

I-40 Regional Partnership: Bus on Shoulder Systems initiative

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Durham City Council

I-40 Regional Partnership

Overall Purpose

- Provide an ongoing focus on Interstate 40
 - the Triangle's most critical freeway –
 - in order to maintain its long-term viability

I-40 Regional Partnership

Framework

- Cooperative initiative of NCDOT and local, regional, state, and national partners
- Focusing on both immediate and longer-term items
- Bus on Shoulder Systems (BOSS) has been a primary emphasis of the Partnership

Bus on Shoulder Systems (BOSS)

“Bus on Shoulder” operation

- Operation of public transit buses on shoulder at low speeds during periods of congestion

“Bus on Shoulder Systems (BOSS)”

- A network or system is our goal for bus shoulders

Bus on Shoulder Systems (BOSS)

Began in MN Twin Cities in early 1990s

- Goal was innovative, cost-effective way to move more people through congestion
- Attracts patrons, saves time, avoids congestion, saves transit operating costs, low capital costs
- Our program will have similar goals as MN
- Our operating rules will be based on MN experience

Bus on Shoulder Systems (BOSS)

Basic operating rules for N.C. pilot program

- Buses can only use shoulder when travel speeds in main lanes are **below 35 MPH**

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- Buses cannot travel more than **15 MPH** faster than other vehicles

If travel speeds in main lanes are:

65 MPH, 55 MPH, even 35 MPH

20, 25, 30, up to 35 MPH

15 MPH

10 MPH

Stopped (0 MPH)

Then transit buses on shoulder:

N/A: Cannot use shoulder

Can go up to 35 MPH

Can go up to 30 MPH

Can go up to 25 MPH

Can go up to 15 MPH

Bus on Shoulder Systems (BOSS)

Basic operating rules for N.C. pilot program

- Buses can only use shoulder when travel speeds in main lanes are **below 35 MPH**
- Buses **cannot travel more than 15 MPH faster** than other vehicles
- Bus on shoulder operation is a **subservient use**
 - Use of shoulder as a breakdown lane for emergency operations continues as today
 - **Buses must yield to everything in the shoulder**
- Limited to **authorized transit buses**

Bus on Shoulder Systems (BOSS)

Basic operating rules for N.C. pilot program

- Minnesota uses only 3 simple signs, and no special pavement markings at all
- We will follow a similar, simplified signing plan here



Bus on Shoulder Systems (BOSS)



San Diego



Minnesota



Minnesota

Bus on Shoulder Systems (BOSS)

Around 12 states have active programs

Northeast/Mid-Atlantic: NJ, DE, VA, MD

South: FL, GA

Midwest: MN, OH, IL, KS

West: CA, WA

NC BOSS – Summary of progress

- We have been researching for more than 1.5 years
- Minnesota alone has about 300 shoulder miles
- Currently 12+ states with bus shoulder program
- Telepresence conference with MN, OH colleagues in August 2011 to answer safety etc. Qs
- MN visit to see system first-hand in Oct-Nov 2011
- BOSS Team partners provided great feedback
- Pilot implementation on I-40 in Durham Co. in 2012

NC BOSS Pilot Segments

- ❑ Westbound I-40: NC 147 to US 15-501
- ❑ Eastbound I-40: US 15-501 to Page Road
- ❑ Both pilot segments located entirely within Durham County

letsgetmoving.org/bossmap

NC BOSS Update

- Remaining milestones prior to pilot launch:
 - Complete NC BOSS Implementation/Operations Plan
 - Develop pilot communications, enforcement protocols
 - Implement BOSS training for Triangle Transit drivers
 - Create signage and prepare corridor for BOSS operation
 - Implement public education and outreach program
 - Development of pilot project evaluation framework by NCDOT and Triangle Transit

NC BOSS Update

- ❑ Launch date will occur during first half of 2012
- ❑ Date determined by consensus of BOSS Team

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