

National Capital Region Transportation Planning Board

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M E M O R A N D U M

TO: TPB Technical Committee

FROM: Eric Randall
Department of Transportation Planning

SUBJECT: Proposed Task Force and Work Plan for an Assessment of Bus On Shoulder (BOS) Feasibility in the Washington Metropolitan Region

DATE: August 31, 2012

At the July 18, 2012 meeting of the Transportation Planning Board (TPB), it was requested that a task force be established to identify promising locations in the region to operate buses on the shoulders of highways. This memo proposes the membership for the task force and a work plan and schedule for coordinating an assessment of the experience and potential for Bus On Shoulder (BOS) operations on the region's freeways and major arterials. As requested by the TPB, this task force will bring together the stakeholder agencies, including transit operators, departments of transportation, and local jurisdictions, to review local and national experience with BOS and discuss its applicability in the region. The task force will oversee a preliminary scoping of potential locations for BOS, including a preliminary benefit-cost analysis of implementing BOS, for both current and potential bus service.

Proposed Task Force Membership

The regional assessment of BOS feasibility will be coordinated through a series of meetings, with necessary work assigned through discussion.

The meeting co-Chairs will be Ms. Carol Krimm, of the City of Frederick Board of Aldermen, and Mr. Chris Zimmerman, of the Arlington County Council. Other prospective members will be invited from the following:

<i>Departments of Transportation</i>	<i>Transit Operators</i>	<i>Jurisdictions</i>
<ul style="list-style-type: none"> • District of Columbia (DDOT) • Maryland (MDOT) • Virginia (VDOT) 	<ul style="list-style-type: none"> • WMATA • PRTC • MTA Commuter Bus • Loudoun Transit 	<ul style="list-style-type: none"> • Fairfax County • Frederick County • Montgomery County • Prince George's County • Others...

The first meeting of the task force would be held at 10:00 AM on Wednesday, October 17, 2012, prior to that day's TPB meeting.

Background on the Bus On Shoulders (BOS) Concept and Experience

BOS is an arrangement by which buses providing public transportation service operate on designated highway shoulders, when safe and practical to do so, in order to circumvent peak traffic congestion. As described in the just published Transit Cooperative Research Program (TCRP) Report 151: A Guide for Implementing Bus On Shoulder (BOS) Systems:

“Typically, the BOS projects limit buses using the shoulder to times when traffic on the highway is congested and moving very slowly, and they cap the speed buses are allowed to operate on the shoulder.” (Page I-1). http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_151.pdf

Current local experience with BOS includes bus operation along a short section (1.3 mi) of VA-267 (the Dulles Toll Road), for bus access to the West Falls Church Metrorail Station, and along the shoulders of MD-29 near Burtonsville. In addition, bus service operated along the Maryland portion of the Capital Beltway in the vicinity of the American Legion Bridge was permitted to operate on shoulders; however, this service was discontinued in 2003. As described in the TCRP report, several other cities across the United States also have BOS service; of these, Minneapolis has the most-developed network with over 270 miles of BOS highways. As this region considers current and future travel needs, including expanded public transportation, the BOS concept may offer opportunity for relatively cost-effective improvements in bus service.

A review of the BOS concept and experience will also reinforce current work by the TPB. The TPB is in the second year of the Regional Transportation Priorities Plan (RTPP) study, with the purpose of identifying those transportation strategies that best promote the TPB’s goals for economic opportunity, transportation choices, system safety and efficiency, quality of life and environmental stewardship. Ultimately, it is envisioned that 10 to 15 strategies will be identified that the region can agree are the top priorities for addressing the most pressing regional challenges that the region faces in meeting the TPB’s goals.

One of the RTPP strategies now being refined is that of increasing the application of bus priority measures across the region, specifically: *“Apply operational management strategies including roadway treatments that speed up buses, traffic signal coordination, and low-cost improvements that alleviate choke points.”* Bus On Shoulders is one concept that falls under this strategy, and also reinforces the TPB’s previous efforts in bus priority, including the WMATA Priority Corridor Network Plan Study, the publication of the *Priority Bus Treatments Guidelines*, and the Multimodal Coordination and Bus Hot Spots study, as well as the ongoing TIGER Grant for Priority Bus Transit.

Proposed Work Plan

The task force will hold at least three meetings and review technical research, transportation data analysis, and benefit-cost analysis of selected locations. TPB staff will coordinate the collection of information and the development of supporting analyses with input and assistance from stakeholder agency staff.

Task 1 – Summary of Local and National Experience with Bus On Shoulders

Experience with current and previous BOS experience in the region will be summarized. In particular, the safety, roadway engineering, and bus service operations aspects will be evaluated by the respective

agencies. In addition, a summary of national experience and its applicability and use in this region will be prepared and reviewed. This information will be used as a resource for discussion and development of the assessment.

Task 2 – Assessment of the Feasibility of BOS at Specific Locations

Stakeholder agencies will identify potential corridors for BOS operation on the region’s highway network, based on current and potential bus service, existing traffic conditions, and current and anticipated travel demand. This information will be used to screen out infeasible locations and to identify the most likely corridors for effective BOS operation.

Task 3 – Analysis of Selected Locations in the Region

Using the results of Tasks 1 and 2, the TPB staff, with assistance from the respective highway and transit agencies, will conduct an analysis of the feasibility of BOS on selected corridors in the region. This analysis will include:

1. Identify issues and challenges with safe operation,
2. Develop capital cost and operating cost inputs, as provided by the stakeholder agencies.
3. Assess travel time savings and ridership demand based on current and projected highway congestion, including access between the highways and origins and destinations,
4. Develop a list of locations for further analysis,
5. Conduct a benefit-cost analysis of the prospective benefits to riders and traffic relative to the projected costs of BOS service, on the selected corridors.

For each task, technical memoranda summarizing the results will be prepared, with supporting presentations for the task force. In addition, periodic updates will be provided to the TPB, the TPB Technical Committee, the TPB Management, Operations and Intelligent Transportation Systems (MOITS) Subcommittee, and the TPB Regional Bus Subcommittee. A final presentation to the TPB is proposed for its May 2013 meeting.

The proposed schedule of work is shown below:

Proposed Schedule										
Tasks	2012				2013					
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Task 1										
Summary of Local and National Experience with Bus On Shoulders										
Task 2										
Assessment of the Feasibility of BOS at Specific Locations										
Task 3										
Analysis of Selected Locations in the Region										
Meetings		▲			▲			▲		
Technical Memoranda			■		■			■		

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