

Bus Rapid Transit Update

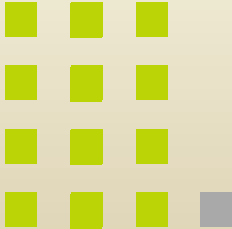
East County Science Center Master Plan



Maryland - National Capital Park
and Planning Department

Citizen Advisory
Committee Meeting

Sept 20, 2011



Montgomery County
Planning Department





The Proposed Network

Route	From	To	Route Length (miles)	Number of Stations
MD 586/Veirs Mill Road	Rockville Metrorail Station	Wheaton Metrorail Station	6.7	11
Georgia Avenue North	Montgomery General Hospital	Wheaton Metrorail Station	9.8	12
Georgia Avenue South	Wheaton Metrorail Station	Silver Spring Transit Center	3.9	6
Rockville Metrorail-Life Sciences Center	Life Sciences Center	Rockville Metrorail Station	5.3	7
MD 124/Muddy Branch Road	Lakeforest Mall	Life Sciences Center	7.2	10
MD 185/Connecticut Avenue	Georgia Avenue and Bel Pre Road	Medical Center Metrorail Station	9.5	10
MD 355 North	MD 355 and Stringtown Road	Rockville Metrorail Station	14.6	16
MD 355 South	Rockville Metrorail Station	Bethesda Metrorail Station	8.8	13
MD 650/New Hampshire Avenue	White Oak Transit Center	Fort Totten Metrorail Station	8.8	9
Montgomery Mall/ Old Georgetown Road	Montgomery Mall Transit Center	Bethesda Metrorail Station	6.9	9
Randolph Road	White Flint Metrorail Station	Glenmont Metrorail Station	5.5	7
MD 193/University Boulevard	Wheaton Metrorail Station	Takoma/Langley Park Transit Center	6.4	9
US 29/Columbia Pike/Colesville Road	Burtonsville Park-and-Ride Lot	Silver Spring Transit Center	13.5	11
ICC	Life Sciences Center	Briggs Chaney Park-and-Ride lot	22.9	3
North Bethesda Transitway	Montgomery Mall Transit Center	Grosvenor Metrorail Station	5.1	7
Midcounty Highway	Snowden Farm Parkway and Stringtown Road	Shady Grove Metrorail Station	13.4	10
Total			148.3	150





Ridership: Daily and By Route Mile – Preliminary Results

Route Name	Daily Boardings	Daily Boardings/ Route Mile	Required Peak Headway	% of 2040 Achieved w/ 2020 LU
MD 355 South	28,200 - 35,300	3,600 - 4,500	2.8 - 2.3	72%
Randolph Road	16,000 - 20,000	3,500 - 4,400	3.9 - 3.2	82%
MD 97/Georgia Avenue South	10,500 - 13,100	3,000 - 3,800	3.0 - 2.5	92%
MD 355 North	37,600 - 47,000	2,700 - 3,400	2.4 - 2.0	72%
North Bethesda Transitway	8,200 - 10,200	2,700 - 3,400	4.6 - 3.8	80%
MD 193/University Boulevard	14,600 - 18,300	2,300 - 2,900	2.9 - 2.5	84%
Rockville Metro-LSC	10,000 - 12,500	2,100 - 2,600	5.9 - 4.9	77%
MD 586/Veirs Mill Road	12,700 - 15,900	2,000 - 2,500	6.1 - 5.1	84%
Lakeforest Mall/Muddy Branch Road	9,400 - 11,700	1,600 - 2,000	6.5 - 5.4	73%
MD 187/Old Georgetown Road	7,700 - 9,600	1,500 - 1,900	7.0 - 5.8	95%
MD 97/Georgia Avenue North	14,700 - 18,400	1,500 - 1,900	3.1 - 2.6	88%
MD 650/New Hampshire Avenue	10,600 - 13,200	1,400 - 1,800	5.2 - 4.3	81%
US 29	14,700 - 18,400	1,200 - 1,500	3.1 - 2.6	92%
MD 185/Connecticut Avenue	6,600 - 8,300	800 - 1,000	5.7 - 4.7	94%
Mid-County	6,700 - 8,400	600 - 700	6.8 - 5.7	83%
ICC	4,900 - 6,100	200 - 300	8.1 - 6.8	44%
	213,100 - 266,400	1,600 - 2,000		80%





BRT Elements

Stylish Vehicles

- Easy, low-floor boarding
- Comfortable interiors
- Modern and sleek design
- Multiple wide doors



MAX BRT vehicle with multi-door level boarding (Las Vegas, NV)

MetroRapid station (Los Angeles, CA)



Attractive Stations

- Comfortable
- Attractive
- Accessible and Welcoming



BRT Elements (continued)

Guideways and rights-of-way

- Separating BRT vehicles from other traffic increases speed and reliability.
- Several options
 - Exclusive bus ways
 - Bus only lanes
 - Mixed flow lanes with queue jumpers
- Assume guideways constructed within right-of-way, except at intersections



Rendering of Silver Line BRT in bus-only lane (Boston, MA)



Guided busway (Leeds, London)



BRT Elements (continued)

Faster Fare Collection

- Collect fares at stations (not on bus)
- All door BRT boarding speeds trips
- Compatible with Metro



Cleveland Healthline vending machines



Metro SmarTrip fare pass



RAPID BRT information display (Phoenix, AZ)

Intelligent Transportation Systems

- Real time information
 - At stations, via cell phone/PDA, or on internet
 - Provide next bus arrival, delay, trip planning information

TTF Work Group D RTV System Routes Recommendation



Features

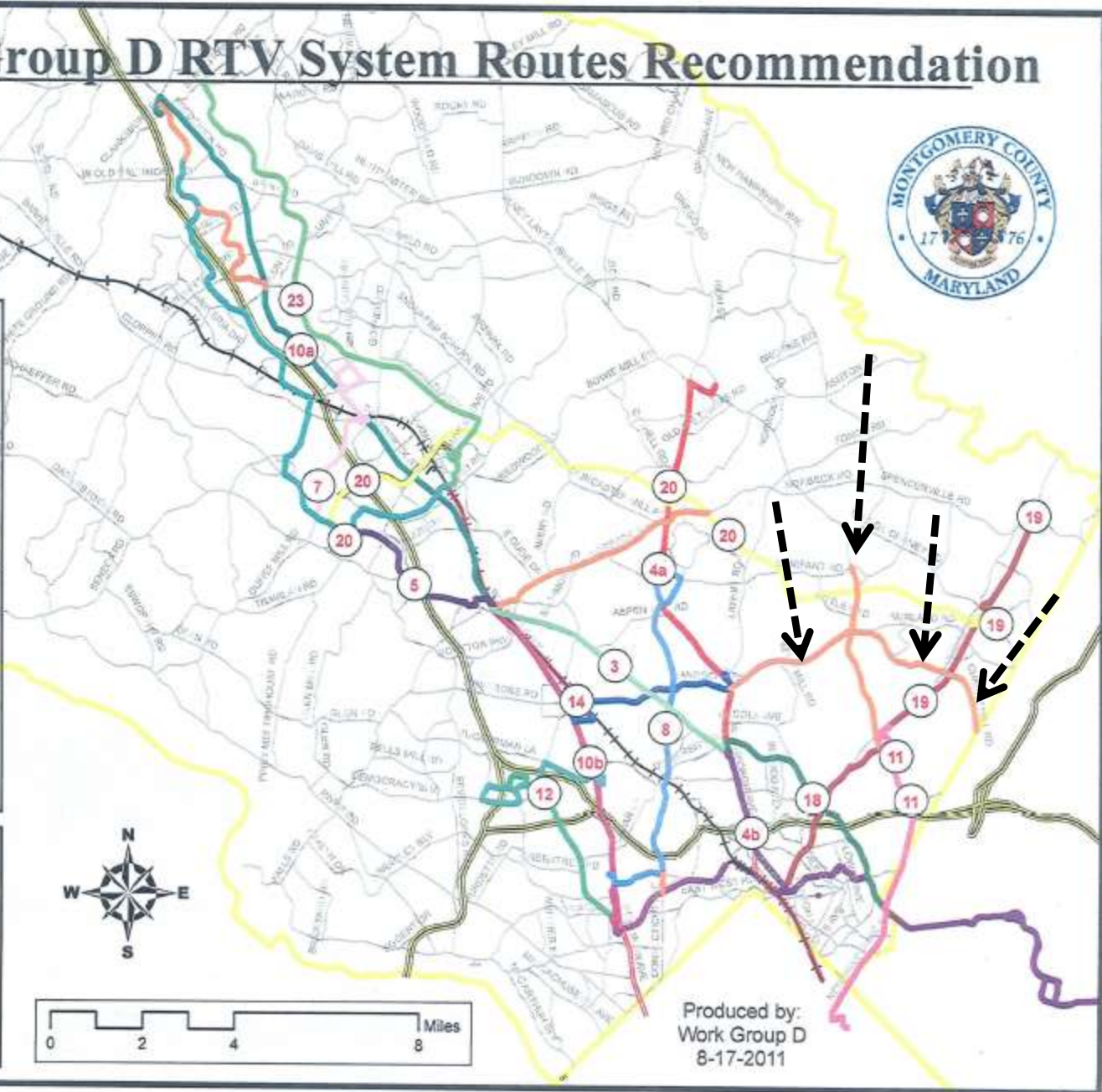
- Red Line - Metro
- MARC
- CCT
- Purple Line

PB Proposed Routes

- 10a - MD 355 North
- 10b - MD 355 South
- 11 - FDA Loop
- 11 - MD 650/NewHampshire
- 12 - Montgomery Mall/Old Georgetown Road
- 14 - Randolph Road
- 18 - MD 193/University Boulevard
- 19 - US 29/Columbia Pike/Colesville Road
- 20 - ICC 1
- 20 - ICC 2
- 20 - ICC 3
- 20 - ICC Spur
- 21 - North Bethesda Transway
- 23 - Mid-County Highway
- 3 - MD 586/Viers Mill Road
- 4a - Georgia Avenue (North)
- 4b - Georgia Avenue (South)
- 5 - Gude Drive/Key West Avenue
- 7 - MD 124/Muddy Branch Road
- 8 - MD 185/Connecticut Avenue

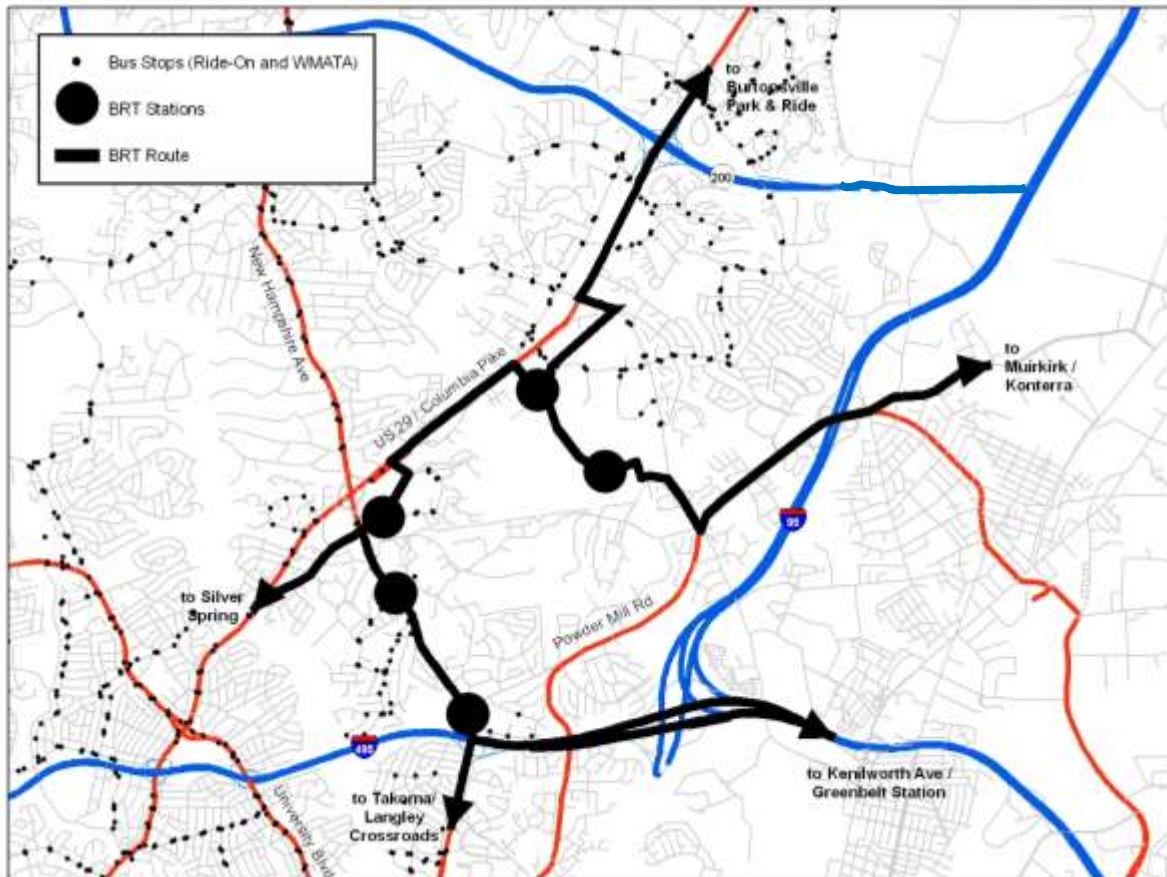
Route Additions to PB Study

- CCT_ComSal_to_Clarksburg
- Observation_Middlebrook_to_CCT_via_MCC
- SR25_Rockville_to_ICC
- Randolph_Rd_GA_to_NH
- Randolph_Rd_NH_to_29
- Cherry_Hill_to_PG
- SR650_White_Oak_to_ICC
- SR185_CT_Jones_Bridge_to_Purple_Line



Produced by:
Work Group D
8-17-2011

Early Concept BRT Network for ECSC



“K” Configuration

- US 29
- NH Ave
- Powder Mill Rd to MARC
- Cherry Hill Rd / US 1 / I-495 to Greenbelt Metro

Scope of Work

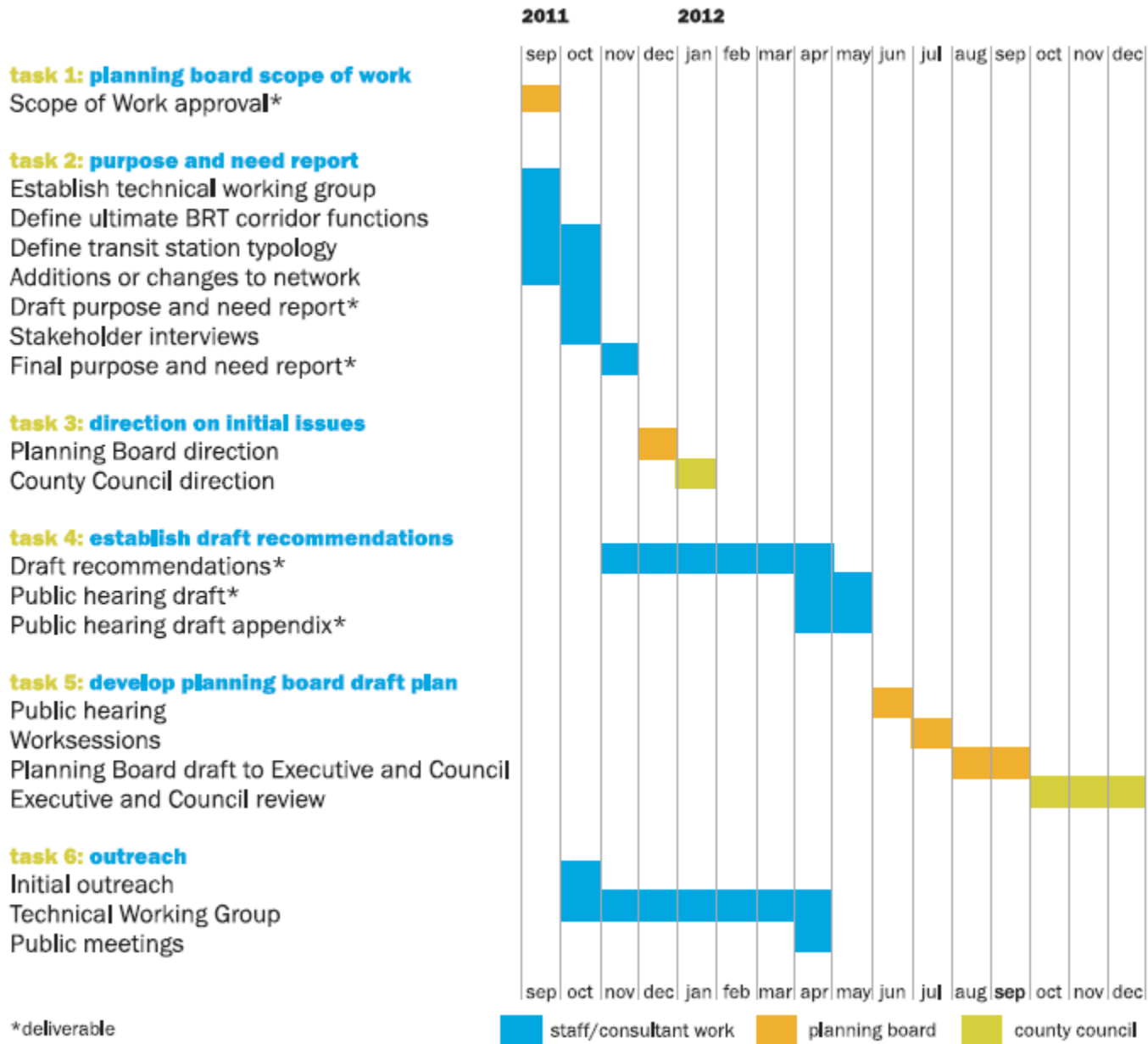
master plan of highways bus rapid transit amendment

September 2011



Montgomery County Planning Department
M-NCPPC
MontgomeryPlanning.org

BRT amendment proposed schedule



*deliverable