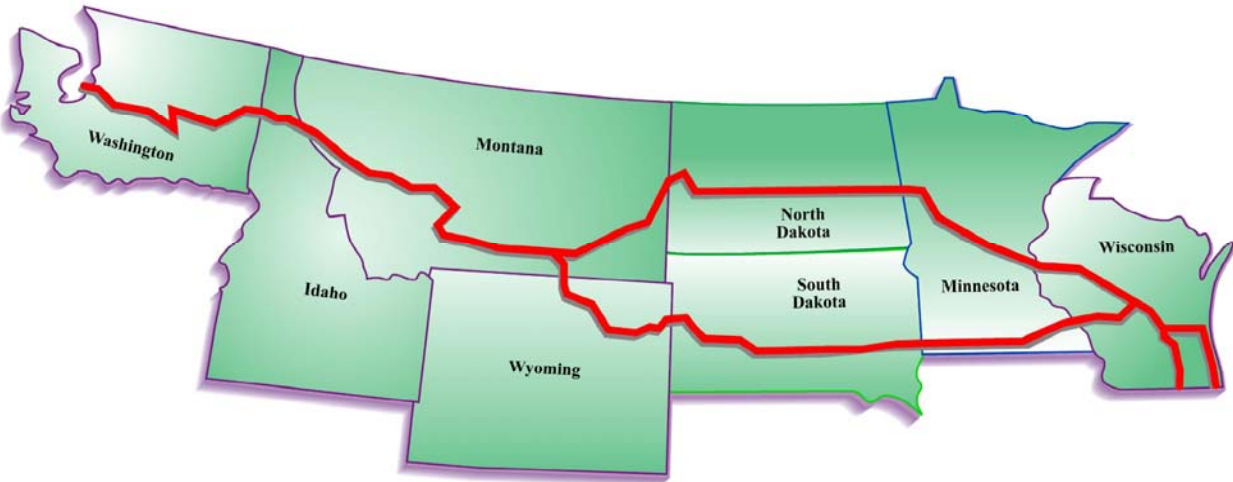


**North/West Passage
Transportation Pooled Fund (TPF-)**

Work Plan 4

FINAL



North/West Passage Transportation Pooled Fund Work Plan 4

Background

The North/West Passage Corridor encompasses the states along I-90/I-94 from Wisconsin to Washington. The states within the North/West Passage Corridor are predominately rural and face similar transportation issues related to traffic management, traveler information, and commercial vehicle operations. Within the corridor states, there are numerous systems for collecting, processing, and integrating traveler and road maintenance information. At present, this information is not readily shared across state borders. Recognizing the value of coordinated, cross-border collaboration for ITS deployment to address these issues, the states formed the Transportation Pooled Fund (TPF-5(093)) in 2003.

The vision of the North/West Passage Corridor is to immediately influence ongoing standards development and utilize effective methods for sharing, coordinating, and integrating traveler information across state borders. While traveler information reflects the initial destiny, coordinated maintenance and operations and planning and programming are long-term visions.

The states have completed several projects in the years since their establishment as a pooled fund. Some Work Plan 1 projects involved significant construction or equipment purchases, and the North/West Passage pooled fund served as project initiator. Under Work Plan 2, an ITS Integrated Corridor Strategic Plan was developed to guide future collaboration in the corridor. The plan focuses on center-to-center information sharing opportunities, includes a high-level architecture for the corridor, presents an inventory of existing systems, and identifies a coordinated deployment and operational concept for traveler information systems across state borders.

Work Plan 3 projects began building the operational concept introduced in the Strategic Plan. A high-level traveler information web site was developed and launched for the corridor (www.i90i94travelinfo.com) and initial guidance for consistent descriptions of major events was established. Complete details on previous work plans and individual projects are available through the program web site at www.nwpassage.info.

Purpose

Building on several projects recommended in the ITS Integrated Corridor Strategic Plan for North/West Passage, Work Plan 4 presents a series of projects targeted for completion in 2008-2009. The projects continue to integrate traveler information systems and coordinate maintenance operations across state borders.

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Financial Status

There have been two previous solicitations for funding associated with North/West Passage. Solicitation 1 in 2003 generated \$200,000 from the states of Minnesota, North Dakota and Wisconsin. In 2006, the Solicitation 2 generated funding from all eight states totaling \$425,000. After completing Work Plan 3, approximately \$35,000 in funding will remain available for projects in Work Plan 4. Solicitation 3 will be issued to further supplement Work Plan 4. In the third solicitation, states will be asked to contribute another \$25,000 each; bringing the total estimated funding available to \$235,000 for Work Plan 4.

Projects

At the March 11, 2008 annual meeting the states reviewed the North/West Passage goals, objectives and projects completed to-date in order to gauge interest in continuing to work as a pooled fund. The states all agreed that goals are being met and the work being done is of enough value to warrant continuation of the pooled fund. A list of prospective projects (see Table 1) for Work Plan 4 was then shared with the states. The prospective projects were based on member suggestions and the Strategic Plan, and each state was asked to score the projects based on the following criteria.

- Anticipated Benefits to Corridor (Points 1-40)
- Likelihood of Success (Points 1-10)
- Compatibility with Vision and ConOps (Points 1-40)
- Timeliness of Project (Points 1-10)

The voting results, along with planning level cost estimates are also presented in Table 1.

Table 1: Voting Results for Work Plan 4 Projects

Project Name	Estimated Project Costs	Estimated Cumulative Costs	Total Points Voted	Rank by Points
North/West Passage Traveler Information Website – Phase 2	\$50,000	\$50,000	676	1
Call Forwarding and Evaluation of Cross Border Information Requests	\$10,000	\$60,000	641	2
Center-to-Center Communications Concept of Operations	\$200,000	\$260,000	636	3

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Project Name	Estimated Project Costs	Estimated Cumulative Costs	Total Points Voted	Rank by Points
Corridor-Wide Oversize/Overweight Permitting	\$35,000	\$295,000	583	4
Expanded Corridor-Wide Truck Parking Facilities	\$40,000	\$335,000	572	5
Consistent and Coordinated DMS Use	\$25,000	\$360,000	564	6
Corridor-Wide Marketing and Outreach to CVOs	\$55,000	\$415,000	557	7
Facilitating the Use of Open Source Software Throughout the Corridor	\$30,000	\$445,000	545	8
Maintenance Decision Support – Corridor-Wide Assessment	\$50,000	\$495,000	515	9
Warrant Assessment and Preliminary Design of ITS Devices Along the Corridor	\$20,000	\$515,000	497	10
North/West Passage Traveler Information Website – Phase 3	\$175,000	\$690,000	464	11

After discussing the voting results and three potential Work Plan 4 scenarios on April 15, 2008, the states agreed to pursue the projects listed in Table 2. Full project details are included at the end of this work plan in Appendix A. Details for those projects not selected for this work plan are also included in Appendix B.

It should be noted that one project – Center-to-Center Communications Concept of Operations – was regarded as essential by the states because of the foundational nature of the work. However, the states were reluctant to commit all of their funding this one project as it was originally scoped. It was agreed that a scaled-down (i.e., removing two workshops) concept of operations could still potentially be created for \$30,000 vs. \$200,000-250,000. The states agreed to include the project in the work plan understanding that the final project mix could change slightly depending on cost estimates and scopes of work received from the contractors hired to complete them.

Several other expenses are estimated in addition to the projects. Program administration support is as an overarching contractor task to support the Program Administrator with meeting preparations, writing conference papers, preparing presentations, etc. The states are also

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planning to meet twice in the coming year and the estimated cost consists of associated travel expenses. Finally, website maintenance costs are estimated for hosting and maintaining content of the two program related websites.

Table 2: Work Plan 4 Funding Plan

Expense	Estimated Costs	
Projects ¹		
4.1 North/West Passage Traveler Information Website – Phase 2	\$50,000	
4.2 Call Forwarding and Evaluation of Cross Border Information Requests	\$10,000	
4.3 Center-to-Center Communications Concept of Operations (revised)	\$30,000	
4.4 Corridor-Wide Oversize/Overweight Permitting	\$35,000	
4.5 Expanded Corridor-Wide Truck Parking Facilities	\$40,000	
Program Administration Support	\$25,000	
Member Travel Support (two meetings)	\$20,000	
Program Website Maintenance (www.nwpassage.info)	\$5,000	
ATIS Website Maintenance (www.i90i94travelinfo.com)	\$5,000	
Revenue		Estimated Revenue
Unspent Balance from Solicitation 2		\$35,000
State Contributions from Solicitation 3		
- 8 states @ \$25,000/state		\$200,000
Total (Revenue vs. Expenses)	\$220,000	\$235,000

¹ Depending on contractor estimates to complete individual projects, particularly Project 9, other projects may be added according to their vote ranking.

Table 3 presents the estimated schedule for completing the projects and support tasks proposed for Work Plan 4. As with cost estimates and scopes of work, the anticipated schedule for completing each project or support task may also change.

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Table 3: Work Plan 4 Estimated Schedule

Project	2008						2009					
	J	A	S	O	N	D	J	F	M	A	M	J
4.1 North/West Passage Traveler Information Website – Phase 2												
4.2 Call Forwarding and Evaluation of Cross Border Information Requests												
4.3 Center-to-Center Communications Concept of Operations												
4.4 Corridor-Wide Oversize/Overweight Permitting												
4.5 Expanded Corridor-Wide Truck Parking Facilities												
Program Administration Support												
Member Travel Support												

The states will be directly involved with finalizing contractor cost estimates, scopes of work and schedules for each of the projects to ensure concurrence with the final mix of projects contracted for Work Plan 4.

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The details of projects 4.1 – 4.5 are included in this appendix. For each project, a title, description, and recommended champion is provided, in addition to a prospective approach, anticipated benefits, participants, duration and timing. Also provided are planning level cost estimates and anticipated deliverables. This planning level information was used as the basis to develop this work plan and will be used to arrange contractor services to execute the individual projects. Details for those projects not selected for this work plan are also included in Appendix B.

Project Title	4.1 North/West Passage Traveler Information Website – Phase 2
Project Champion	Alison Lantz, Idaho Transportation Department Bob Koeberlein, Idaho Transportation Department
Project Purpose	Enhance www.i90i94travelinfo.com by adding a corridor-wide alert feature on the overall corridor map display.
Background / Current Status	Phase 1 of the corridor-wide website created a high-level traveler information website. Another project completed by the North/West Passage states also developed a listing of consistent road condition descriptors, which will be used in this project as the basis for displaying alerts.
Approach	In this Phase 2 project, connections will be established with each member state’s reporting system such that any time there is a road closure or major event in state, www.i90i94travelinfo.com receives and displays a notification of the event. The corridor-wide website will be modified to alert visitors to the site that there is a closure/major event within a state (e.g. shading the state red or outlining the state in red) and encourage visitors to click on the state and be linked to the state operated traveler information page to view event details. This phase will be low cost and relatively straight-forward, and will not facilitate any raw data exchange between reporting systems. The operating system deployed in this project will be evaluated through usage tracking and on-line surveys to determine if there is a need for further integration to display icons and event descriptions on the www.i90i94travelinfo.com homepage.
Benefits to the Corridor	Real-time critical event alerts shared on a corridor-wide basis.
Funding Availability	This project will use all North/West Passage funding.
Compatibility with Corridor Vision & ConOps	This project promotes the concept of “borderless” travel along the corridor in terms of distributing traveler information related to critical events.
Timeliness of Project	The project is timely in that the corridor-wide website will be operational and will support additional enhancement. It is also timely in that consistent event descriptions have been developed.
Participants	All North/West Passage states.

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Project Title	4.1 North/West Passage Traveler Information Website – Phase 2
Duration/Timing	6 months
Costs	\$50,000 There may be slight modifications needed to some state websites or reporting systems to allow www.i90i94travelinfo.com to pull information about major events. These costs are outside of this project.
Deliverables	Enhanced website capable of alerting visitors to which states have closures and/or major events (and allowing them to click to state operated traveler information sites).

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Project Title	4.2 Call Forwarding and Evaluation of Cross Border Information Requests
Project Champion	Bob Koeberlein, Idaho Transportation Department
Project Purpose	The purpose of this project is to offer a short-term, easily deployed solution for making corridor-wide 511 traveler information available to callers at any location along the corridor using call forwarding options among member states. The second goal of this project is to evaluate the demand for corridor-wide information by tracking the number of requests from callers to be transferred to neighboring North/West Passage states. While it is generally agreed that it will be beneficial to offer information on other states along the corridor (either through call forwarding or event description exchange), this will provide real-world numbers on the actual volume of requests.
Background / Current Status	Currently, 511 phone systems are operational in seven of the eight North/West Passage states. Wisconsin is planning for a 511 system. Each system offers the ability to perform call forwarding to other phone systems, and each system allows for tracking of call forwarding activities. The 511 systems in the North/West Passage states are operated through a variety of approaches that include internal operations and outsourcing of operations. Therefore, modifications to the 511 systems would best be performed by each North/West Passage member state.
Approach	<p>The proposed approach to this project is to develop and agree to a consistent way for forwarding callers from one state 511 system to another. This approach might include common recordings or menu options allowing transfers among North/West Passage states (e.g., “For call transfer to neighboring states, press or say 9”). Then, each state will be asked to implement the call forwarding option to at least the neighboring North/West Passage states, but ideally allowing callers to request any North/West Passage state.</p> <p>In addition, each state will be asked to modify their 511 phone system to track the number of requests for transfers to the other member states. Additional tracking (if possible) also would be useful. For example, some 511 systems may be able to track if the call came in to their system by being forwarded from another state, and it might be of value to report and evaluate the time callers spend after arriving at another state’s 511 system. The evaluation can serve two key purposes:</p> <ol style="list-style-type: none"> 1. If little or no demand exists, this will be valuable information for future project considerations, such as event sharing among states. 2. The evaluation can assess the likely long-term costs of call forwarding fees and other costs associated with this approach operating over the long term.
Benefits to the Corridor	<p>The benefits of this project are that travelers would have the ability to be forwarded to any North/West Passage state’s 511 phone system.</p> <p>The initial stage of this project should involve assessing those North/West Passage states that currently offer call forwarding to other</p>

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Project Title	4.2 Call Forwarding and Evaluation of Cross Border Information Requests
	states to better understand the projected number of calls that may be forwarded. Each North/West Passage state will have a different cost structure for forwarded calls (depending upon their approach to long distance and call transfers). This will further enable projection of the operational costs associated with offering call forwarding throughout the corridor.
Funding Availability	The budget for coordination and planning are proposed to be North/West Passage funds. However, the success of this project would require each state to perform slight modifications to their 511 phone systems, the costs for which would not be funded by this project.
Compatibility with Corridor Vision & ConOps	This project is compatible with borderless corridor concept and providing integrated traveler information systems along the entire length of the corridor.
Timeliness of Project	This project is timely in that the corridor-wide website (www.i90i94travelinfo.com) has been released and may be used to market the call forwarding access to all states' 511 telephone systems.
Participants	This project will involve all North/West Passage member states, but it could begin with 1-3 member working group developing a framework for the call forwarding option.
Duration/Timing	3-6 months (for configuration planning) Timelines for implementing the call forwarding will depend on each state's schedule for changes to their 511 system.
Costs	\$10,000 (for configuration planning) Each state will bear their respective costs for implementing the call forwarding. The call forwarding also will have some operational cost impacts for the additional calls placed. Again, the operational cost impacts will vary according to the telephone service operated for each state's 511 system and call volumes.
Deliverables	<ul style="list-style-type: none"> Operational call forwarding between all North/West Passage states (exact parameters of forwarding to be determined) Evaluation feedback on the demand for call forwarding to access neighboring states' travel information.

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Project Title	4.3 Center-to-Center Communications Concept of Operations
Project Champion	To be determined
Project Purpose	This project will develop a detailed concept of operations that specifies the states' approach to sharing information between operations and maintenance centers (e.g., state-to-state). The concept of operations will bring together the findings of the previous operations and maintenance workshop and will use these findings to develop a methodology to share the pertinent information discussed in these projects. The project should define agency roles and responsibilities, systems to be used, general types of information/data to be exchanged, the format that the information/data will be stored, the periods/timeframes that data will be exchanged, and other processes that should be followed when exchanging data.
Background / Current Status	The states have collectively agreed that center-to-center communications would be the sole method by which electronic data will be exchanged across state borders. Although center-to-center communication currently occurs between several states via non-automated means (e.g., e-mails, fax, phone calls) and, to a somewhat limited degree, more efficient and automated means to collect and receive neighboring state data is desired.
Approach	The concept of operations will document the state-of-the-practice in center-to-center communications; identify barriers to integration, and strategies for addressing these barriers. To date, part of the difficulty that has prevented neighboring states from implementing projects like this is that communications platforms vary from state to state and much of the data that is collected by individual states is in a proprietary format that cannot easily be shared or integrated into systems owned and operated by neighboring states. The concept of operations will serve as the basis for further developing requirements and detailed system design.
Benefits to the Corridor	This project will provide an open forum in which individual needs can be stated and a corridor-wide consensus regarding the exchange of information/data can be achieved. Furthermore, the high-level concept of operations will promote the design of systems that complete the corridor vision for exchanging information/data.
Funding Availability	This project will use all North/West Passage funding.
Compatibility with Corridor Vision & ConOps	This project supports the development and promotion of cross-border jurisdictional cooperation and coordination in the planning, deployment, operations, and maintenance of ITS infrastructure.
Timeliness of Project	The project is timely in that all of the North/West Passage states have, are planning, or are building transportation operation centers. Developing common procedures and integrating systems, where practical, would be most easily accomplished as new centers are being established.
Participants	All North/West Passage states.

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Project Title	4.3 Center-to-Center Communications Concept of Operations
Duration/Timing	9-12 months
Costs	\$30,000
Deliverables	Draft and final concept of operations documents

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Project Title	4.4 Corridor-Wide Oversize/Overweight Permitting
Project Champion	Bill Gardner, Mn/DOT Ginny Crowson, Mn/DOT
Project Purpose	The ultimate goal is that commercial vehicle carriers are able to obtain basic oversize/overweight permits for the entire North/West Passage Corridor at a 'one-stop-shop' either by calling any state in the corridor or visiting an online resource.
Background / Current Status	<p>The North/West Passage corridor has considerable commercial vehicle traffic. Currently, commercial carriers must contact individual states to pay for and receive oversize/overweight permits. When crossing multiple states, it is time consuming for carriers as well as for state agencies to obtain/issue multiple permits.</p> <p>The WASHTO Regional Permitting Project currently operates regional permitting in 12 states. Carriers may call any of the participating states and obtain limited permits for their entire trip over the telephone. Washington, Idaho and Montana are active members in the WASHTO Regional Permitting Project; therefore, three of the eight North/West Passage Corridor members are currently offering this service to carriers.</p>
Approach	<p>This project is proposed to assess the feasibility of one-stop-shop permits for the entire corridor. This study will accomplish three things:</p> <ol style="list-style-type: none"> 1. North/West Passage members will review the current WASHTO Regional Permitting System and investigate, through discussions within each state, whether regional permitting is possible and acceptable to each of the North/West Passage states. 2. The project will engage in conversations with the managers of the WASHTO Regional Permitting System to assess whether it is possible for each North/West Passage state to join the existing Regional Permitting system. In addition, the project will seek to understand if the WASHTO Regional Permitting has ever considered expanding the types of permits handled by regional permitting. 3. Finally, this project will conclude by examining whether additional permits could be 'regionalized' and issued by one agency for the entire corridor. Within this task, the North/West Passage states will create a Concept of Operations for how regional permitting could happen across the states and ultimately seek Federal funding to implement a large scale project to deploy regional permitting. Again, this may be by joining the WASHTO Regional Permitting, or by creating a new regional permitting system.
Benefits to the Corridor	<ul style="list-style-type: none"> • Reduced time and effort for carriers to request permits in multiple states. • Reduced time and effort by commercial vehicle permitting staff when issuing permits. This is based on the premise that once the information is received by phone, the one state issuing the permit can issue multiple states in less time that it would take for the total of

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Project Title	4.4 Corridor-Wide Oversize/Overweight Permitting
	<p>each state issuing permits independently.</p> <ul style="list-style-type: none"> • A corridor-wide view of the number of permits issued for multi-state travel and the travel patterns of commercial vehicles.
Funding Availability	This project is proposed to use all North/West Passage funds. However, part of the project is to scope out a larger project that could be proposed for Federal funding.
Compatibility with Corridor Vision & ConOps	Cooperation and integration of systems across state jurisdictions has always been a high priority for the North/West Passage corridor. This project has the potential to have a very near term impact on commercial vehicle carriers traveling throughout the entire corridor.
Timeliness of Project	The project is timely in that the WASHTO Regional permitting project has now been operational for a number of years. North/West Passage members can benefit from lessons learned by the WASHTO effort, and possibly join the effort to benefit from an existing system.
Participants	The participants would be the DOT commercial vehicle permitting units in each member state. WSDOT, ITD, or MDT representatives who have been working with the WASHTO system would be asked to share their experiences (positive or negative) with members during this project.
Duration/Timing	4-6 months
Costs	\$35,000
Deliverables	<ul style="list-style-type: none"> • North/West Passage Corridor Regional Permitting Concept of Operations • Proposal for Federal Funding for Implementation

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Project Title	4.5 Expanded Corridor-wide Truck Parking Facilities
Project Champion	To be determined
Project Purpose	The goal of this project is to provide the information necessary for states to consider expanding short term truck parking availability in the locations where it is needed most along the I-90 and I-94 corridor from Washington to Wisconsin.
Background / Current Status	The Mississippi Valley Freight Coalition is currently working on a project to examine current truck parking facilities in the 10-state Mississippi Valley Region, and to identify where new or expanded facilities are needed along with issues driving the need for parking at these facilities. The scope of the Mississippi Valley study is the major freight corridors on the interstate highways in the ten-state region.
Approach	The North/West Passage will coordinate efforts with the Mississippi Valley Freight Coalition and to identify where new or expanded parking facilities are needed. Project tasks include: <ul style="list-style-type: none"> • Inventory of parking locations for commercial vehicles along the North/West Passage corridor • Identify locations of designated parking areas currently available • Identify privately operated truck stops • Survey truckers and state patrol representatives to gain information on parking facility needs and concerns • Identify and rank strategies to address needs and concerns • Recommend potential locations for truck parking needs and strategies along the corridor.
Benefits to the Corridor	This project will provide information about the location and causes of perceived and real inadequacy in truck parking facilities along the North/West Passage corridor.
Funding Availability	This assessment and recommendations from this project are proposed to use all North/West Passage funds. However, any detailed design and construction to expand the parking facilities will be borne by the individual states.
Compatibility with Corridor Vision & ConOps	This project relates to understanding the common and unique information needs of the corridor's diverse travelers.
Timeliness of Project	The Mississippi Valley Freight Coalition is currently pursuing a project to identify truck parking in 10-states. This provides an opportunity to coordinate with another coalition in order to streamline similar efforts.
Participants	All North/West Passage states.
Duration/Timing	6 months
Costs	\$40,000

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Project Title	4.5 Expanded Corridor-wide Truck Parking Facilities
Deliverables	Final report of recommendations for the needs and strategies associated with expanded truck parking along the corridor.

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This appendix contains the details of projects not selected for Work Plan 4. The projects are documented here for future work plan reference and for further consideration should additional funding become available to the North/West Passage states.

Project Title	Warrant Assessment and Preliminary Design for ITS Devices Along the Corridor
Project Champion	Ray Starr, Mn/DOT (or other interested steering committee representative)
Project Purpose	<ul style="list-style-type: none"> • Determine if current devices have been properly placed along the corridor; • Identify future device locations; • Seek Federal funding for future device locations.
Background / Current Status	The ENTERPRISE Transportation Pooled Fund (SPR-3(020)) has developed initial warrants for the installation and use of technology devices for transportation operations and maintenance (including technologies commonly referred to as ITS). The project has developed warrants for DMS, HAR, RWIS, and CCTV devices and is in the process of testing the warrants to assist decision makers in guiding the initial decision of whether or not to deploy a device at a specific location. For additional information visit: http://www.acconsultants.org/itswarrants/ .
Approach	<p>This project will consist of four activities:</p> <ol style="list-style-type: none"> 1. Execute the existing warrants for each technology proposed in the Strategic Plan at locations that individual states believe would be the initial deployment locations, as well as an assessment of the locations of current devices. This process would help narrow the locations where corridor members feel ITS devices should be deployed by eliminating some locations where devices are determined to be 'non-warranted'. 2. Provide feedback to the ITS warrants development process based on the use by North/West Passage as a corridor-wide program. This will help contribute to the eventual final warrants, especially ensuring that corridor-wide considerations are included. 3. Identify locations and develop preliminary design for additional devices that are 'warranted'. 4. Develop a proposal for Federal funds for the deployment of devices that are key to the overall operation of the North/West Passage corridor.
Benefits to the Corridor	<ul style="list-style-type: none"> • Promote collaboration across two transportation pooled fund programs. • Provide the opportunity to offer feedback on the ENTERPRISE warrants project. • Identify locations where ITS devices would serve the corridor as a whole, which could ultimately lead to Federal funding for deployment

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Project Title	Warrant Assessment and Preliminary Design for ITS Devices Along the Corridor
	of devices.
Funding Availability	This project would use all North/West Passage funding initially, but would position the program to hopefully receive Federal funding to assist in large scale deployments.
Compatibility with Corridor Vision & ConOps	This project involves one of the next steps beyond the Strategic Plan developed in 2006, and helps advance the idea of initial deployments.
Timeliness of Project	ENTERPRISE has recently completed the initial warrants. This project would provide feedback on the warrants in general and on their usability in a corridor setting. The project would also provide states with technical guidance for determining device deployment sites.
Participants	All North/West Passage states
Duration/Timing	2 months
Costs	\$20,000
Deliverables	Project report that identifies all deployed technology devices along the corridor and indicates based on the warrants if a device is warranted or not. The report would also include a list of future device locations and a summary justifying the devices, written as a proposal for Federal funds.

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Project Title	Consistent and Coordinated DMS Use
Project Champion	Dave Huft, South Dakota DOT
Project Purpose	Establish a set of consistent messages (phrases) to be used on Dynamic Message Signs (DMS) signs throughout the corridor, and a plan for coordinated DMS use.
Background / Current Status	Each state uses DMS to display event information to travelers. The messages that are displayed may differ by organization and by operator. Similarly, the signs may be used to alert drivers to local events or long term events. In order that travelers have consistent experiences and receive the most applicable notices of events, this project proposes to develop a plan for coordinated use of DMS signs (e.g. when signs are used for local events and when major ‘corridor-influencing’ events are displayed upstream to a wider audience (replacing local messages).
Approach	<p>This project will benefit from the experiences of member states that currently operate DMS. The following major activities are anticipated:</p> <ul style="list-style-type: none"> • Poll the states to determine the current message sets that are used by the member states to describe events on DMS • Poll the states to understand any existing procedures for when long range events are displayed on DMS replacing displays of local events • Work with a small subset of the states to define a preliminary set of DMS message sets and a set of procedures for how DMS are used along the corridor. • Share the DMS message sets and procedures with all corridor members for feedback, input and ultimately consensus.
Benefits to the Corridor	Consistent use of DMS along the corridor, and a solid understanding of the procedures for posting event messages
Funding Availability	This project would use all North/West Passage funds
Compatibility with Corridor Vision & ConOps	This project promotes the concept of “borderless” travel along the corridor in terms of receiving critical traveler information from DMS signs in a consistent manner throughout the corridor.
Timeliness of Project	The project is timely in that similar messages have been created for entry into reporting systems (and on traveler information systems) and this project can build upon the results of that project.
Participants	All North/West Passage states. It is proposed that a small subgroup form to work on the project and then to involve the entire corridor when the draft is available.
Duration/Timing	6 months
Costs	\$25,000
Deliverables	<ul style="list-style-type: none"> • Recommended DMS messages and procedures/protocols for DMS sign use

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Project Title	Facilitating the Use of Open Source Software Throughout the Corridor
Project Champion	Vince Garcia, WYDOT
Project Purpose	This project will help advance the concept of open source software throughout the corridor to help reduce the costs of developing and maintaining software systems.
Background / Current Status	<p>Mn/DOT has developed their traffic management center software using in-house developers; with no reliance on commercial proprietary systems. Recently, Mn/DOT has decided to release their software (IRIS) as open source software licensed under the General Public License (GPL). This license option allows Mn/DOT to share the software source code and documentation with other agencies and the private sector. Others may use, edit, modify and redistribute the IRIS software, provided they maintain the software as open source (and not make it proprietary). This means that other North/West Passage states could receive the software from Mn/DOT at no cost, and then hire software companies to integrate and even add functionality to the software. The concept of open source software is used extensively in the software industry, but only rarely in the ITS industry.</p> <p>This project would help educate the North/West Passage states on how to acquire, modify, maintain and integrate open source software. The IRIS software is only one example of open source software where the source code is available at no cost.</p>
Approach	This project would use the IRIS software as a model and work with each member state to determine if IRIS is an option to be deployed within the state. In doing so, each state will interact with experts who will explain the differences and similarities in procuring, developing and maintaining open source software.
Benefits to the Corridor	<ul style="list-style-type: none"> • States will become familiar with open source software and have a better understanding as to whether it makes sense within their organization. • States will have considered the use of the IRIS software. This may lead to one or more member states deploying IRIS and potentially saving considerable costs. • States could possibly develop a long term relationship where they each develop open source software (either IRIS or other systems), sharing their codes and modules with member agencies.
Funding Availability	This project will use all North/West Passage funds.
Compatibility with Corridor Vision & ConOps	States may be able to offer enhanced traveler information or deliver maintenance operations across state borders by using open source software.
Timeliness of Project	The project is timely in that all of the North/West Passage states have, are planning, or are building transportation operation centers that could benefit greatly from open source software.

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Project Title	Facilitating the Use of Open Source Software Throughout the Corridor
Participants	All North/West Passage states.
Duration/Timing	The estimated duration for this project is 9-12 months, and it is suggested that it be scheduled for initiation in 2008.
Costs	\$30,000
Deliverables	Summary report of sessions held with each state documenting their plans to use IRIS or other open source software.

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Project Title	Maintenance Decision Support – Corridor-Wide Assessment
Project Champion	Dave Huft, South Dakota DOT
Project Purpose	Determine a Corridor-wide Vision for Maintenance Decision Support Systems
Background / Current Status	<p>The Maintenance Decision Support System(s) (MDSS) has been in development and limited use for several years. Some states are already benefiting from MDSS, realizing benefits of improved road conditions and savings of significant resources by more efficient roadway treatment. This project proposes to examine the role of MDSS to support corridor-wide maintenance and traveler information.</p> <p>For example, if a state using MDSS predicts the precipitation expected over the next 6 hours, and plans to follow the MDSS recommendations for treatment, there is a general understanding of what the conditions of the road will be. This forecast of road conditions could be disseminated to travelers to help make decisions 4-8 hours in advance of the time they are expecting to travel in a North/West Passage member state.</p>
Approach	<p>The approach to this project will involve three key activities:</p> <ol style="list-style-type: none"> 1. Educate the North/West Passage member states about the current status, future plans, and actual and potential benefits of MDSS use; 2. Facilitate open discussion among the states to assess what each state has planned for MDSS use. More specifically, it will seek to document whether each states is planning on MDSS deployment and use, considering the possibility of MDSS deployment and use, or not considering the possibility; 3. Based on the plans of each state, a North/West Passage Corridor-wide MDSS Concept of Operations will be developed, similar to the Clarus Concept of Operations.
Benefits to the Corridor	Understanding of the plans for MDSS along the corridor; and a Concept for how MDSS will/may benefit each state along the corridor.
Funding Availability	This project would use all North/West Passage funds
Compatibility with Corridor Vision & ConOps	This project promotes the concept of “borderless” travel along the corridor in terms of deciding a corridor approach to MDSS.
Timeliness of Project	The project is timely in that MDSS activities are well underway and there are actual benefit results to report.
Participants	All North/West Passage states.
Duration/Timing	8 months
Costs	\$50,000
Deliverables	<ul style="list-style-type: none"> • MDSS Concept of Operations for the Corridor

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Project Title	Corridor-Wide Marketing and Outreach to CVOs
Project Champion	To be determined
Project Purpose	<p>The purpose of this project is to establish brand recognition for the North/West Passage corridor and to initiate outreach and education to the commercial vehicle operators (CVOs) that travel the corridor regularly. While the North/West Passage corridor will be used by commuters, vacationers, and leisure travelers, the CVOs who regularly drive long routes along the corridor will likely be the biggest benefactors of the coordinated information available for the entire corridor. CVOs also are most likely repeat drivers of the corridor and, therefore, may quickly build habits of regular use of traveler information systems offered along the corridor.</p> <p>A secondary purpose to this project will be to work with a qualified marketing team to establish a “brand” image for the North/West Passage corridor. This image will consist of the nomenclature to be used when announcing the corridor to the traveling public (e.g., this may be “The I-90/I-94 Corridor” or “The Corridor between Seattle and Milwaukee”). In addition, common graphics, images, and other materials will be developed for use in press releases, public statements, and the promotion of services to the traveling public. As one example, the North/West Passage states might consider that each member state’s 511 phone system contain an option “9” on the menu that allows for call forwarding to other North/West Passage states or allows for corridor-wide information reports. Regular travelers of the corridor would then come to remember, “For information on other states along the I-90 or I-94 corridor, press 9 or say corridor” and be comfortable requesting this information regardless of their location.</p>
Background / Current Status	<p>There currently are a number of established communication channels to reach CVOs. Member state agencies may support commercial vehicle web pages displaying permitting information or may perform regular mailings to carriers. In addition, many carriers regularly purchase permits at DOT facilities.</p> <p>The first task of this project would be to assess the current communication channels that exist with commercial vehicle carriers (both real-time and periodic communication) in an effort to develop a market outreach plan. In addition, the public affairs coordinators in each member state likely will have established procedures and processes that must be respected, and in many cases, can be leveraged to accomplish this project.</p>

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Project Title	Corridor-Wide Marketing and Outreach to CVOs
Approach	<p>Marketing to CVOs along the corridor should begin with an initial stage to develop a marketing plan. This plan should consist of defining “who” the primary target audience is. Then the North/West Passage members should develop and reach consensus on “what” messages are to be conveyed to the primary audience (e.g., one option might be that the message is to inform them of the North/West Passage website and the ability to call transfer to any North/West Passage state by calling 511). Then the market outreach effort should define “how” the communication will be performed. This is where the existing communication channels (and use of flyers, web announcements, press releases, or media outlets) also will be utilized.</p> <p>The second phase of the project should focus on performing the outreach to commercial vehicle carriers by executing the marketing plan.</p>
Benefits to the Corridor	<p>Increased awareness by CVOs and dispatchers of the traveler information available along the corridor and especially about the coordinated manner in which information is offered on the North/West Passage website and coordinated 511 systems.</p> <p>Established “brand” image for the corridor that member states can use in press releases, informational flyers, and other outreach to travelers. This will help ensure that the corridor is presented in a common format throughout the states.</p>
Funding Availability	This project would use all North/West Passage funds
Compatibility with Corridor Vision & ConOps	This project promotes the awareness of integrated traveler information among a key user of the corridor -CVOs
Timeliness of Project	Launch of the www.i90i94travelinfo.com site and 511 call forwarding among North/West Passage states provide excellent traveler information resources for making CVOs aware of the corridor.
Participants	All North/West Passage states
Duration/Timing	It is suggested that this project be targeted for 2008 after the corridor web sites, kiosks, and 511 options have been established for travelers to use.
Costs	<p>\$55,000 (\$35,000 for Phase 1, \$20,000 for Phase 2).</p> <p>It would also be expected that member states might utilize their public affairs personnel and/or resources to produce marketing materials such as posters, mailings, news releases, etc.</p>
Deliverables	<ul style="list-style-type: none"> • Marketing plan • Outreach effort to introduce and promote the corridor-wide traveler information services to CVOs

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Project Title	North/West Passage Traveler Information Website – Phase 3
Project Champion	Alison Lantz, Idaho Transportation Department (or other interested steering committee representative)
Project Purpose	Enhance www.i90i94travelinfo.com by adding corridor-wide major event descriptions on the overall corridor map display.
Background / Current Status	Phase 1 of www.i90i94travelinfo.com created a high-level traveler information website. Another project completed by the North/West Passage states also developed a listing of consistent road condition descriptors, which will be used in this project as the basis for displaying alerts. Phase 2 of the website is a mandatory phase before this phase and will establish links to all North/West Passage state reporting systems to exchange notification of major events. Phase 2 has not yet been funded, but is a proposed project.
Approach	The Phase 3 of the North/West Passage traveler information website will establish center-to-center event exchange and filtering to populate www.i90i94travelinfo.com with real-time major event descriptions. Challenges facing Phase 3 will include the selection of icons for the map, determining whether road and driving conditions are shown as icons or as colored roadways, and determining how many events/icons to show on the highest level corridor map. Additionally, the location descriptions (and each state’s ability to geo-reference the events) will be critical to the success of this project.
Benefits to the Corridor	Real-time critical event information shared on a corridor-wide basis.
Funding Availability	This project is proposed to use all North/West Passage funding.
Compatibility with Corridor Vision & ConOps	This project promotes the concept of “borderless” travel along the corridor in terms of distributing traveler information related to critical events.
Timeliness of Project	The project is timely in that the corridor-wide website will be operational and will support additional enhancement. It is also timely in that consistent event descriptions have been developed.
Participants	All North/West Passage states
Duration/Timing	12 months
Costs	\$175,000 There may be slight modifications needed to some state websites or reporting systems to allow www.i90i94travelinfo.com to pull information about major events. These costs are outside of this project.
Deliverables	Interactive website capable of displaying closures and/or major events on the corridor-wide map.

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Large Project Concept #1: Corridor-Wide One-stop-shop Permitting

Project Concept:

Regional one-stop-shop permitting has been proven for the most common and basic loads, and is operational today in the WASHTO Regional Permitting System.

This project proposes to research and test the possibility of Corridor-wide Regional permitting for Superloads, as well as to explore CVISN integration to cover as much of the corridor as possible.

Project Approach:

This project would not only benefit the North/West Passage Corridor, but also would benefit the National transportation network through the research results. In addition, to complete this project properly, more funds are required than would be available from the annual North/West Passage contributions of member agencies. For these reasons, the North/West Passage Pooled Fund will seek Federal funding (or local state commercial vehicle funding) for this project.

Relationship to Other Projects:

This project is closely tied to Candidate Project #2 being considered for the 2008-2009 North/West Passage Work Plan. If Project #2 is funded and completed, the results of the project would help this effort make a better proposal for Federal funds. However, this project and Project #2 are being considered independently. If Project #2 is not funded, this effort could move forward.

North/West Passage Commitment:

This project concept would be performed as follows:

- North/West Passage members would participate in a conference call to discuss and formalize a plan for this project proposal for Federal funds
- The North/West Passage Program Support consultant would document the outcome of the call and (using current support funding) prepare a draft proposal for Federal Funds. This would be a 5-10 page unsolicited proposal to the USDOT.
- The North/West Passage members would each submit the unsolicited proposal to their local FHWA representatives, as well as a group submittal would be delivered the FHWA headquarters.
- The group would seek feedback from USDOT on whether the concept has potential to receive federal funding, and/or if the USDOT could recommend additional actions.

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Large Project Concept #2: Expanded Mississippi Valley Truck Parking Project

Project Concept:

The Mississippi Valley Corridor has an existing truck parking project to identify the need (and potential) for additional parking and/or information systems to notify truckers of available parking. The Mississippi Valley group has also recently submitted a proposal to FHWA to fund the deployment of expanded corridor-wide truck parking facilities.

The concept of this project is to attempt to expand the Mississippi Valley project throughout the North/West Passage Corridor (if this is acceptable to the Mississippi Valley group).

Project Approach:

The approach to this project is to actively seek agreement from the Mississippi Valley group to collectively solicit additional Federal funds to expand the Mississippi Valley project to include the North/West Passage corridor. If acceptable to the Mississippi Valley group, this expanded geographical area might make a stronger proposal to FHWA for federal funds, and would assist truckers throughout both corridors.

Relationship to Other Projects:

This project is closely tied to Candidate Project #6 being considered for funding. Proposed Project #6 involves the research and background information gathering about the needs and potential for additional truck parking. Project #6 could either be performed as part of this project or as a precursor to this project, therefore consideration of this project is considered separate from consideration of Proposed Project #6.

North/West Passage Commitment:

This project concept would be performed as follows:

- A designated North/West Passage member would approach the Mississippi Valley group with a brief written proposal for cooperation.
- If the Mississippi Valley group agrees to include the North/West Passage Corridor in a proposal to FHWA (either for initial funds or expanded funds to the funds they already have), North/West Passage members will offer support to the Mississippi Valley however needed to prepare the proposal.