders, and operators. The CS team will facilitate, coordinate, and prepare materials in coordination with MnDOT. It is anticipated the summit will be held during the first half of Plan development, to facilitate information-gathering and establish priorities that will guide the effort. The summit will be held in a venue adequate for a large number of attendees, with flexibility for a large group presentation in addition to smaller breakout groups for focused discussion and interactive input. Use of online forums to engage remote participants will also be investigated (assuming MnDOT will provide technology and staffing to set up). The freight summit could replace an MFAC meeting and/or be co-sponsored by MFAC.
- **Freight Stakeholder List.** Freight stakeholders—those with specific interests and stakes in Minnesota's economic future—will be critical partners in this planning process. Through our team's previous experience on MnDOT planning studies, the Freight Office's relationships with organizations such as MFAC, the Midwest Shippers Association and various freight coalitions, we will build a comprehensive freight stakeholder list. The extensive interview work done as part of the District 8 Study will also serve as a source of contact information.
- **Online Engagement/Surveys.**
  - **General Engagement.** Throughout Plan development the CS team will invite contacts from the Freight Stakeholder List to engage in online activities, and to provide feedback on Plan elements. In addition, project updates, requests for information, meeting notices, and survey links will be distributed through social media and other professional networks (e.g., LinkedIn, MnDOT Facebook and Twitter pages, MFAC, MnDOT project email list, etc.)
  - **MetroQuest.** A broad on-line engagement/education program will also be coordinated through the use of MetroQuest, an interactive public involvement tool that can be integrated into MnDOT's freight web site or sent as a separate online link. Through our teaming relationship on past projects, we know that MetroQuest will facilitate the receipt of feedback from a larger audience than is typically achieved using traditional public involvement methods. MetroQuest allows participants to add points to maps, rank priorities, and see the tradeoffs of different freight management strategies; it also manages the responses in an easy-to-organize format. We will utilize MetroQuest early in the process to gain input from freight stakeholders across the State, inform our technical work, and provide feedback to the Steering Committee (Alternately, the Freight Summit could be used in place of this first MetroQuest round). We will utilize MetroQuest a second time, once draft freight strategies are developed, to help rank and review various strategies with stakeholders. Use of MetroQuest is anticipated to be limited to specific freight stakeholders and freight groups.
  - **Survey to Bordering States and Provinces.** We will create a survey using SurveyMonkey which will be distributed to neighboring states and Canadian provinces, modeled after the survey created for the North Dakota Freight Plan.
- **Public Open Houses – Statewide In Districts.** After initial data collection is complete and initial ideas are composed, a public open house will be held in each MnDOT district, offering to the public and stakeholders the opportunity to review the status and

development of the draft plan and to provide input. A second round of open houses will be conducted after the Plan is complete, and to share final recommendations. It is anticipated that MnDOT will provide staffing for these open houses, with the CS team providing support by way of preparing display boards (up to 10), one PowerPoint presentation, press release in each area (in coordination with MnDOT Communications Office), online notifications, and one summary handout that can be reproduced for all meetings. An Outreach Tool-kit will provide additional supporting information to this MnDOT led public involvement effort.

- **Outreach Tool-kit**. The CS team will create presentation tools for use by MnDOT staff as part of a speakers bureau (and other groups such as Economic Development Authorities and RDCs) in support of additional outreach efforts.
  - **About the Plan Video.** The CS team will create a short video about the plan using Prezi software. Later in the planning process, a second/amended video will be created to illustrate final plan goals and strategies, for future use by MnDOT in building partnerships and implementing freight projects.
  - **Educational Minnesota Freight Handout.** What is a freight plan? What does it accomplish? What can qualify as a "freight" project? What are the benefits of investing in the freight system? These are all questions that will be answered in a "freight facts flyer" intended to inform and educate the general public on the Plan, but also on how investing in many types of projects (e.g., detour planning, pavement maintenance activities, traveler information, etc.) can benefit both freight and passengers, alike. We will prepare a graphically appealing flyer for hard copy print and posting on the web during the planning process. We will also provide MnDOT with a print-quality PDF and original design files for use beyond the planning process.

Task 1 Deliverables:

- Communications Plan that outlines the shared outreach approach and activities, and distinguishes between roles for the CS team and for MnDOT.
- Prepare for, coordinate and facilitate three (3) Advisory Committee meetings. Prepare summary information.
- Prepare for, coordinate and facilitate four (4) Technical Team meetings. Prepare summary information.
- Prepare for, coordinate and facilitate up to eight (8) Dynamic Work Group meetings.
- Prepare for, coordinate and facilitate up to eight one-on-one meetings with key Minnesota industries or companies.
- Outline content and provide overall direction for a MnDOT coordinated freight summit of public- and private freight stakeholders.
- Comprehensive freight stakeholders list.
- Project information, status updates and other content for MnDOT to post on their Statewide Freight System Plan project website.

- Design, content development and distribution of broad stakeholder engagement program through the use of MetroQuest (up to two rounds of MetroQuest use).
- Design, content development and distribution of SurveyMonkey survey to Minnesota's neighboring States and Provinces.
- Design and content development of materials to support MnDOT-led outreach efforts, including an "Outreach Tool-kit" that will be updated once during the Plan development and will contain a Prezi-based video and educational handout. Additional materials will be developed to support 2 rounds of MnDOT-led open houses, one during and one after Plan development, including display boards (up to 10), PowerPoint presentation, press releases, online notifications, and one summary handout that can be reproduced for all meetings.

Task 2—Data Synthesis and Baseline Assessment

The objective of this task is to collect and synthesize a variety of Minnesota-specific resources while leveraging existing datasets. This task builds on the numerous available freight plans, studies, and data sets that are available through national sources and the State of Minnesota to establish a baseline for subsequent Plan tasks. It also includes establishing a repository of freight studies conducted at the statewide and regional levels. Subtasks in this Task include:

Subtask 2.1—Policy, Plan, and Project Synthesis

We will review existing and prior studies, policies, and plans to understand what is already known about critical issues involving goods movement in Minnesota and what strategies and projects have already been proposed. The CS team will consolidate the findings from recent freight-related plans and studies (e.g., 2005 Statewide Freight Plan, 2010 Comprehensive Minnesota Passenger and Freight Rail Plan, Statewide Ports and Waterways Plan and 2013 Freight Scenario Planning Workshop, etc.). For each plan or study, the CS team will extract the key issues, what was driving the issues (e.g., growth in international trade leading to access needs for the Port of Duluth), and the solutions that were proposed. This task will help identify projects that may be candidates for the implementation component (Task 5). The review of past study findings will also identify gaps that should be the focus of new data collection (in particular, stakeholder outreach) as part of this Plan.

Subtask 2.2—Economic Context of Freight System Planning

Developing this Plan gives MnDOT an opportunity to better understand how mode-specific issues and challenges combine to affect the entire freight system's performance. It will enable MnDOT to recognize which economic sectors are most impacted by freight mobility issues, what benefits these sectors bring to the economy (in terms of jobs and income), how different aspects of freight mobility influence costs for these businesses, and how these costs affect the ability of the State to attract and retain key industries. In this subtask we will tell the story of how Minnesota's economy and key industries are linked to the transportation system through a combination of text and rich graphics. Focus will be placed on telling the "freight story" and what drives growth in each of Minnesota's metro regions, and will include:

- **Describe Existing Economic and Demographic Characteristics**, including employment, output, and population, supplemented with information on retail sales, labor force characteristics and household data—each of which is important for understanding "drivers" of future economic activity—as available.
- **Identify Major and Emerging Industries** that are driving Minnesota's economy and its future growth. We will also identify freight-dependent industries that exhibit declining growth or are maintaining a status-quo.
- **Describe the Importance of Transportation to Key Industries**. It is crucial to understand how major and emerging industries use the transportation system. The future competitiveness of many of the State's major and emerging industries in the global marketplace will require an integrated freight transportation system with strengths in all modes— airports for moving high-tech goods, waterways and railroads for handling bulk shipments or intermodal containers, and highways for serving distribution centers and warehouses. More precisely understanding how the existing transportation system facilitates or hinders freight movements associated with key Minnesota industries will help us identify chokepoints and bottlenecks that will feed into the needs and issues analysis to be conducted as part of Task 4.
- **Describe Key Freight Trends**, including major national and global supply chain and logistics trends that may impact goods movement in Minnesota (e.g., oil shale exploration in North Dakota, expansion of the Panama Canal, "near shoring," and other trends). Freight movements affecting Minnesota are increasingly national and global in scope and are sensitive to market forces, as well as the decisions of supply chain professionals both within and outside the State. The impacts of these decisions, however, are often felt locally in the form of increased congestion at intermodal access points and gateways and increased volumes on highway and rail corridors. During our Task 1 outreach, we will conduct interviews with key Minnesota industries to understand system performance needs (e.g., importance of cost, reliability); modal usage; growth prospects; changing national/ international trade patterns; and the locations and severity of chokepoints or bottlenecks that are affecting freight efficiency.

Subtask 2.3—Freight System Assets and Use

This subtask will build on information already developed at the state and regional levels through previous MnDOT work and FHWA Freight Analysis Framework (FAF) data on commodity flows to sketch out a picture of current and future freight flows. The CS team will:

- **Produce a current inventory** of Minnesota's highways, port facilities, major distribution centers, air cargo facilities, rail facilities, and waterborne system elements using information readily at hand. The profile will include maps of the facilities and descriptions of their key attributes (e.g., traffic volumes, capacity, types of commodities moved, and intermodal connections), as available. This task will also begin the process of highlighting routes/ facilities that serve energy development, mining, agriculture, and timber production areas. Data for the inventory will be drawn from the team and MnDOT's library of geographic information systems (GIS) files, gathered from relevant prior studies and sources. These include truck counts; train volume data, and rail at-grade crossing data; data from the Ports

and Waterway System Plan; safety data sources; and a variety of other local and national data sets.

- **Profile current and future freight system demand** using data from the FAF to describe freight transportation demands affecting Minnesota by mode, commodity classification, and origin/destination movements. The base year for the study will be 2011 and the projection year will be 2040. While the FAF version 3.4 (FAF3.4) provides current and future multimodal freight demand information, it does have some geographic shortcomings in Minnesota, e.g., the State is divided into just two regions—one representing the greater Minneapolis-St. Paul region, and the other the remainder of the State. However, this data source will be sufficient for the CS team to assess which freight flows are growing and declining, and will be supplemented by stakeholder interviews. CS has established a straight-forward process to disaggregate FAF data to the county-level. This data will re-aggregated to be presented at the District level, so each will have an understanding of the freight flows within their boundaries.

Subtask 2.4—Existing Institutional Structure

This subtask will articulate MnDOT's existing institutional structures that impact freight, including how freight-related decisions are made and how projects are funded. This task will also continue the on-going discussion related to freight project definition, and explore distinguishing characteristics between a "freight project" and a project that provides benefits to goods movement (as well as provides other benefits). The CS team will use team member SRF's, *Integrating Freight in Statewide Planning and Programming* as a starting point to articulate how this freight plan must be consistent with and have an explicit connection with Minnesota GO and relevant planning efforts, the Statewide Multimodal Transportation Plan and the Minnesota State Highway Investment Plan (MnSHIP).

- We will document current grant and loan programs and funding mechanisms that are available for freight-related projects, including those available through MnDOT, as well as through other Minnesota State agencies and jurisdictions. This will include descriptions of any statutory and constitutional constraints on freight-related investments and policies, such as prohibitions on spending State funds for rail infrastructure.
- We will present the current evaluation processes MnDOT uses to select projects, and articulate the extent to which freight is reflected in those evaluations.
- We will document the freight system stakeholders (institutions) in Minnesota, their jurisdiction and activities and how MnDOT interfaces with each, including private transportation infrastructure owners, such as railroads, terminals, pipelines, and freight transfer facilities, and state, multistate, and regional freight planning partners.

Task 2 Deliverables:

- All Task 2 subtask findings will be consolidated into a single, graphic rich technical document that describes the drivers of freight demand in Minnesota (by District) today, and how that may change in the future. This will include an overview of Minnesota's key freight-generating industries and how they contribute to the State's economic growth. The document will describe the actions MnDOT has taken in the past regarding freight planning and investment and articulate the challenges to be overcome in the future.

Task 3—Minnesota Freight Policy

The objective of this task is to develop a Vision Statement for the freight system in Minnesota, identify strategic goals, and craft supporting policies that MnDOT and its public- and private-sector freight partners can act on.

Our approach to this task uses an iterative process to develop these policy components in coordination with the Advisory Committee and Technical Team. The Vision Statement will describe what the freight system will look like in the future, taking into account the multimodal nature of the freight network, and recognizing that it is part of Minnesota's larger transportation system. The strategic goals and policies will respond to current needs and create a framework for future freight system investment.

We will establish a Vision Statement, strategic goals, and policies using a base understanding of freight system assets, how the system is used to today, its condition and performance, and how the State makes freight investment decisions. This task runs through a substantial part of this study, including technical and outreach activities, to ensure that MnDOT and all interested parties are provided all resources for establishing these guiding elements. The Minnesota Statewide Freight System Plan Vision Statement and strategic goals will be the starting point for identifying the State's priorities in the Task 5 "Freight Action Plan." These strategies will circle back to be used as the vehicle by which MnDOT and its freight system partners can mobilize to achieve the Vision Statement.

Unique to the freight system is that it does not have its own funding resources (for the most part), requiring freight priorities to be integrated into the rest of MnDOT's priorities. As a result, freight is but one of the elements or decision factors among many. This task will establish that context. All elements of this task will be closely coordinated with Minnesota's overarching vision and goals (from Minnesota GO, the MnSHIP and the long-range transportation plan). This task will also reflect U.S. DOTs National Strategic Freight Goals, and put policies and strategies in place to ensure that the results of this Minnesota Statewide Freight System Plan will improve Minnesota's ability to meet those goals.

Task 3 Deliverables:

- The Task 3 process and rationale used to develop the Vision Statement, strategic goals and supporting policies for the Statewide Freight System Plan will be presented in a technical document. The Vision Statement, strategic goals and supporting policies will reside in the Task 3 technical document, as well as be integrated into Task 5 – Implementation Plan.

Task 4—Project Development Guidance

The objective of this task is to identify measures to assess the condition and performance of Minnesota's freight transportation system, identify the critical needs, issues and opportunities of the system, and articulate Minnesota's Primary Freight Network.

The subtasks outlined will provide the basis for the development of the long-range components of the Statewide Freight System Plan. The impacts of goods movement will be assessed in terms of a set of multimodal freight performance measures in order to determine gaps, deficiencies, and issues that need to be addressed through development of strategies, projects, and policies in subsequent tasks. Subtasks in this Task include:

Subtask 4.1—Condition and Performance of the Freight System, Measures

The CS team will develop performance measures and targets to aid MnDOT in assessing the existing condition and performance of freight system (focusing on the highway system), and identifying possible problem areas. Performance measures will be developed to reflect the key goods movement issues in Minnesota and ideally one measure will be identified to align with each Plan goal. The CS team will ensure that performance measures are consistent with the U.S. DOT's MAP-21 guidance and consistent with the approaches that are being used by MnDOT to evaluate and prioritize the broader range of transportation projects in the State (e.g., District Work Plans and STIP Updates). It is anticipated that the performance measures will be classified in four broad categories to align with general Plan goals:

- ***Mobility***. Travel times, travel time reliability and cost between critical goods movement centers;
- ***Infrastructure.*** Truck and general delay; volume/capacity ratios; accessibility to key goods movement facilities; network reliability; modal alternatives; and system redundancy;
- ***Economic.*** Transport and total logistics costs; impacts on job creation or retention; and benefit/cost ratio; and
- ***Environment and Community Impacts.*** Emissions; truck involved crashes and other incidents involving goods movement; noise impacts; and environmental justice concerns.

As part of this subtask, the CS team will identify the data sources and tools available to conduct performance evaluations using the defined measures, and conduct the evaluations. It is anticipated that not all data sources will be available for measurement, however, where data is available, targets will be assessed and the resultant performance evaluations will feed into subsequent Plan tasks. It is expected that this activity will employ the "dynamic work group" concept, and engage the broader performance measure interests within MnDOT prior to formalizing/using performance measures.

Subtask 4.2—Freight System Needs, Issues and Opportunities

The CS team will identify needs, issues, and opportunities with both a "bottom up" and "top down" approach. Interviews with key stakeholders and with various users of the freight system will be conducted in Task 1 as a "bottom up" approach to identifying issues and deficiencies. The CS team will also build on recent plans (e.g., regional freight studies, State Rail Plan, etc.) that include detailed analyses to identify capacity constraints, bottlenecks, and operational concerns—these will have been identified in Task 2. A quantitative "top down" approach will use measures moved forward from subtask 4.1 to identify potential system hot spots of activity and bottlenecks, as the data are available. The needs and issues will be arrayed in a matrix and mapped in order to consolidate all known information in a single place. A few features of the matrix/map could include:

- ***System function.*** Identification of the system function the issue is impacting, such as a global gateway, interregional corridor, last-mile connector, urban systems (or others to be determined) or if the issue is one of an institutional, community of environmental nature.
- ***Mode.*** Freight mode that the issue impacts, including roadway, rail, maritime, aviation, or multimodal (i.e., affecting more than one mode).
- ***Type of Issue.*** Whether the issue is one that is physical, operational, or institutional/policy in nature.
- ***MnDOT District.*** Area where issue is most prevalent to begin understanding where different types of issues are concentrated.

This process will help Minnesota identify areas where the State may not meet (proposed) Plan goals and can help generate a prioritized list of existing/future problem areas to be addressed. This task will also cull through the variety of quantitative and stakeholder data to identify strengths of Minnesota's freight system (e.g., why have key industries located in the State), and opportunities (e.g., what freight system improvements can make key industries more efficient?) where the State can capitalize on those strengths.

Subtask 4.3—Identification of the Statewide Primary Freight Network

Formal designation of a multimodal Statewide Primary Freight Network (PFN)—the collection of hubs, corridors, facilities, and intermodal connectors that contribute most to statewide freight mobility, economic competitiveness, and quality of life—will have two important benefits for Minnesota. First, MnDOT can focus investments and system performance evaluations on the most critical portions of the statewide freight system. Second, it will help MnDOT and its District Offices better understand which portions of their systems are most critical to statewide freight mobility and economic competiveness and encourage them identify, evaluate, and implement freight-specific improvement projects where they might not have in the past.

The U.S. DOT's draft 27,000-mile PFN incorporates only portions of the Interstate System in the greater Twin Cities region. Those segments providing interstate connectivity with neighbors like Wisconsin and North Dakota, conduits of international commerce at International Falls and I-35 linking the Port of Duluth to the south were not included. As critical segments were missing when looking through the Federal lens, the freight system assets identified in Task 2 and performance data analyzed Task 4 will be used to identify the Minnesota statewide primary freight network. The Interregional Corridor designation for freight that SRF compiled for MnDOT will be used as a starting point for designation; this is also similar to Minnesota's "Corridors of Commerce." Additionally, CS has been working with MnDOT on developing an overdimensional freight network that provides cross jurisdictional connectivity; combined with stakeholder feedback this task will identify critical freight routes for key Minnesota commodities and mining, agricultural, and energy industries.

Task 4 Deliverables:

- All Task 4 subtask findings will be consolidated into a single, graphic rich technical document that describes the strategic, multimodal, freight system components in Minnesota, the condition and performance of those components (focused on the highway

system), and Minnesota's freight system needs, issues, bottlenecks (weaknesses) and opportunities (strengths).

Task 5—Implementation Plan

The objective of this task is to develop a "Freight Action Agenda" for Minnesota to integrate, invest and operationalize the freight system and decision-making within the DOT, and ultimately serve as an improvement strategy for the State.

This Plan presents an opportunity for MnDOT's Freight Office to become more integrated with other Offices within MnDOT and the overall project development, project prioritization, and funding processes. While there currently is no dedicated funding source for "freight projects," it can be argued that almost any transportation improvement project has some benefit to freight. Better integrating the Freight Office with other MnDOT Offices (e.g., Safety, Geometric, Bridge, Pavement, etc.) will ensure that freight is being properly accounted for and considered in how the transportation system is designed and operated. In addition to Central Office staff, increased communications with the Districts would enhance the project prioritization process and also serve as an opportunity to eliminate potential freight bottlenecks or other significant freight issues that may exist. A very good example of this integration occurred about a year ago when staff in District 4 consulted with the Freight Office to determine whether or not a proposed roundabout on a supplemental freight route would be an impediment to large trucks. In the past, this type of interaction was not routine.

Subtask 5.1—Strategy Identification

Strategies (i.e., actions the State and its freight partners can take) will be at the core of the Implementation Plan and we will focus specifically on those implementation strategies that can be acted upon. In this subtask the needs and issues identified in Task 4 will be translated into strategies. Like the needs and issues identification, strategies will be categorized as infrastructure projects, operational improvements, or freight policies or programs.

We will assemble multimodal "solutions packages" that logically group physical, operational, and policy strategies, programs and projects in ways that address systemwide concerns and optimize the efficiency of potential investments. For example, one solution package might include targeted geometric improvements on important trade corridors, operational technology or intelligent transportation systems (ITS) to improve access and reliability, and policy/ institutional strategies to allow MnDOT to be more responsive to changing goods movement, logistics, or economic conditions within its planning and programming process, among others. This is a process we used in the Vermont State Freight Plan.

Subtask 5.2—Strategy Evaluation and Expected Outcomes

Freight system investments increasingly involve partnerships between different public-sector jurisdictions, private-sector entities, or combinations of the two. These partnerships require analytical tools and techniques to describe the nature and allocation of freight benefits and costs and how they accrue across modal, jurisdictional, and interest (public/private) boundaries. For

each strategy a qualitative (and quantitative, as data are available) assessment will be conducted to determine the level of benefits to each stakeholder group. Doing this as part of this Plan means MnDOT can more explicitly identify and quantify public and private benefits, which are critical in building support for freight investments among transportation policy-makers, elected officials, taxpayers and voters, and the public. It also means more effectively opening the door to fact-based, cost-sharing discussions, and other implementation strategies with the private-sector freight community.

Subtask 5.3—Freight Action Agenda

This final Plan subtask will outline the Minnesota Statewide System Freight Action Agenda and recommend how strategies identified in this Plan will integrate within MnDOT and with other stakeholders. For each strategy—whether they be infrastructure projects, operational improvements, or freight policies or programs—we will outline key implementation guidance, which will help define:

- ***Roles and responsibilitie***s. Who is the lead agency or division and what other agencies/ divisions need to be involved? What partnerships with private infrastructure owners would be beneficial? What coordination and with other states is needed for projects of national and regional significance?
- ***Barriers and obstacles***. What are the critical institutional, operational, or other issues that must be resolved before the strategy can move forward?
- ***Funding plan.*** What are the best approaches for funding projects?
- ***Phasing and dependent strategies***. What other projects or strategies must be accomplished before, after, or concurrent with the proposed strategy? What are the implications if they are not implemented?
- ***Definition of success***. What constitutes "successful" implementation? What clear benchmarks are expected along the way?

This process will result in identification of those projects that should be moved forward into implementation by MnDOT, in partnership with stakeholders, in short-, mid- and longer-term timeframes. The short-term strategies will constitute "quick wins" that MnDOT can act on now; providing industry with tangible benefits and showing that the Plan process, and engaging with MnDOT, was worth their time invested. Larger, higher cost projects that provide benefits to both public- and private-sector stakeholders will also be included in the identification; these projects will be ideal candidates for collaborative grant applications, such as the TIGER or TED programs.

As part of describing the actions the State of Minnesota should take, this subtask will also describe the cost of "doing nothing," or not investing in the State's freight system. This content will be primarily qualitative, drawn from stakeholder perspectives, but will be critical to making the case for continued and increasing freight investments.

Task 5 Deliverables:

- All Task 5 subtask findings will be consolidated into a single, graphic rich technical document that articulates Minnesota's Freight Action Agenda; targeted actions MnDOT and its freight system stakeholders can take to improve the Minnesota's freight system and enhance economic growth opportunities in the State.
- An annotated outline of the final report (a consolidation of the technical documents produced in previous tasks) will be developed.