



**MULTIMODAL TRANSPORTATION BOARD
MINUTES**

May 22, 2018 at 7:00 p.m.

Members Present: Jason Quan, Vice Chair **Staff:** Clive Graham, Executive Secretary
David Zinner Rashidi Jackson, Office of Transportation
Astamay Curtis David Cookson, Office of Transportation
Brian Dillard Phil Nichols, County Administration
Larry Schoen Terri Hansen, Community Resources &
Services
Chris Bell, AECOM

Members Excused: Alice Giles
Ron Hartman
Rick Wilson

1. **Approval of the April 24, 2018 Minutes** (minute 01¹)

Jason Quan moved to approve the minutes of the April 24, 2018 meeting and Astamay Curtis seconded the motion. Dave Zinner noted that the word “few” should be removed from the TDP announcement section at the third paragraph. The minutes were approved by a vote of 5-0.

2. **Public Comments** (minute :02)

There were no public comments.

3. **Announcements/Updates** (minute :02)

Clive Graham, Office of Transportation (OoT) Administrator made the following announcements:

i. Transit Development Plan (TDP) (minute :03)

Clive said that the County Council endorsed the TDP on May 7, 2018. There was a major amendment requested by Councilmember Terrasa to include a section on bus stops in the plan. Clive said he would share the section with the Multimodal Transportation Board (MTB). Clive added that with the approval of the TDP, implementation can now be started. An implementation meeting was held on May 22nd. There will be public hearings regarding the TDP in late November/ December, with the hopes of starting the new routes in April 2019. The TDP is posted on the OoT webpage at the following address:
<https://www.howardcountymd.gov/Departments/County-Administration/Transportation/Transportation-Projects>

¹ Minute references are to the meeting audio recording; see link on the Multimodal Transportation Board webpage.

ii. Office of Transportation Advisory Groups (minute :20)

There were no updates for the Advisory groups. They will be meeting next in June and July 2018.

iii. US 1 Safety Evaluation (minute :21)

Clive said the OoT is currently waiting on the consultant's (Sabra Wang) safety evaluation draft that will be shared with the MTB once it is received.

iv. RTA Fares Policy (minute :10)

Clive said the County Executive approved the new fare change policy on May 8, 2018. The only change was the paratransit fares would be increased over a two-year period.

v. Patuxent Branch Trail- Storage facility (minute :22)

Phil Nichols, of County Administration, said that several agencies are coordinating to build a separate trail along Old Guilford Road.

vi. Land Development Process (minute :25)

David Cookson gave a summary of land development projects that the OoT is reviewing (see meeting handout).

vii. Downtown Columbia Transportation Demand Management Plan (minute :34)

Clive said the OoT has been working on this plan the past two years and there is now a full which will be presented to the MTB at the June 28 meeting. There is a public meeting scheduled for July 10th at the community room at Merriweather to receive public input on the plan.

4. **Old Business** (minute :35)

Multimodal Transportation Board Role (minute :35)

The Board decided to discuss this topic after the Bus Rapid Transit (BRT) presentation, time permitting.

5. **New Business** (minute :36)

Bus Rapid Transit (BRT) -ridership analysis (minute :36)

David Cookson, OoT Planning Manager introduced Chris Bell from AECOM who would helping David present BRT ridership analysis. Chris is the lead technical advisor on the BRT project. The presentation covered the following (see meeting materials for a slide presentation:

- Purpose of BRT
- BRT Dedicated Right of Way
- Off Board Fare Collections
- BRT Intersections
- Platforms- Level Boarding
- Routes and Service
- BRT Planning in Howard County- Concept Study, Phase 1 and Phase 2 studies

- 2035 BRT Summary Statistics (Trips to/from BMC Region)
- US 29 Corridor- Preliminary Results, Next Steps

6. **Adjournment** (minute :122)

Jason adjourned the meeting at 9:02 pm. The next MTB meeting is scheduled for **June 28, 2018 at 7:00 pm.**

Clive Graham

Clive Graham
Executive Secretary

5/22/18

Date

Plan Review Updates for the MTB

5/22/2018

Plan Name	Plan Number	Description	Office of Transportation Comments	Plan Status / Next Steps
Hidden Ridge	F-18-081	This proposed development is located along Owen Brown Road (North of Cedar Lane & Owen Brown Intersection) and is in the R-SC (Residential Single Cluster) Zoning District. The developer is proposing 12 town homes and one open space lot in a forest conservation easement. The 12 town homes will be served by a 24'-26' Private Access Driveway with a T-Turnaround for emergency vehicles. The developer is providing sidewalks throughout the development with curb ramps and a marked crosswalk at the entrance. This location is currently served by the 404 and there are 2 bus stops to the north of the site along Sunny Spring.	Bike Howard calls for Bike Lanes along Owen Brown Road, however since the developers are not adding additional pavement to the existing road the Office of Transportation will explore the idea of a fee in lieu to substitute the bike improvements along Owen Brown Road. The Office of Transportation is recommending approval for this development.	Comments submitted by 4/24/18,. OOT recommended approval. If approved by DPZ, signature set will be submitted.
Rockburn Meadows	F-18-093	This proposed development is located along Bellanca Drive in Elkrige, and is in the R-20 zone. (Residential, with 20,000 square feet minimum). The developer is proposing six new single family homes, and one existing single family home that will be served by a Private Use In Common Driveway. The developer is providing sidewalks along the entire frontage on Bellanca Drive, and worked with the county to provide additional sidewalk to Montgomery Road. This will now provide a safe walk access for students attending Rockburn Elementary School. Bellanca Drive is not on the Bicycle Master Plan, and doesn't not receive bus service.	The Office of Transportation is recommending approval for this development.	Comments submitted 5/18/18. OOT recommended approval. If approved by DPZ, signature set will be submitted.
Oxford Square - Parcel HH - Bristol Court	SDP-18-055	Oxford Square is 90 acre mixed use project, located near the intersection Coca Cola Drive and MD 100, with a final build out of just under 1,500 residential units and ~190,000 square feet of commercial/retail space, and a public school, partially funded by the applicant. Typical of many large projects, the project is being delivered in phases via separate site plans for specific sections of the projects. These two site plans, Bristol Court and The Yards, when constructed, will include 409 apartment and 56 town houses. This project is designated as transit oriented development and is a County Green Neighborhood. As part of the project's original approval, the applicant will need to provide a pedestrian connection to the Dorsey MARC station and a shuttle.	As of submission of these site plans, the pedestrian connection to the MARC station and information on the shuttle service has not been delivered. The Office of Transportation is requesting resubmission with information on how these items will be delivered.	Comments submitted 4/19/18. Requesting resubmission
Oxford Square - The Yards	SDP-18-019			
Blue Stream	SDP-18-058	Blue Stream is a 76 acre project composed of multiple parcel. Blue Stream is located north of the intersection of US1 and Port Capital Drive and extends west to I95. Blue Stream has been in development since 1999, under sketch plan S-99-008, and is primarily residential with some commercial sites along the US 1 portion of the site. The plan proposes two apartment buildings, one wrapped around a parking structure, the other, standalone, totaling 156 units. There are also two commercial pad sites, a Starbucks and a two-story building with 24,000 square feet of commercial space. The Office of Transportation, in conjunction with DPZ Comprehensive and Community Planning, will seek improved pedestrian connections as well as transit-related improvements.	The Office of Transportation, in conjunction with DPZ Comprehensive and Community Planning, seeks improved pedestrian connections as well as transit-related improvements.	Comments submitted 5/21/18. Requesting resubmission

BUS RAPID TRANSIT

Multimodal Transportation Board

Howard Building

May 22, 2018

David Cookson



Howard County Office of Transportation

PURPOSE

- What is BRT
- Previous Planning efforts
- Update on Planning Efforts



BRT FUNDAMENTALS
DEDICATED RIGHTS OF WAY



BRT FUNDAMENTALS

OFF BOARD FARE COLLECTION



BRT FUNDAMENTALS

INTERSECTIONS



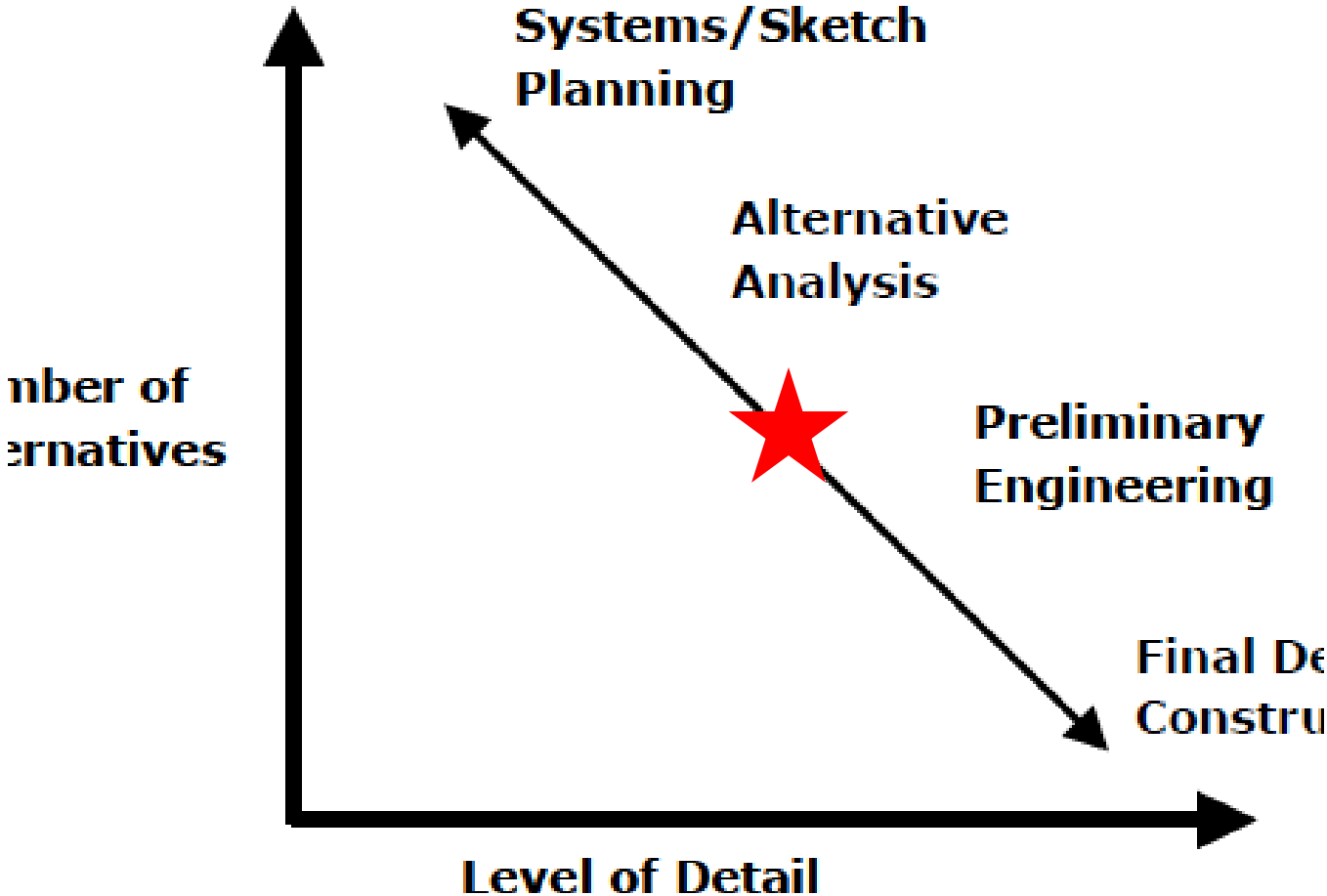
BRT FUNDAMENTALS

PLATFORM LEVEL BOARDING

BRT FUNDAMENTALS

- Routes and Service
 - Direct and more widely spaced stations
 - High frequency, turn up and go
 - Anchored by major activity centers
 - Major corridors-Where people are!
 - Feeder routes by local bus service, pedestrian and bike access

**BRT PLANNING
IN HOWARD
COUNTY**



BRT PLANNING IN HOWARD COUNTY

Concept Study

Phase I System Planning

Phase II A and B
System Planning/Alternatives

US 29 Corridor-Phase I and II

Regional Stakeholder Engagement

Environmental Studies

Engineering

ROW Acquisition

Construction-operations

Prepared By:



Howard County Department of
Planning & Zoning

The Traffic Group has designed Howard County's Phase I Rapid Transit Vehicle System (B.R.T.) with the following goals and attributes.

- Rapid
- Efficient
- Cost-effective – different cross section typicals
- Quickly constructed
- Little or no environmental impact if bridges are not built for the transit way
- Creative and Innovative (Example: Uses railroad right of way)
- Rapid Transit Technology – for vehicle and stations
- Traffic Engineering Problem Solving Techniques
- Little or No R.O.W. required
- Limited utility pole relocations

BRT PLANNING IN HOWARD COUNTY CONCEPT STUDY

Developed conceptual stations and alignments

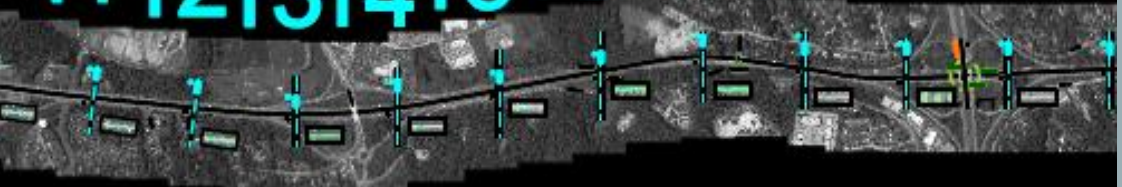
Guideway recommendations

Conceptual station locations

Developed opinion of probable cost-very unknown

No Ridership

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BRT PLANNING IN HOWARD
COUNTY
CONCEPT STUDY

MD29

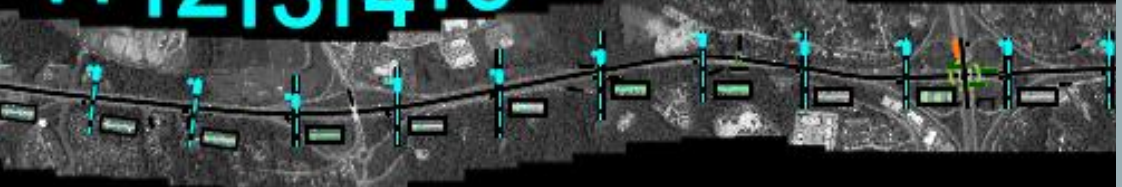
MD32

MD216

Broken Land Parkway

CSX ROW

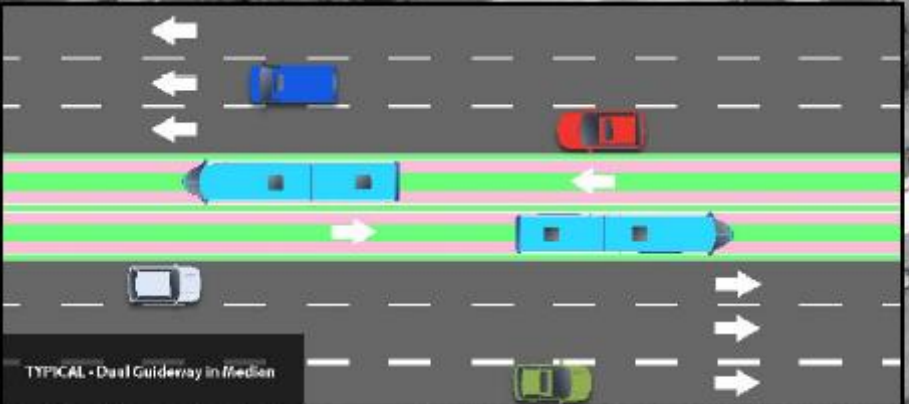
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29

Shaker Drive



US 29 Columbia Pike
 Burtonsville Park & Ride to Gales Lane
 HOWARD COUNTY, MARYLAND

SCALE 200 FEET



**BRT PLANNING IN HOWARD COUNTY
 CONCEPT STUDY**

BRT PLANNING IN HOWARD COUNTY COUNTY PHASE I STUDY

- Travel Forecasting Study
- BRT route evaluation
- Most viable networks
- Assumed: all day service, high frequency service, dedicated ROW

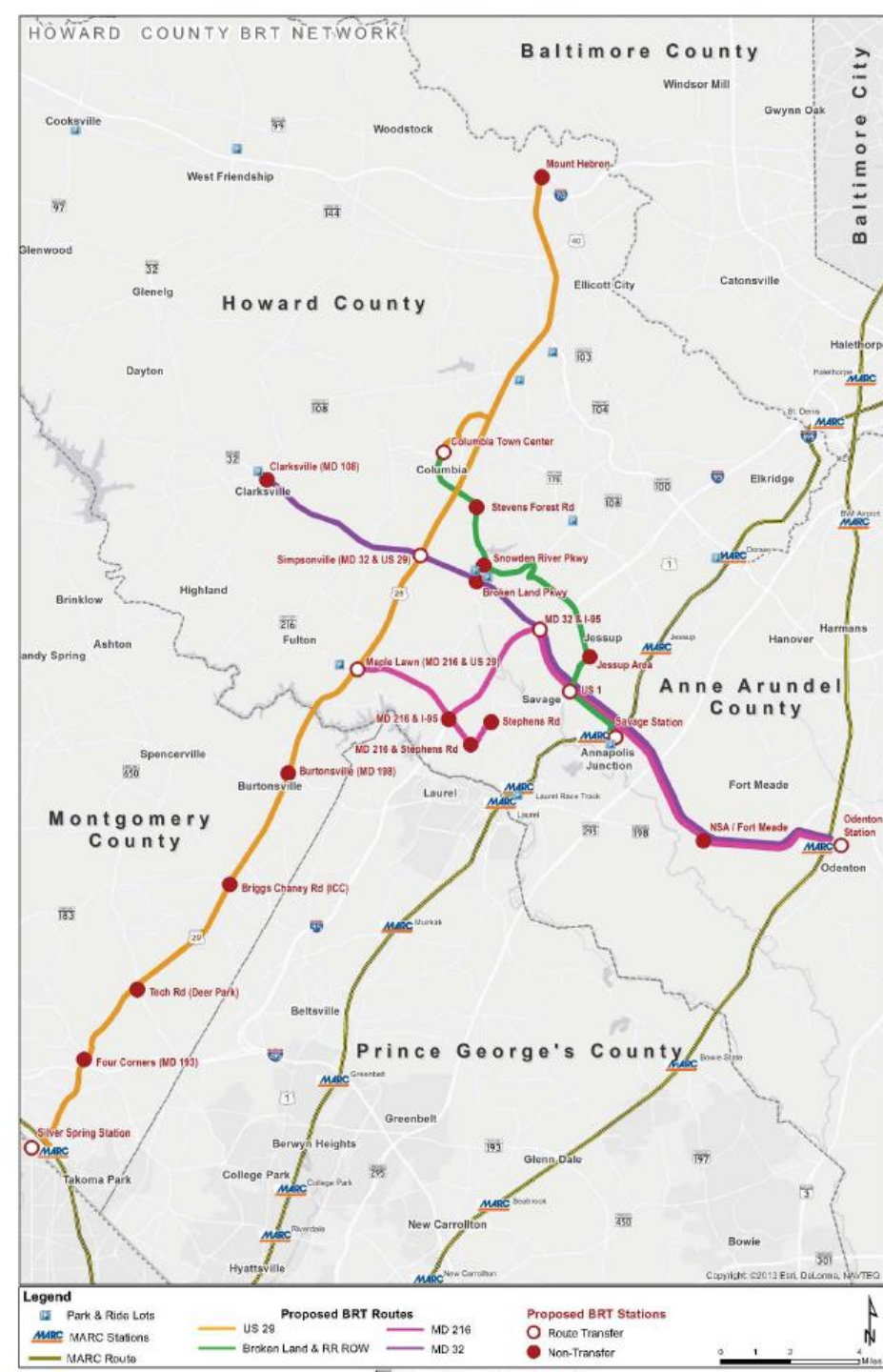


Countywide Bus Rapid Transit System
Travel Forecasting Study
October 2013



BRT PLANNING IN HOWARD COUNTY PHASE I STUDY

- US 29 between Mount Hebron and Silver Spring
- Broken Land Parkway between Columbia Town Center and Savage MARC Station
- MD 32 between Clarksville and Odenton Town Center
- MD 216 between Scaggsville and Odenton Town Center



BRT PLANNING IN HOWARD COUNTY PHASE I STUDY

- Average AADT reduction of 4.5% in Howard County and 3% in Montgomery County when compared to No Build year 2035 conditions.
- 2.5% more person-throughput in Montgomery County.
- Up to 23% faster travel time advantages between Burtonsville and Silver Spring
- A 500% increase in transit ridership when compared to current commuter bus ridership to and from Washington, DC.

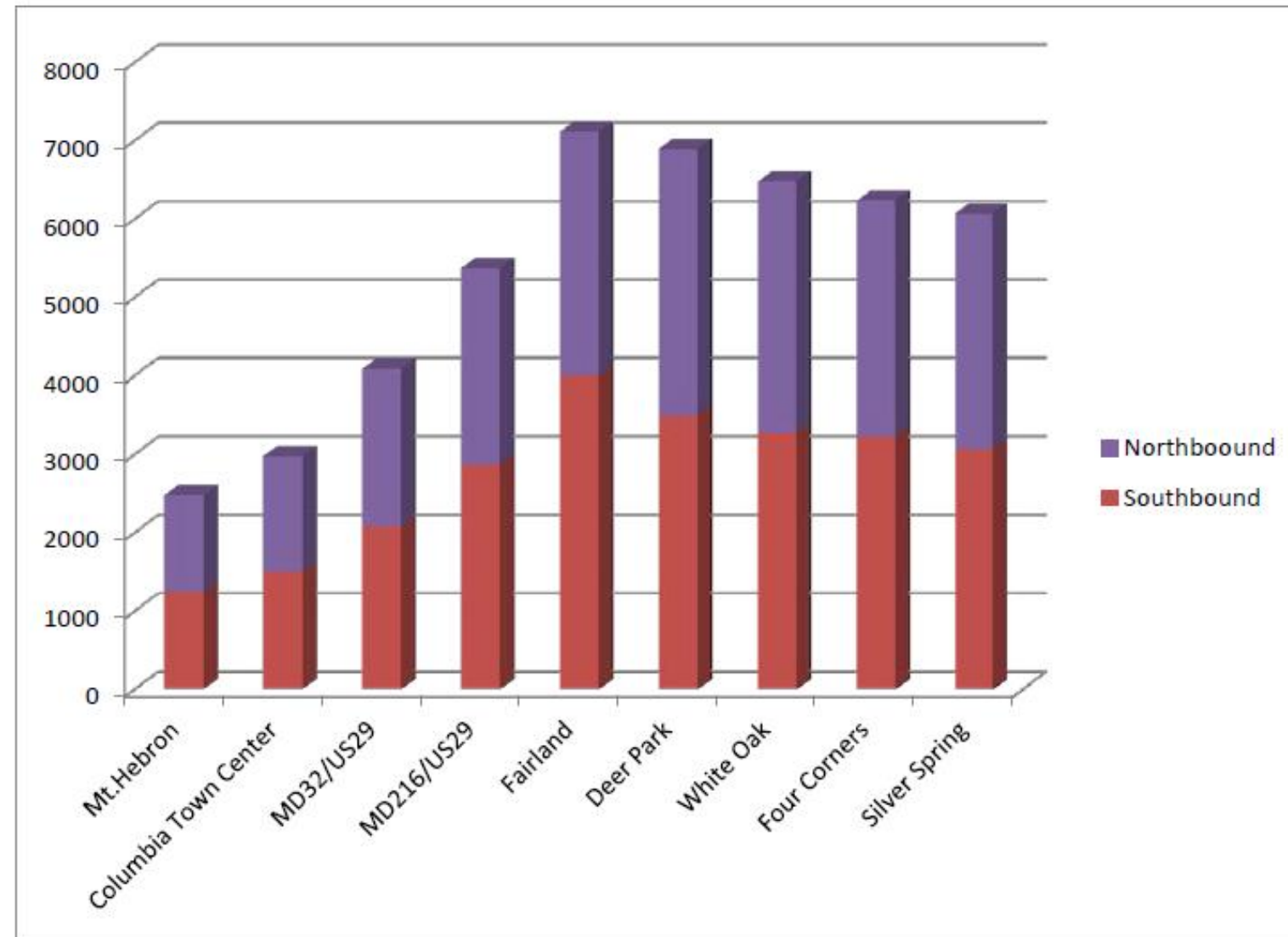


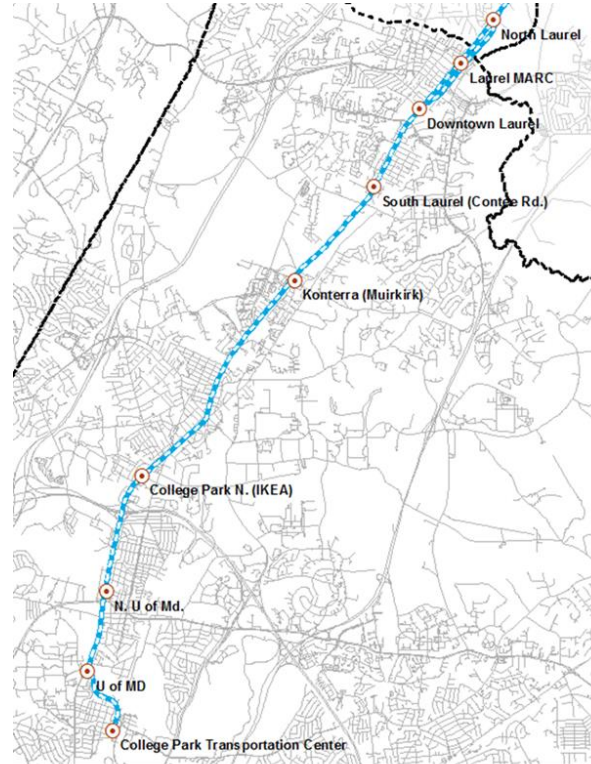
Figure 8. US 29 BRT Route Average Station Daily Boarding Forecasts.

BRT PLANNING IN HOWARD COUNTY

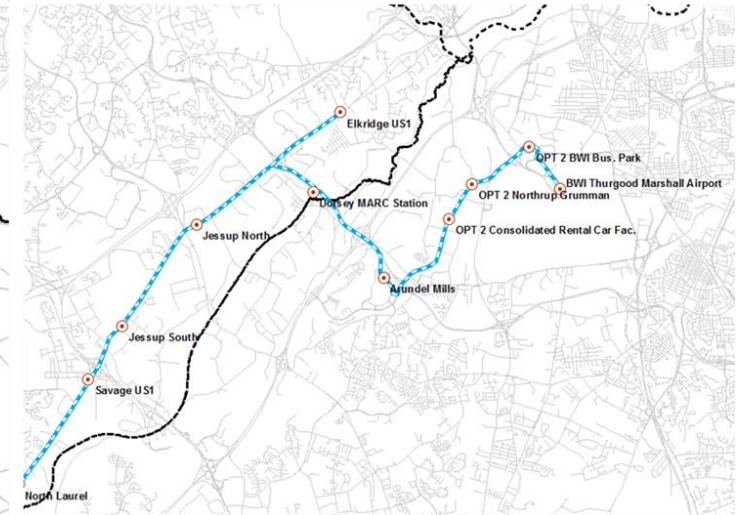
PHASE II STUDY

- Refine BRT corridors to include local feeder networks, potential park-and-rides, and increased pedestrian accessibility
- Congestion reduction impacts on future transportation networks
- Develop alternative land use scenario
- Select alignments to test
- Develop Final recommendations and next steps
- Add Route I
- Enhanced Regional Coordination

BRT PLANNING IN HOWARD COUNTY PHASE II STUDY-US 1



South (Prince George's Co.)

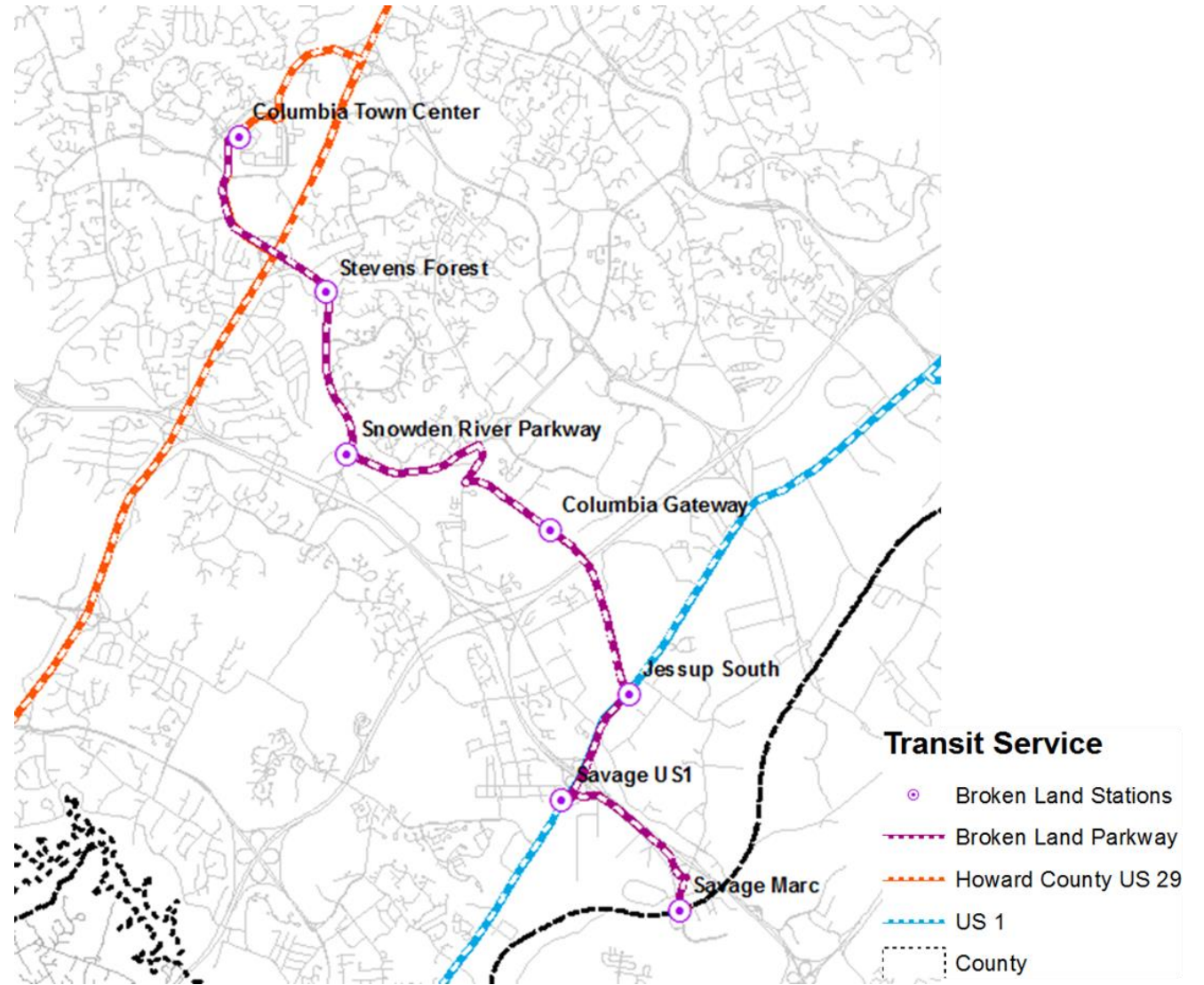


Transit Service

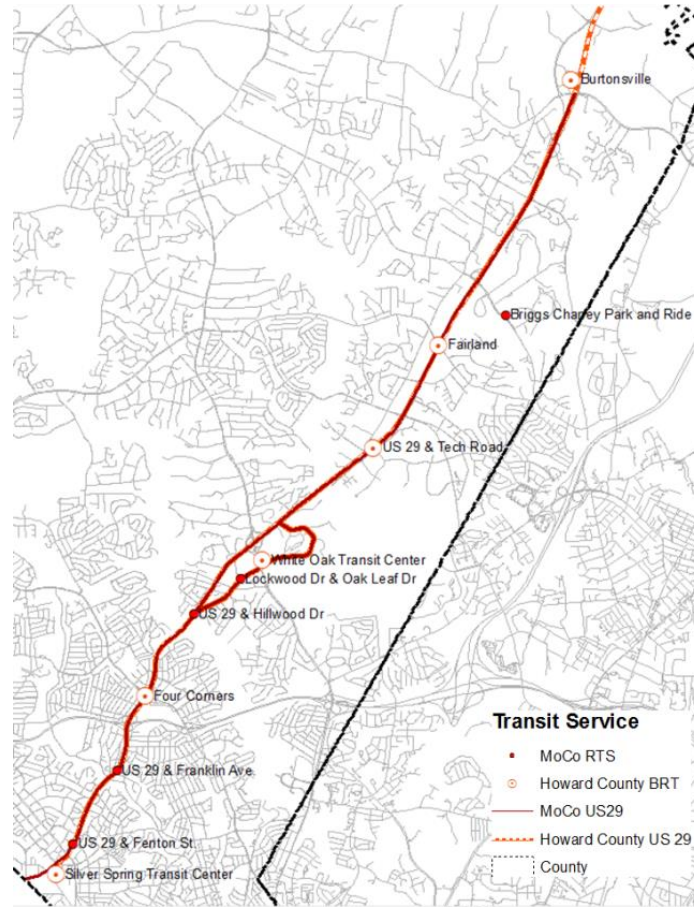
- US 1 Stations
- US 1
- - - County

North (Howard and Anne Arundel Co.)

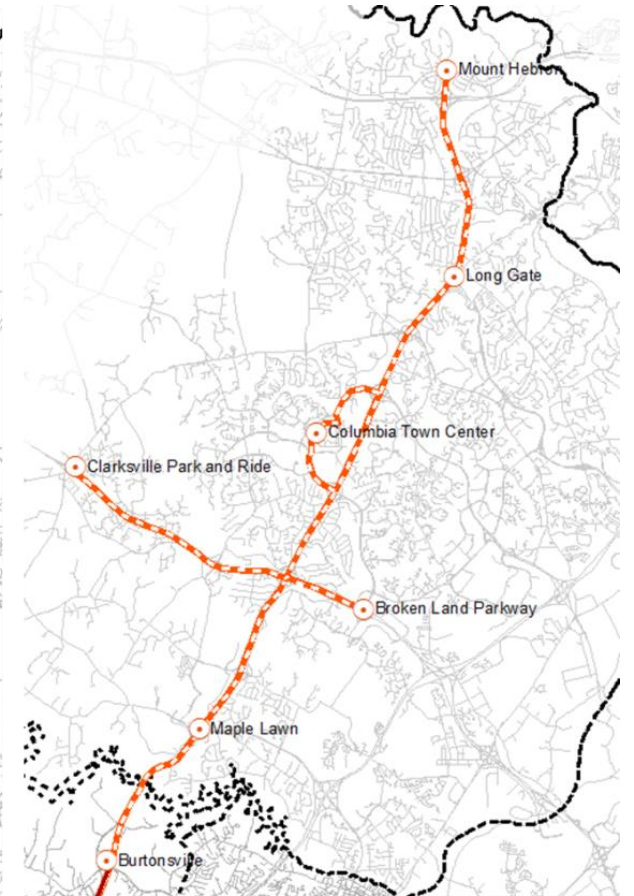
BRT PLANNING IN
HOWARD COUNTY
PHASE II STUDY-
BROKEN LAND
PARKWAY



BRT PLANNING IN HOWARD COUNTY PHASE II STUDY-US 29



Montgomery County RTS



Howard County BRT Phase II

BRT PLANNING IN HOWARD COUNTY PHASE II STUDY

- 2035 BRT Summary Statistics (Trips to/from BMC Region)

Average Weekday	US 29	US1	Broken Land Parkway	Total
Boardings	18222	20266	18213	56701
Passenger Miles	221404	186401	122466	530271
Passenger Hours	4510	4004	3357	11871
Average Trip Length (miles)	12.2	9.2	6.7	9.4
Average Trip Length (minutes)	14.9	11.9	11.1	12.6

For comparison: Baltimore Redline BRT Boardings = 18,915

Boardings for trips made within the Washington Region not included (within Montgomery County, Prince George's County)

BRT PLANNING IN HOWARD COUNTY

US 29 CORRIDOR- PHASE I AND II

Phase I

Service plan and ridership estimates based on Montgomery County's US 29 proposed project

Phase II

- Field review of routes
- Refine the ridership analysis
- Desktop Level Natural Environmental Inventory and Environmental Base Mapping
- Public workshops
- Shoulder analysis and ROW
- Conceptual Designs
- Operations and Maintenance Costs and Fleet Costs
- Development of an implementation plan

**BRT PLANNING IN
HOWARD COUNTY**

**US 29 CORRIDOR-
PHASE I AND II**

15 Minute Headways

Shoulder running in HC

Shoulder in MC until Tech Road

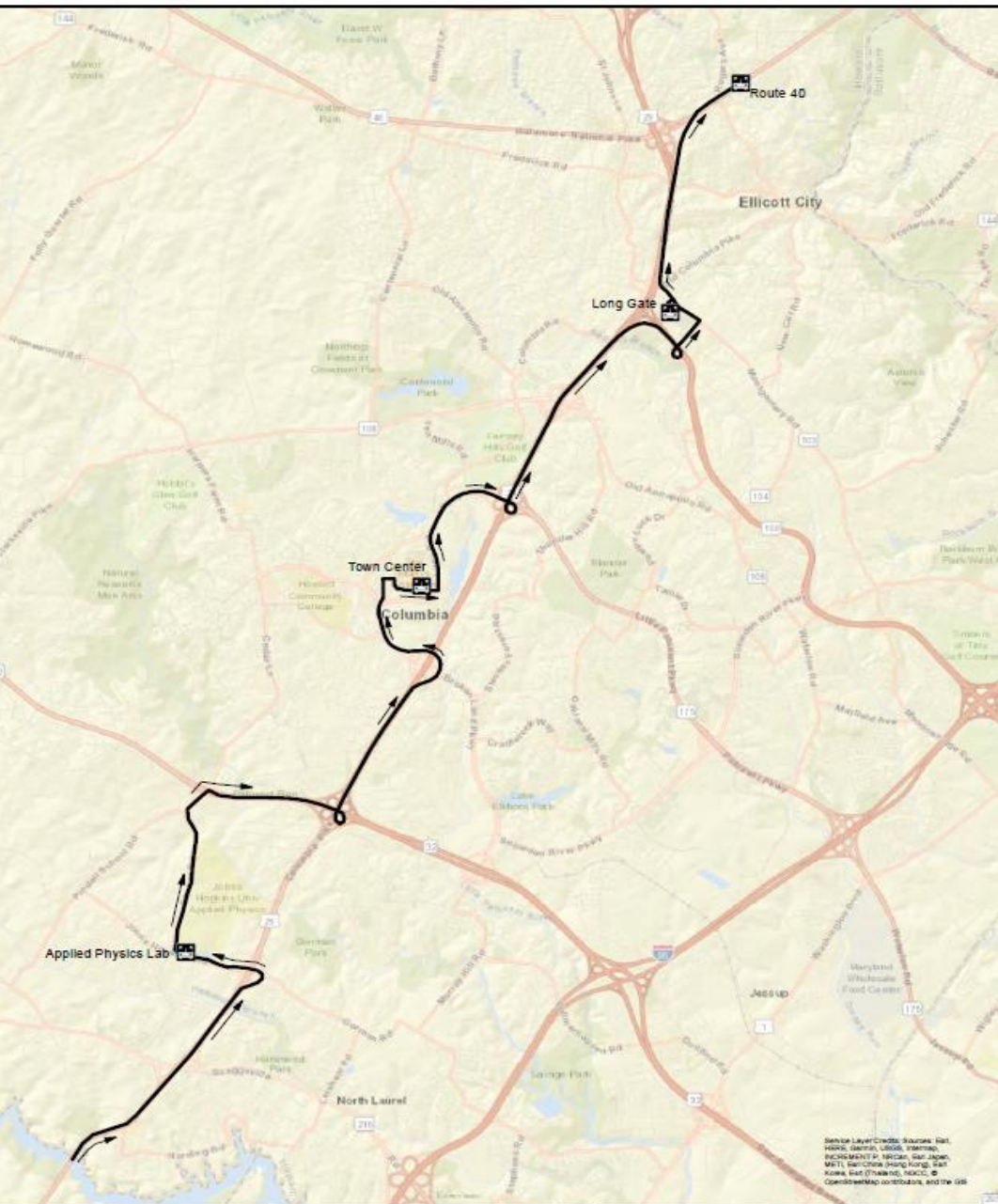
Also includes a new route connecting DTC to Gateway


3 Scenarios: No removal of MTA commuter Routes

Remove the 315 MTA commuter Route

Removal of all MTA Routes

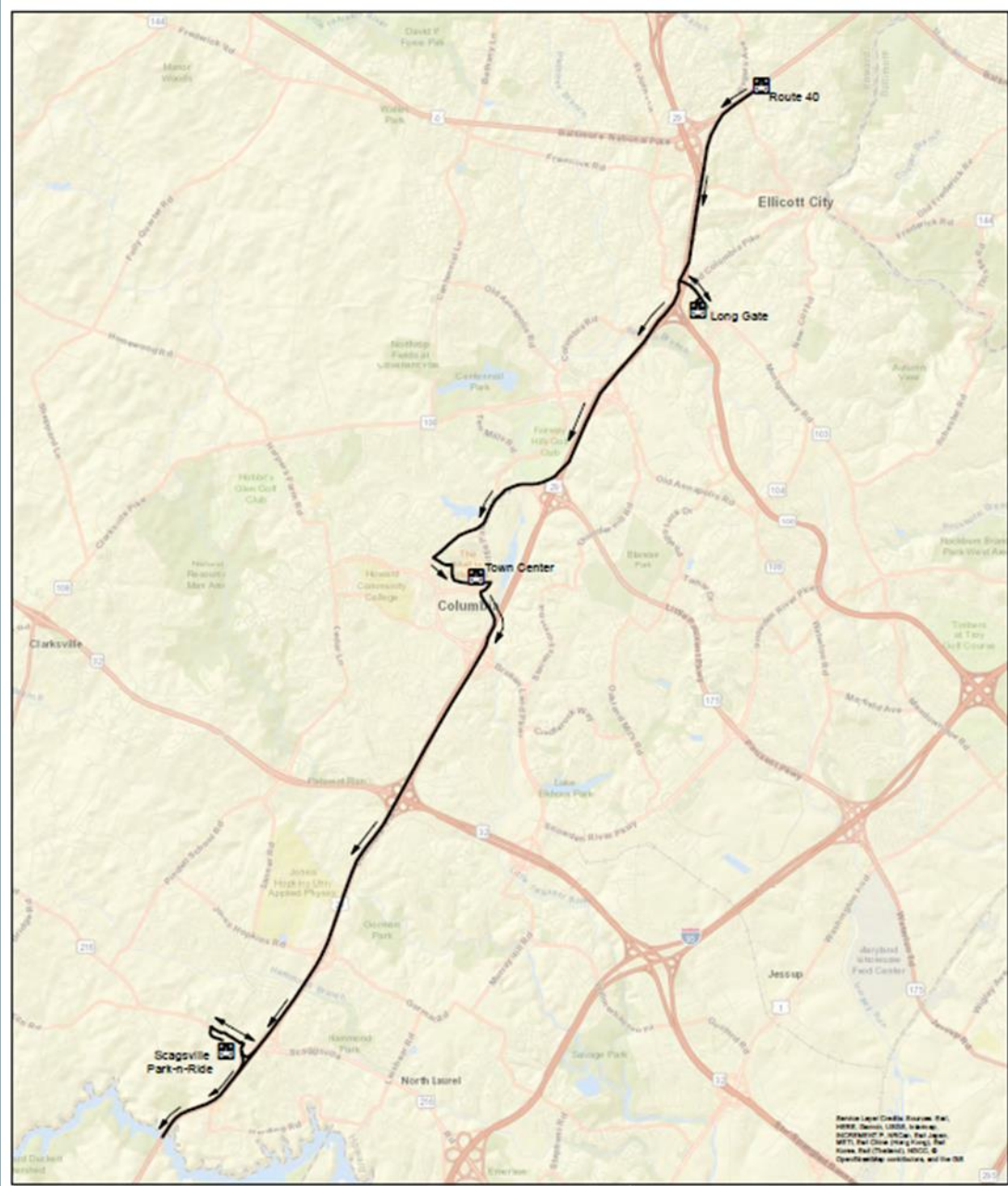
- **Alignment specifics are not final-tweaks were done in the model**
- **RESULTS ARE PRELIMINARY-THEY WILL CHANGE**




— AM NB Route
 BRT Stops

US 29 BRT Study

0 0.625 1.25
 Miles

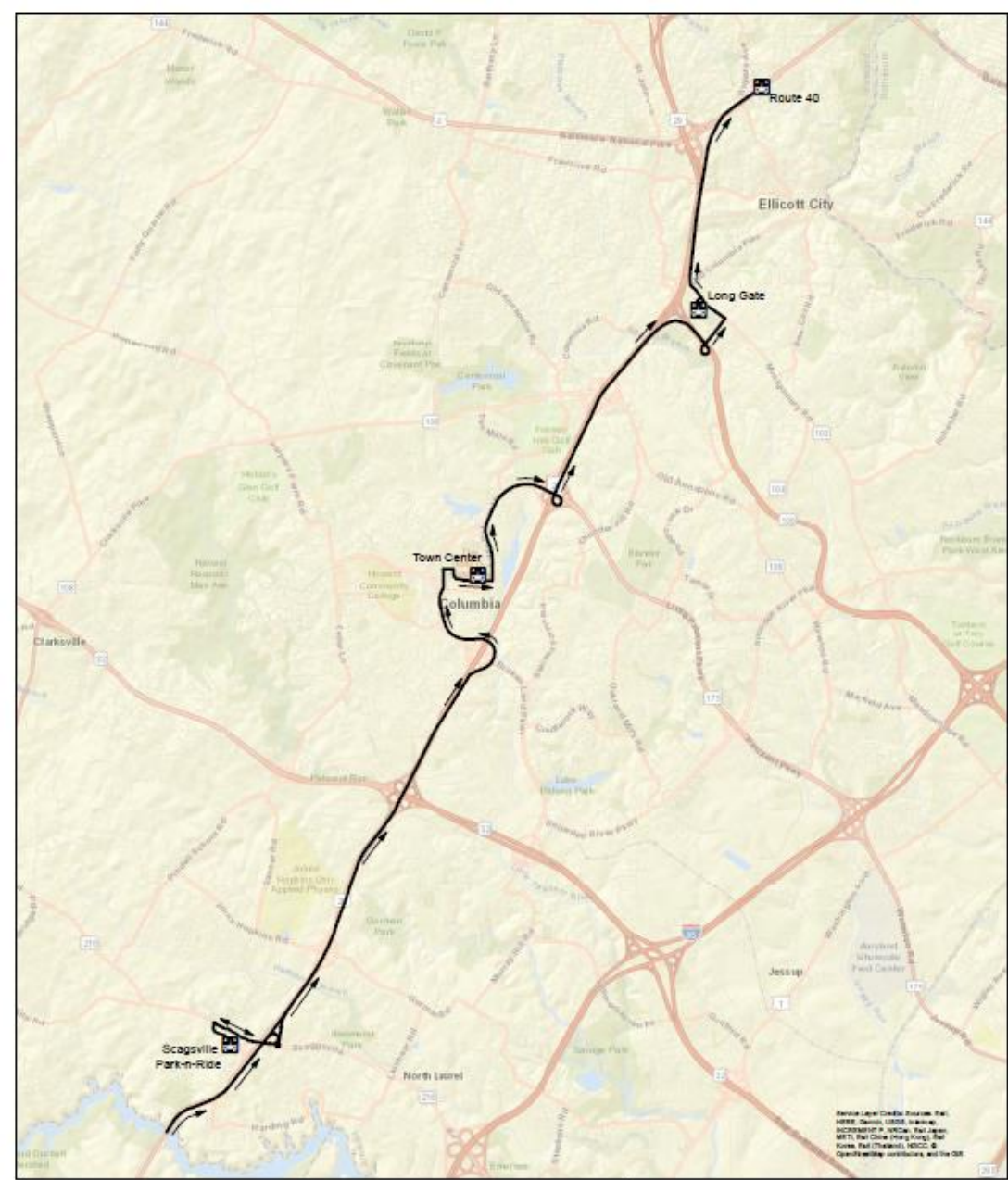


— AM SB Routes
 BRT Stops

US 29 BRT Study

0 0.625 1.25
 Miles

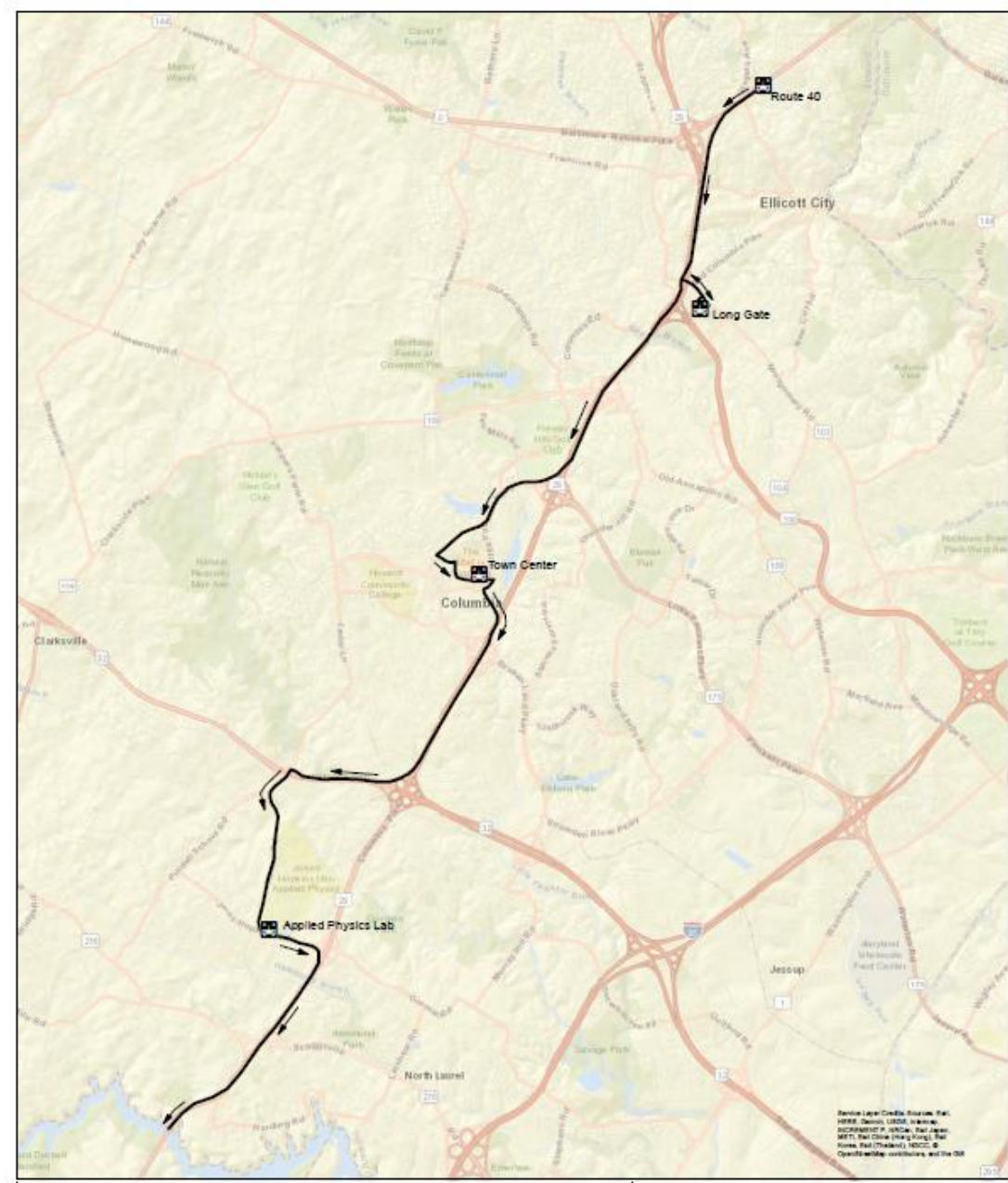




— PM NB Route
 🚍 BRT Stops

US 29 BRT Study

0 0.625 1.25
 Miles



— PM SB Route
 🚍 BRT Stops

US 29 BRT Study

0 0.625 1.25
 Miles



BRT PLANNING IN HOWARD COUNTY

US 29 CORRIDOR- PHASE I AND II

PRELIMINARY RESULTS

	Stops	2040 BRT+ALL MTA	2040 BRT + NO MTA	2040 - MTA315	Headway 10 min
Boardings	Ellicott City	1,150	1,209	1,151	1,250
	Long Gate	797	867	799	963
	Town Center	1,568	2,465	1,609	2,159
	Scaggsville	144	582	144	603
	Physics Lab	118	158	119	160
	Burtonsville	414	543	418	583
	Briggs Chaney	113	150	114	150
	Tech Road	517	702	523	702
	Burnt Mills Ave	73	98	73	102
	Four Corners	67	87	67	89
	Silver Spring	1,280	1,620	1,291	1,714
Ridership	Total BRT	6,241	8,481	6,308	8,475
	MTA325	1,120	0	1,112	734
	MTA305	1,493	0	2,345	1,580
	MTA315	1,684	0	0	0
	Total	10,538	8,481	9,765	10,789

AM Peak Period Stop Level Ons and Offs, by Direction

Stop	2040 BRT+ALL MTA						2040 BRT + NO MTA						2040 - MTA315						Headway 10 min					
	Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction		
	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride
Ellicott City	575	0	575	0	6	0	605	0	605	0	8	0	576	0	576	0	6	1	625	0	625	0	9	0
Long Gate	398	1	972	1	18	6	433	1	1,037	1	23	8	399	1	974	1	18	7	481	1	1,105	1	25	9
Town Center	780	29	1,723	4	237	23	1,229	29	2,237	4	307	30	801	28	1,747	4	239	24	1,075	35	2,145	5	272	33
Scaggsville	72	0	1,795	0	0	256	291	0	2,528	0	0	333	72	0	1,819	0	0	259	302	0	2,447	0	0	300
Physics Lab	0	0	1,795	59	15	256	0	0	2,528	79	19	333	0	0	1,819	60	15	259	0	0	2,447	80	19	300
Burtonsville	185	140	1,840	22	0	212	244	237	2,535	28	0	273	187	141	1,865	22	0	214	271	176	2,542	21	0	239
Briggs Chaney	0	0	1,840	57	0	190	0	0	2,535	75	0	245	0	0	1,865	57	0	192	0	0	2,542	75	0	218
Tech Road	0	47	1,793	259	825	133	0	47	2,488	351	1,068	170	0	47	1,818	262	832	135	0	54	2,488	351	1,130	143
Burnt Mills Ave	0	0	1,793	37	0	699	0	0	2,488	49	0	887	0	0	1,818	37	0	705	0	0	2,488	51	12	922
Four Corners	0	0	1,793	34	12	662	0	0	2,488	44	16	838	0	0	1,818	34	12	668	0	0	2,488	45	19	883
Silver Spring	0	1,792	0	640	0	640	0	2,487	0	810	0	810	0	1,817	0	646	0	646	0	2,487	0	857	0	857

PM Peak Period Stop Level Ons and Offs, by Direction

Stop	2040 BRT+ALL MTA						2040 BRT + NO MTA						2040 - MTA315						Headway 10 min					
	Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction		
	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride
Ellicott City	0	575	0	6	0	6	0	605	0	8	0	8	0	576	0	6	0	6	0	625	0	9	0	9
Long Gate	1	398	574	18	1	23	1	433	604	23	1	30	1	399	575	18	1	23	1	481	624	25	1	33
Town Center	29	780	971	237	4	256	29	1,229	1,036	307	4	333	28	801	973	239	4	258	35	1,075	1,104	272	5	300
Scaggsville	0	72	1,722	0	0	256	0	291	2,236	0	0	333	0	72	1,746	0	0	258	0	302	2,144	0	0	300
Physics Lab	0	0	1,794	15	59	212	0	0	2,527	19	79	273	0	0	1,818	15	60	213	0	0	2,446	19	80	239
Burtonsville	140	185	1,794	0	22	190	237	244	2,527	0	28	245	141	187	1,818	0	22	191	176	271	2,446	0	21	218
Briggs Chaney	0	0	1,839	0	57	133	0	0	2,534	0	75	170	0	0	1,864	0	57	134	0	0	2,541	0	75	143
Tech Road	47	0	1,839	825	259	699	47	0	2,534	1,068	351	887	47	0	1,864	832	262	704	54	0	2,541	1,130	351	922
Burnt Mills Ave	0	0	1,792	0	37	662	0	0	2,487	0	49	838	0	0	1,817	0	37	667	0	0	2,487	12	51	883
Four Corners	0	0	1,792	12	34	640	0	0	2,487	16	44	810	0	0	1,817	12	34	645	0	0	2,487	19	45	857
Silver Spring	1,792	0	1,792	0	640	0	2,487	0	2,487	0	810	0	1,817	0	1,817	0	646	-1	2,487	0	2,487	0	857	0

BRT PLANNING IN
HOWARD COUNTY

US 29 CORRIDOR-PHASE I
AND II

NEXT STEPS

1. MC Service
2. Service Model Refinement
3. Technical Report
3. Decision to move forward
4. Advance to Phase II

QUESTIONS AND COMMENTS?

David Cookson

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