TPB Task Force
for
Bus On Shoulders (BOS)

TPB Regional Bus Subcommittee
September 25, 2012

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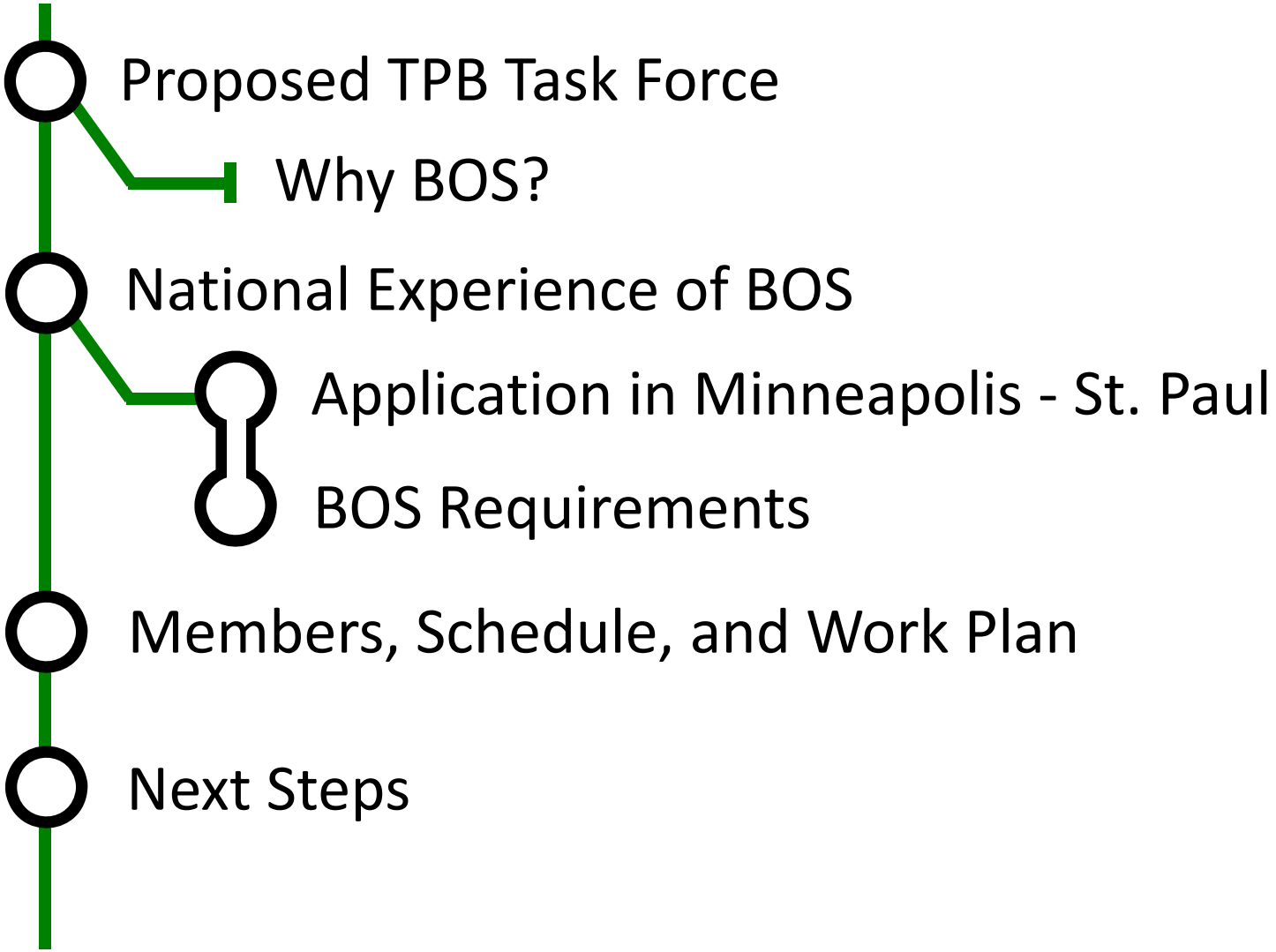
Structure of Presentation



TPB Task Force on BOS

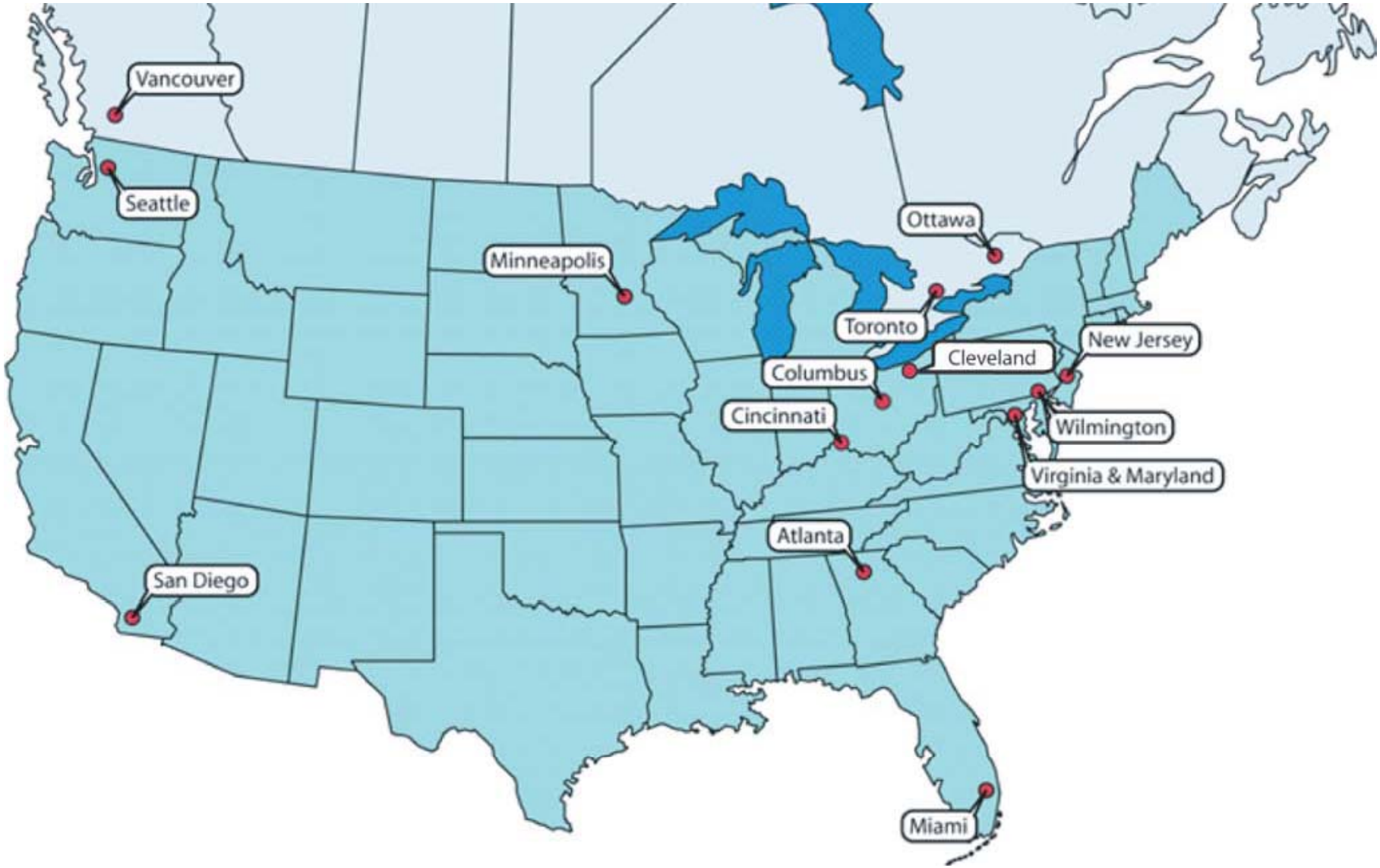
- At the July 18, 2012 meeting of the Transportation Planning Board (TPB), it was requested that a task force be established to identify promising locations in the region to operate buses on the shoulders of highways.
- The proposed membership, work plan, and schedule were approved at the September 19 TPB meeting.

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.

Why BOS?

- Increased interest in regional transit network using the region's highway network.
  - Provide alternatives to single-occupancy vehicles and auto-dependency.
- Known congestion issues on region's highways.
  - I-495 Express Lanes in Virginia will provide managed right-of-way for bus, but need connections to make regional network effective.
- Modest experience in this region:
  - 1.6 mile section of Dulles Airport Access Road (VA-267) into West Falls Church Metrorail Station,
  - US-29 near Burtonsville, MD,
  - Previously, on Maryland portion of Capital Beltway (I-495) near the American Legion Bridge.
- Currently, VDOT is conducting a technical assessment of the feasibility of BOS along I-66.

National Experience



Application in Minneapolis-St. Paul

- Minneapolis-St. Paul is the leading example of BOS nationally:
  - ❖ Started in 1991; now a 280-mile network.
  - ❖ Add four to eight miles per year, at a cost of $150K - $250K per mile.
    - o Dedicated funding source of $1M/year.
  - ❖ 1700 bus trips a day using BOS (400 buses).
  - ❖ Rider perception of time savings is 2X greater than actual.

BOS Requirements in Minneapolis – St. Paul

When is traffic congested enough for shoulder use?

- Delays (traffic at less than 35 mph) at least once a week.
- Area is used by 6+ buses a day.
- Must save a bus 8+ minutes per mile per week in travel time.

Bus drivers:

- Must not use the shoulder when traffic is moving faster than 35 mph.
- Cannot exceed the speed of traffic by more than 15 mph; max. speed is 35 mph.
- Must yield to any vehicle entering the shoulder, including at freeway ramps or intersections.
- Must join regular lanes when the shoulder is blocked by stalled cars or debris.

Why only Transit Buses?

- Professional drivers accountable to operating rules and trained to handle complex driving decisions while driving on the shoulder.
- Large transit buses can be seen by other motorists and the drivers sit high enough to see potential hazards.
- Shoulder use is limited to a small number of vehicles and those vehicles are transit buses that directly help to reduce congestion.

TPB Task Force: Members and Schedule

Departments of Transportation

- District of Columbia (DDOT)
- Maryland (MDOT)
- Virginia (VDOT)

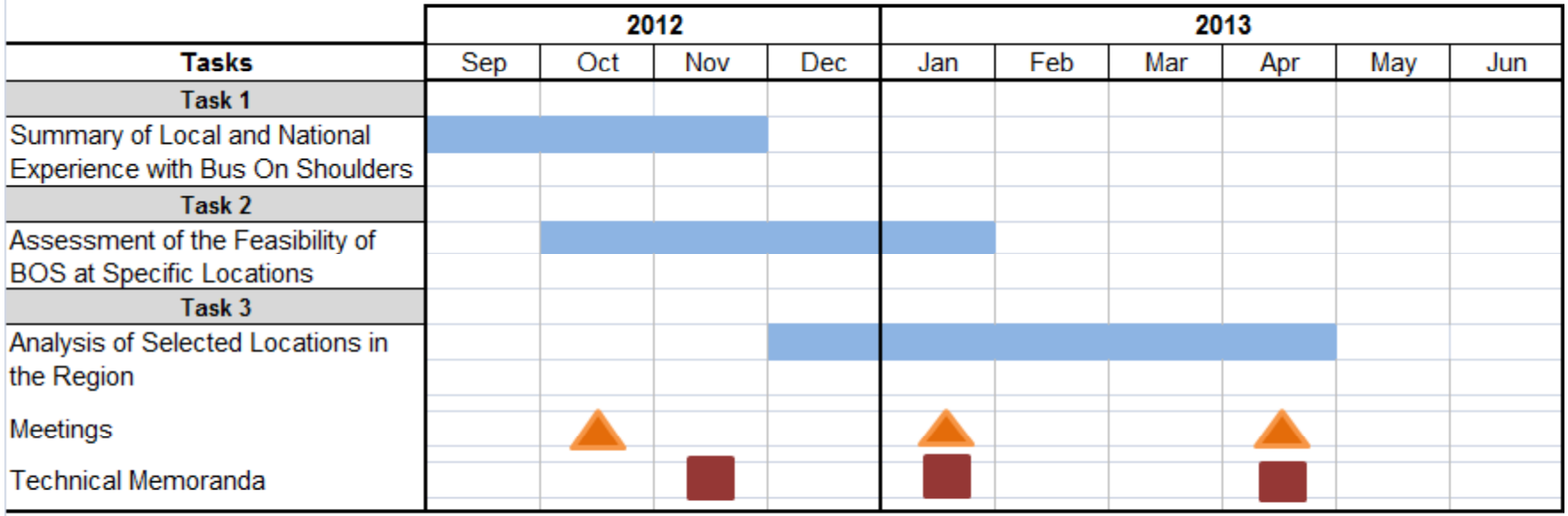
Transit Operators

- WMATA
- PRTC
- MTA Commuter Bus
- Loudoun Transit

Jurisdictions

- Fairfax County
- Frederick County
- Montgomery County
- Prince George's County
- Others…

Schedule



9/19/2012

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

- Evaluate experience with current and previous BOS experience in the region, including factors such as:
  - Operations for bus and general traffic
  - Roadway Design & Engineering
  - Safety
  - Legislation / Policy
  - Implementation / Funding

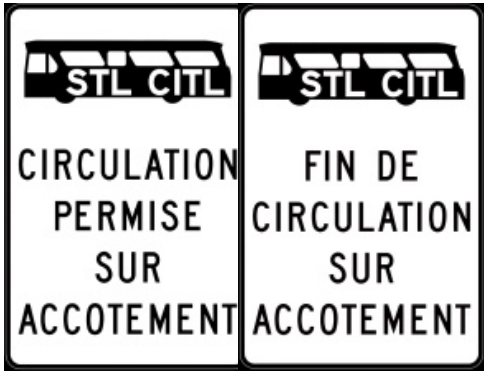
- Prepare a summary of national/international experience and its applicability in this region.

http://www.dot.il.gov/busonshoulder/index.html

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:
  1. existing highway congestion locations,
  2. current bus service, and
  3. highway shoulder conditions.
- Objective is to identify potential corridors and bus routes for further analysis; screen out infeasible locations.

Task 3 – Analysis of Select Corridors/Routes in the Region



At a regional level and for specific corridors/routes, a review and analysis will be conducted to:

- Identify issues and challenges with safe operation,
- Develop capital cost and operating cost inputs,
- Determine potential travel time savings and benefits for bus routes based on highway congestion,
- Present a benefit-cost analysis of the prospective benefits relative to the projected costs of implementation of BOS service.

Next Steps

- First task force meeting is scheduled for Wednesday, October 17 (morning of the TPB meeting).
  - Meeting will include presentation of the initial results for Task 1 - Summary of Local and National Experience.


Questions?
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metrobus