



## Legislative Fiscal Bureau

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TO: Members  
Joint Committee on Finance

FROM: Bob Lang, Director

SUBJECT: Governor's Section 13.10 Request for Approval of Federal Economic Stimulus  
Funding for High-Speed Rail Service -- Agenda Item I

### REQUEST

The Governor requests approval of \$810,000,000 received under the high-speed, inter-city passenger rail program component of the American Recovery and Reinvestment Act of 2009, for the establishment of high-speed passenger rail service between Milwaukee and Madison.

### BACKGROUND

The American Recovery and Reinvestment Act of 2009 provided a total of \$8.0 billion for high-speed passenger rail service projects and planning. The Wisconsin Department of Transportation applied for \$817,613,300 for the establishment of passenger rail service between Milwaukee and Madison, as an extension of the current Amtrak Hiawatha route between Chicago and Milwaukee, with intermediate stops in Brookfield, Oconomowoc, and Watertown. On January 28, the U.S. Department of Transportation awarded a grant of \$810,000,000 for the project, which will be administered by the Federal Railroad Administration (FRA).

The Wisconsin Department of Transportation (DOT) has conducted several studies and other preliminary work related to establishing conventional or high-speed passenger rail service over the past 30 years. Of particular importance for the current proposal was the establishment in 1996 of the Midwest Regional Rail System (MWRRS), a multi-state proposal for the development of a high-speed passenger rail network with a hub in Chicago. In Wisconsin, the MWRRS proposal included service between Chicago and the Twin Cities, with stops in Milwaukee, Madison, and other intermediate cities, as well as new service between Milwaukee and Green Bay. In its final report, the Milwaukee to Madison project was identified as a top priority, along with routes

between Chicago and St. Louis and Chicago and Detroit. In 2001, DOT completed an environmental assessment of the Milwaukee to Madison service and completed preliminary engineering studies over the following several years. Since that time, the Department has continued planning work and has initiated several projects related to the service, including the renovation of the Milwaukee Intermodal Station, grade crossing improvements, and, in 2009, the purchase of two train car sets using state passenger rail development bonds.

## **Proposed Capital Improvements**

Based on the previously-completed environmental analysis and preliminary engineering, the Department has developed a list of remaining infrastructure improvements and necessary equipment purchases, which formed the basis for its application for federal funds. The project would include track upgrades to allow for passenger train operation at speeds up to 110 miles per hour and the construction of additional capacity to allow passenger trains to operate without conflicts with freight traffic. In addition, the project would include signal improvements at highway and street crossings, the construction of stations in Madison and the intermediate stop cities, the acquisition of two passenger car train sets (in addition to the two sets acquired in 2009), the acquisition of eight locomotives, the construction of a train service and inspection facility, and the installation of positive train control signaling for use in monitoring and controlling train traffic.

The Department's application for federal funds included an estimate of the costs for all infrastructure and equipment acquisition elements, based on the previous preliminary engineering studies and discussions with Amtrak, Canadian Pacific Railroad (which owns the Milwaukee to Watertown segment), and train equipment vendors. The Department's base estimate for all remaining elements is \$651.8 million, in 2010 dollars. Since these estimates are, in many cases, based on preliminary information, the Department included a 30% contingency in its request for the track and signal construction elements (with smaller contingencies for some other elements), and inflated the adjusted estimate to year-of-expenditure dollars, resulting in a final estimate of \$817.6 million. The following section describes the components of the Department's proposal and cost estimates (contingency and inflation estimates included).

*Milwaukee to Watertown Infrastructure.* The track and signaling improvements in the eastern segment are estimated to cost \$286.1 million. This segment of track, which is owned by Canadian Pacific Railroad, is currently used primarily for freight operations, but is also part of Amtrak's Empire Builder route, with daily round trips between Chicago and the Pacific Northwest. The Department developed the cost estimate for this segment in consultation with Canadian Pacific and included elements that the railroad indicated would be needed to accommodate increased passenger rail traffic without conflicting with the railroad's freight operations. Canadian Pacific would manage the work on the segment, but would be required to award any work not done with its own crews using a competitive bidding process.

*Watertown to Madison Infrastructure.* The western segment improvements are estimated to cost \$330.6 million. Most of the track in this segment is owned by the state and operated by

Wisconsin and Southern Railroad, but is currently only suitable for limited freight operations at low speeds. Accommodating high-speed passenger rail service would require more extensive improvements than the eastern segment, including the complete reconstruction of the ties and rail and the construction of several land bridges over areas where the soil cannot support the track needed for high-speed passenger trains. The infrastructure work would be awarded using a competitive bidding process, and would be managed directly by the Department in cooperation with Wisconsin and Southern Railroad.

*Positive Train Control.* Positive train control systems utilize global positioning systems and integrated information systems to monitor freight and passenger rail traffic. Such systems have the capability of automatically controlling trains in the event that a potential conflict is detected. The installation of positive train control systems is required by the Federal Railroad Administration prior to the initiation of high-speed passenger rail service. The cost of the installation is included in the estimates for track infrastructure improvements.

*Passenger Stations.* The Department's proposal would allocate a total of \$24.8 million (inflation adjusted dollars) for the design and construction of passenger stations in Brookfield, Oconomowoc, Watertown, and Madison. In 2010 dollars, this allocation would be \$9.0 million for the Madison station and \$5.0 million each for stations in the other three cities. The location and design of stations would be determined upon completion of an environmental review process, which would take into consideration input from the affected communities. Each affected municipality would be responsible for the design and construction phase for the stations. The Department indicates that any costs in addition to the above allocations would be the responsibility of the local governments, which is consistent with the original Midwest Regional Rail System plan.

*Passenger Car Train Sets.* The Department's proposal includes \$48.4 million for the purchase of two passenger car train sets, which would be used in conjunction with the two sets that were purchased in August, 2009, using state passenger rail development bonds. The state's 2009 purchase agreement with Talgo, the train car manufacturer, included an option to purchase additional train sets at a lower cost than the original purchase.

*Locomotives.* The Department's estimate includes \$43.0 million for the purchase of eight locomotives (two per train set), capable of high-speed operation. The locomotives are referred to in the application as "next generation" equipment, distinguishing them from current passenger locomotives by their higher efficiency, lighter weight, and faster acceleration capability. The Department indicates that the acquisition of locomotives would be done using a competitive process.

*Train Maintenance Facility.* The Department estimates that the design and construction of a train maintenance facility in Dane County would cost \$47.6 million. The maintenance facility would be located in Dane County to allow certain train sets to be serviced overnight prior to the next day's routes originating in Madison. The construction contract for the facility would be awarded on a competitive basis and would be managed by DOT.

*Environmental Remediation.* The Department's proposal would allocate \$25.8 million for environmental remediation work associated with the infrastructure construction. The remediation commitments were estimated as a result of a review of the 2004 environmental assessment for the project, although actual remediation work would be determined through the course of final design engineering. Of the amount allocated for remediation, most is associated with special measures to limit vibration and noise, although it includes other measures such as erosion control and wetland mitigation.

*Project Oversight.* The Department's proposal includes \$11.4 million for project oversight costs. Most of the project oversight would be conducted by an engineering consultant with expertise in railroad projects, although this estimate also includes funding for Department staff oversight.

The following table summarizes the cost estimates of these elements in the Department's proposal.

**Summary of Project Cost Estimates  
(\$ in Millions, Year of Expenditure)**

<u>Project Element</u>	<u>Amount</u>
Milwaukee to Watertown Infrastructure	\$286.1
Watertown to Madison Infrastructure	330.6
Passenger Stations	24.8
Passenger Car Train Sets	48.4
Locomotives	43.0
Train Maintenance Facility	47.6
Environmental Remediation	25.8
Project Oversight	<u>11.4</u>
 Total	 \$817.6

Note: Totals do not add due to rounding.

**Proposed Construction Schedule and Operating Plan**

In addition to outlining the type and estimated cost of the capital improvements, the Department's application for federal funds included a proposed construction schedule and an initial operating plan. Under the Department's construction schedule, the final engineering design for track infrastructure and the train maintenance facility, as well as the development of specifications for the passenger car sets and locomotives, would begin immediately upon final approval of the funds. In addition, the Department would initiate the environmental analysis for the train stations, in cooperation with the affected municipalities. Track and crossing construction would begin late

in 2010, with the goal of completing track and station construction and passenger car acquisition by the beginning of 2013. The acquisition of next generation locomotives and the installation of positive train control systems would be completed by the beginning of 2016.

With the completion of track and station construction, passenger rail service could begin in 2013, but the operating speed would likely be limited to 79 miles per hour (the current limit for most Amtrak rail service) until the installation of positive train control systems has been completed. Initially, the service would utilize existing locomotives supplied by Amtrak, until the new locomotives are acquired in late 2015. With the acquisition of new locomotives and the installation of positive train control systems by the end of 2015, trains could travel at a maximum speed of 110 miles per hour, although higher levels of freight traffic between Watertown and Milwaukee may limit the top speed to 90 miles per hour in some places in that segment.

Under the Department's operation proposal, the Milwaukee to Madison service would be an extension of the current Hiawatha service between Chicago and Milwaukee. Accordingly, of the seven daily round trips between Chicago and Milwaukee, six would extend to (or originate in) Madison. Once the service is ready for high-speed operation, it is anticipated that the trip between Milwaukee and Madison would take about one hour and 14 minutes (or somewhat less for express routes).

As with the current Hiawatha service, it is anticipated that the operating costs of the Milwaukee to Madison extension would be paid from a combination of ticket and concessions revenue and state funds. In cooperation with the Department, Amtrak conducted a preliminary operation and financial analysis of the proposed extension route to estimate ridership and anticipated subsidies. Under this analysis, it was assumed that the one-way fare would be established at between \$20 and \$33 and the service would require an initial operating subsidy of \$7.5 million in 2013 dollars, in addition to any subsidy required to maintain the Chicago to Milwaukee service. In the first year of operation, it was estimated that the service would serve 361,400 passengers. Subsidies in future years would depend, to some extent, upon the continued development of rail service in this and other states. It is anticipated, for instance, that ridership on the Madison to Milwaukee route would increase if passenger rail service from the Chicago hub (like Chicago to St. Louis and Chicago to Detroit) is expanded or improved.

The actual fares charged would be determined by Amtrak in consultation with DOT. The Department indicates that fares would not be established (and are not established for current routes such as the Hiawatha service) at a level to minimize the amount of subsidy. Rather, they are generally established at a level to encourage use of the service and to maintain a reasonable cost for moderate income travelers.

Under Act 28, the Legislature provided a total of \$8,232,000 in 2009-10 and \$8,682,100 in 2010-11 for the state's share of the cost of subsidizing the Hiawatha service between Chicago and Milwaukee. Of this amount, \$6,442,800 annually was provided in the Department's rail passenger service appropriations and the remainder (\$1,789,200 in 2009-10 and \$2,239,300 in 2010-11) was

placed in the Joint Committee on Finance's supplemental SEG appropriation. At the time of the Committee's deliberations on the budget, the actual costs were unknown, so an amount was reserved to provide a supplement to the base appropriation, including an estimated \$690,000 annually to provide for an additional passenger car for the service. The actual cost of the state's contract with Amtrak for the service in 2009-10 is now estimated at \$5,528,900, with a maximum cap of \$6,000,000, an amount that includes the cost of an additional train car. Consequently, the Department will not need a supplemental appropriation for the cost of the service in 2009-10.

## **ANALYSIS**

Approval of the Governor's request for \$810 million for the Milwaukee to Madison high-speed rail project would allow the Department to proceed with work on the project, with the goal of initiating service in January, 2013. Upon completion, if approved, it is anticipated that the service would require state funding to cover a portion of the service operating costs. Although Amtrak has developed a preliminary estimate of this subsidy (\$7.5 million, in addition to the current subsidy for the current Hiawatha service), the amount of the subsidies is unknown and would depend upon various factors, such as ticket prices and the development of other train service from the Chicago hub. If the Governor's request is denied, the Department could not proceed with the project and the state would not face the future cost of a route subsidy. It is likely, in this instance, that the FRA would provide the grant funds to a passenger rail project or projects in other states.

The Department's request for federal funds was based on preliminary cost estimates and included a 30% contingency for key elements. Although the state received \$7.6 million less than the amount requested, the Department indicates that it would proceed with the project with the goal of completing it using the amount received. In its application for federal funds, the Department indicated that any costs above the \$810 million received could be paid for with \$72.0 million in authorized passenger rail development bonds, although the Committee would have to approve the use of those bonds for that purpose.

If the project costs less than the amount awarded, it is anticipated that the Federal Railroad Administration would apply the savings to other high-speed rail projects. However, some details as to how to treat any savings have not been finalized. It remains unclear, for instance, if FRA would allow any savings on one part of the project to be used for other elements of the same project, such as passenger stations.

## **ALTERNATIVES**

1. Approve the Governor's request for \$810 million in federal stimulus funds for the Milwaukee to Madison high-speed passenger rail project.
2. Deny the request.

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