








**Long Branch Sector Plan Traffic Briefing**

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	David Anspacher, Planner/Coordinator, Functional Planning and Policy, <a href="mailto:david.anspacher@montgomeryplanning.org">david.anspacher@montgomeryplanning.org</a> , 301-495-2191
	Mary Dolan, Chief, Functional Planning and Policy, <a href="mailto:mary.dolan@montgomeryplanning.org">mary.dolan@montgomeryplanning.org</a> , 301-495-4552
	Melissa Williams, Senior Planner, Area 1, <a href="mailto:melissa.williams@montgomeryplanning.org">melissa.williams@montgomeryplanning.org</a> , 301-495-4642
	Tom Autrey, Supervisor, Functional Planning and Policy, <a href="mailto:thomas.autrey@montgomeryplanning.org">thomas.autrey@montgomeryplanning.org</a> , 301-495-4533
	Valdis Lazdins, Chief, Area 1, <a href="mailto:valdis.lazdins@montgomeryplanning.org">valdis.lazdins@montgomeryplanning.org</a> , 301-495-4506

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**Description**

During this briefing on the Long Branch Sector Plan, staff will present a revised traffic analysis. While a Critical Lane Volume (CLV) analysis was originally conducted for the staff draft recommendations, the analysis has been revised to reflect the Planning Board’s recommended land use and the latest Purple Line plans that reduce the number of thru traffic lanes on University Blvd. Staff also intends to present the result of the Highway Capacity Manual (HCM) analysis on all intersections exceeding a 1600 CLV, though this analysis was not complete when this staff report was prepared.

**Background**

Traffic analysis was originally conducted for the Staff Draft recommendations. This analysis is often updated during the worksessions to reflect changes the Planning Board may make to the land use and transportation recommendations. However, in April the Maryland Transit Administration (MTA) advised staff that that they were changing their plans on University Blvd. Instead of widening University Blvd to accommodate the Purple Line and six lanes of traffic they would be converting two traffic lanes to the Purple Line transitway. While staff applauds this change, it required a complete update to the traffic analysis that could not be accomplished during the Planning Board worksessions.

**Analysis**


The revised traffic analysis shows the intersection CLVs for four scenarios:

- Existing Conditions: based on recent traffic counts
- Existing and Approved: based on the existing and approved development, 2040 thru traffic, and the Purple Line
- Holding Capacity: based on a best estimate of how much density would develop consistent with existing master plan recommendations, 2040 thru traffic, and the Purple Line
- Planning Board Draft: based on the Planning Board’s recommended land use, 2040 thru traffic, the Purple Line, and other transportation recommendations in the plan

The results of the CLV analysis are shown in Table 1.

**Table 1: CLV Analysis for Planning Board Draft (weekday peak hour)**

Intersection	Existing (2010)		Existing & Approved (2040)		Holding Capacity (2040)		Planning Board Draft (2040)	
	AM	PM	AM	PM	AM	PM	AM	PM
Carroll & University Blvd	1256	1247	1411	1504	1484	1614	1437	1565
Sligo Creek Pkwy & Piney Branch Rd	1295	1263	1592	1567	1677	1703	1567	1703
Piney Branch Rd & Flower Ave	855	812	1032	1151	1141	1282	1292	1386
Piney Branch Rd & Greenwood Ave	458	662	448	593	502	741	506	655
Piney Branch Rd & Arliss St	866	818	904	897	1102	1106	1180	1040
Piney Branch Rd & Barron St	1048	1051	1039	1013	1178	1243	1121	1041
University Blvd & Piney Branch Rd	1381	1607	1684	1962	1816	2200	1417	1665
Piney Branch Rd & Carroll Ave	739	840	932	1097	1032	1417	997	1332
Piney Branch Rd & Garland Ave							1128	1353
Piney Branch Rd & Gilbert St Ext							847	1034
University Blvd & Gilbert St Ext							1387	1339

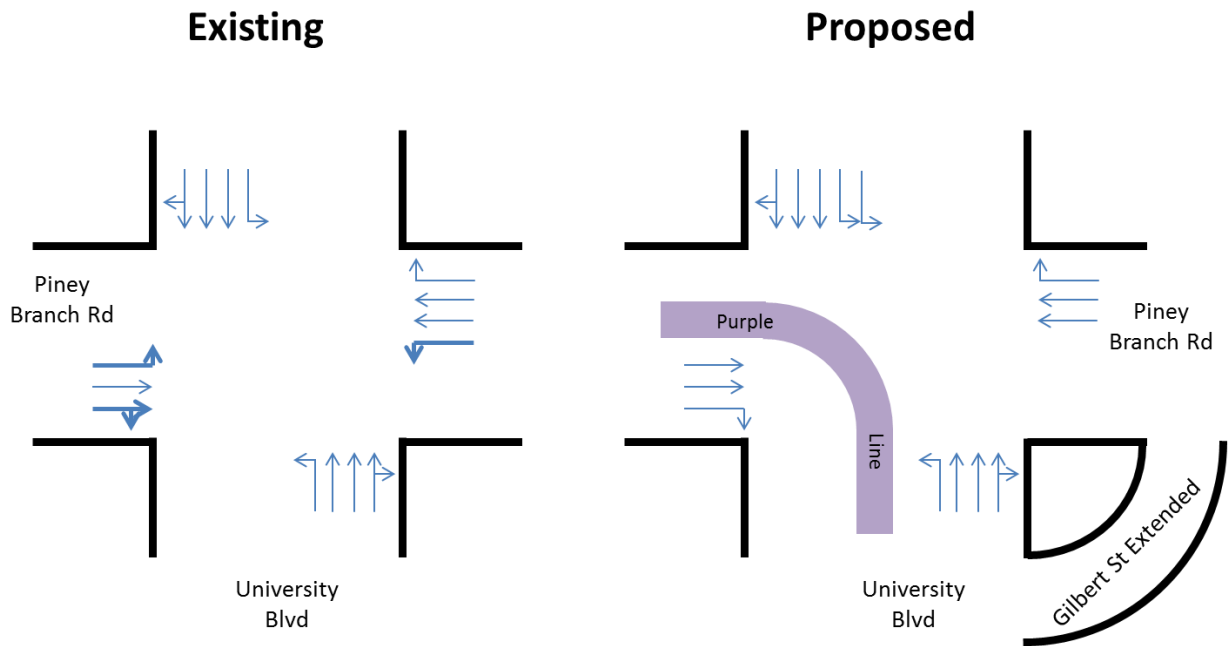
 = Intersections exceeding 1600 CLV standard

Note: blank cells indicate intersections that are not currently signaled.

Intersection of University Blvd & Piney Branch Rd

The intersection of University Blvd and Piney Branch Road is expected to exceed the 1600 CLV standard during the weekday peak hour in all four scenarios, and reach severe conditions during the PM peak hour in the Existing & Approved scenario (1962 during the PM peak hour) and Holding Capacity scenario (2200 during the PM peak hour). With the land use and transportation improvements recommended in the Planning Board Draft, CLVs are forecast to be below the 1600 CLV standard during the AM peak hour (1417) and somewhat exceed the standard during the PM peak hour (1665). These improvements are shown in Figure 1 and include relocating existing left turns from Piney Branch Rd to University Blvd to an extension of Gilbert St and providing a new eastbound right turn lane from Piney Branch Rd to University Blvd. Additionally, a second southbound left turn lane from University Blvd to Piney Branch Rd is needed.

**Figure 1: Existing and Proposed Lane Configurations for the Intersection of University Blvd & Piney Branch Rd**



Intersection of Piney Branch Rd & Sligo Creek Parkway

The intersection of Piney Branch Road and Sligo Creek Parkway is expected to exceed the 1600 CLV standard during the weekday peak hour for the Holding Capacity and Planning Board Draft scenarios. During the AM peak hour, a 1567 CLV is achieved for the Planning Board Draft by adding a southbound right-turn lane from Piney Branch Rd to Sligo Creek Pkwy. This can be achieved without adding any additional pavement by shifting the roadway toward the hatched pavement. Any improvements to reduce the CLVs in the PM peak hour are likely to have impacts to Sligo Creek Stream Valley Park and the Sligo Creek Trail and so are not proposed.

**Figure 2: Intersection of Piney Branch Rd and Sligo Creek Parkway**



Comparison of Traffic Analyses for the Staff Draft and Planning Board Draft

Table 2 shows the differences exist between the original traffic analysis based on the staff draft recommendations and the revised traffic analysis based on the Planning Board Draft recommendations.


Table 2: Comparison of Traffic Analyses for the Staff Draft and Planning Board Draft

	<b>Staff Draft (Original Analysis)</b>	<b>Planning Board Draft (Revised Analysis)</b>
Land Use	Staff Draft	Planning Board Draft
Transportation Improvements		
-- University Blvd	6 thru lanes + transitway	4 thru lanes + transitway
-- Glenville Rd Extended	Not included	Included
-- Garland Ave Extended	Not included (private road)	Included (public road)
-- Mode Shift	Not included	Included
-- Intersection of University Blvd & Carroll Ave	No change	Add right turn lane in eastbound direction
-- Intersection of Piney Branch Rd & Sligo Creek Pkwy	No change	Add southbound right turn lane

Table 3 shows the original Staff Draft CLV traffic analysis and the revised Planning Board Draft traffic analysis. In general the CLVs increased because of the additional land use recommended in the plan area and because of the lane repurposing on University Blvd. The CLVs drop at the intersection of Piney Branch Rd and Arliss St because of the addition of Garland Ave Extended in the analysis.

Table 3: CLV Analysis Comparison (weekday peak hour)

Intersection	Staff Draft (Original Analysis)		Planning Board Draft (Revised Analysis)		Difference	
	AM	PM	AM	PM	AM	PM
Carroll & University Blvd	1313	1446	1437	1565	124	119
Sligo Creek Pkwy & Piney Branch Rd	1575	1475	1567	1703	-8	228
Piney Branch Rd & Flower Ave	962	1186	1292	1386	330	200
Piney Branch Rd & Greenwood Ave	437	542	506	655	69	113
Piney Branch Rd & Arliss St	1479	1436	1180	1040	-299	-396
Piney Branch Rd & Barron St	1002	1004	1121	1041	119	37
University Blvd & Piney Branch Rd	1269	1627	1417	1665	148	38
Piney Branch Rd & Carroll Ave	852	1077	997	1332	145	255
Piney Branch Rd & Garland Ave			1128	1353		
Piney Branch Rd & Gilbert St Ext			847	1034		
University Blvd & Gilbert St Ext			1387	1339		

 = Intersections exceeding 1600 CLV standard