Metrobus Service Evaluation Study

Mount Pleasant Line: 42, 43 **Connecticut Avenue Line:** L1, L2

Technical Memorandum #3

Service Plan Recommendations





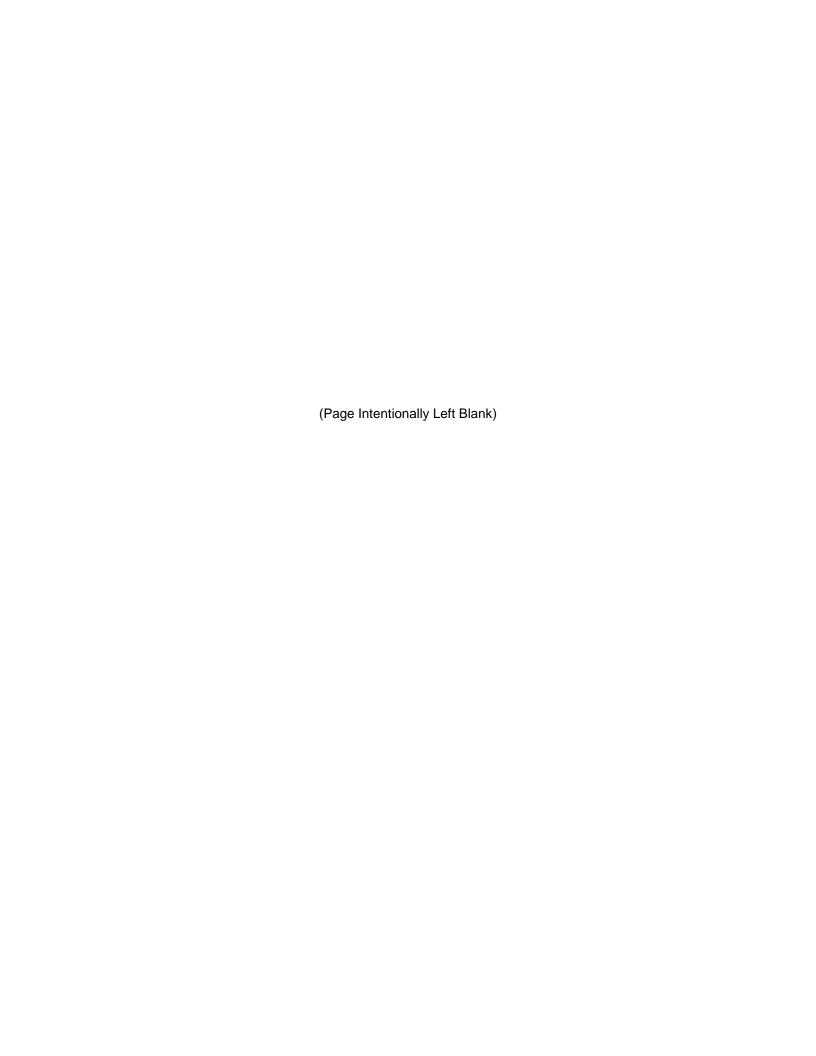


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1.0 Introduction

This technical memorandum presents the recommendations for the Mount Pleasant Line (Routes 42, 43) and Connecticut Avenue Line (Routes L1, L2) Service Evaluation Study. This memorandum provides an analysis of the preferred service change proposals and a listing of other proposals that were considered. The long list of service change proposals was presented to the Project Management Team (PMT) for their consideration. The list was reduced based on the feedback received via rider survey, public open house meetings, and ANC feedback. The list of service change proposals that was accepted by the PMT was then presented to the public to gauge their feedback and the recommended service change proposals reflect the input gained from the public outreach.

The analysis projects operating cost, ridership, fare revenue, and subsidy required for each line. A capital cost estimate for additional buses is also included in this technical memorandum. Operating costs are based on a cost per platform hour of \$117.62. Ridership estimates are based on reallocating passengers at the bus stop and route segment level from the current routes to the new services, based on an estimation methodology that utilizes existing rider activity and applies elasticities to these activity levels. This study used an average fare of \$1.17 per passenger to calculate fare revenue. Subsidy required is based on subtracting fare revenue from operating cost. A cost per additional bus of \$749,000 was used.

2.0 Mount Pleasant Line (42, 43) Recommendations

Five service change proposals were initially presented to the public. These service change proposals include improvements to the customer experience as well as route and service level modifications. Only two service change proposals are recommended, running time recalibration and adding an additional service pattern between Mount Pleasant Terminal and Gallery Place that bypasses Dupont Circle by utilizing the tunnel under the circle. These were the only two service change proposals that the PMT and the public approved of to address issues with the line. These service change proposals are presented and described below.

2.1 RECOMMENDATION 1: EXTEND SOME ROUTE 43 TRIPS TO GALLERY PLACE

This recommendation changes how Mount Pleasant Line buses circulate around the Dupont Circle area by adding an additional service pattern that operates between Mount Pleasant Terminal and Gallery Place. Every other midday trip will be a Route 43 trip that operates under Dupont Circle and continues to Gallery Place. This recommendation is presented in **Figure 2-1**.

The impact of this service change proposals is that there will be a reduction of service to Dupont Circle as half of the service that operates around Dupont Circle during off-peak periods will bypass the circle by operating underneath. The benefit of this alternative is that bus service will be more reliable because the Mount Pleasant Line trips that bypass Dupont Circle will experience less traffic congestion by operating through the tunnel. **Table 2-1** presents the headway impacts of this alternative in a cost-neutral manner. **Table 2-2** presents the ideal service if additional resources become available. The slight increase in headways under the scenario where additional resources are available is because during certain time periods, ridership is not high enough to justify the additional resources and buses needed to maintain or improve headways.

Figure 2-1 | Routes 42, 43, and 43 Long Proposed Restructuring

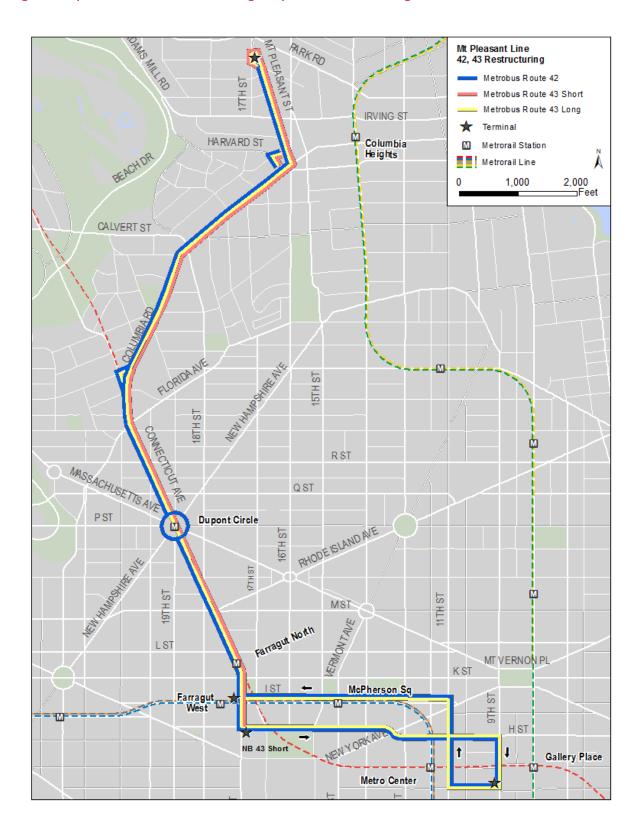


Table 2-1 | Proposed Mount Pleasant Line Headways with Changes at Dupont Circle (Cost Neutral)

| | Current | | | Proposed | | | | | | |
|------------|------------------|--|--------|-------------------------------------|------------------|--|------------------|--|--------|---------------------------|
| | Place/ Pleasa | allery Mount ant via t Circle | Square | rragut /Mount ant via anel | Place/ Pleasa | allery Mount ant via t Circle | Place/ Pleasa | ong: lery Mount ant via anel | Square | agut /Mount ant via |
| | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB |
| Weekday | | | | | | | | | | |
| Early AM | 20 | 20 | - | - | 21 | 21 | - | - | - | - |
| AM Peak | 11 | 11 | - | 5 | 11 | 11 | - | - | - | 5 |
| Midday | 12 | 12 | - | - | 30 | 30 | 26 | 26 | - | - |
| PM Peak | 9 | 9 | 9 | - | 11 | 11 | - | - | 8 | - |
| Evening | 12 | 12 | - | - | 22 | 22 | 25 | 25 | - | - |
| Late Night | 20 | 20 | - | - | 28 | 28 | - | - | - | - |
| Saturday | | | | | | | | | | |
| Early AM | 30/20 | 30/20 | - | - | 30/20 | 30/20 | - | - | - | - |
| Morning | 12 | 12 | - | - | 25 | 25 | 32 | 32 | - | - |
| Afternoon | 10 | 10 | - | - | 22 | 22 | 26 | 26 | - | - |
| Evening | 20 | 20 | - | - | 40 | 40 | 35 | 35 | - | - |
| Late Night | 25 | 25 | - | - | 26 | 26 | - | - | - | - |
| Sunday | | | | | | | | | | |
| Early AM | 30/20 | 30/20 | - | - | 30/20 | 30/20 | - | - | - | - |
| Morning | 16 | 16 | - | - | 34 | 34 | 29 | 29 | - | - |
| Afternoon | 15 | 15 | - | - | 39 | 39 | 34 | 34 | - | - |
| Evening | 22 | 22 | - | - | 23 | 23 | - | - | - | - |
| Late Night | 30 | 30 | - | - | 30 | 30 | - | - | - | - |

Table 2-2 | Proposed Mount Pleasant Line Headways with Changes at Dupont Circle (Additional Resources)

| | | Cur | rent | | | | Prop | osed | | |
|------------|------------------|--|--------|-------------------------------------|------------------|--|------------------|--|----|---------------------------|
| | Place/ Pleasa | allery Mount ant via t Circle | Square | rragut /Mount ant via anel | Place/ Pleasa | allery Mount ant via t Circle | Place/ Pleasa | ong: lery Mount ant via anel | | agut /Mount ant via |
| | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB |
| Weekday | | | | | | | | | | |
| Early AM | 20 | 20 | - | - | 21 | 21 | - | - | - | - |
| AM Peak | 11 | 11 | - | 5 | 11 | 11 | - | - | - | 5 |
| Midday | 12 | 12 | - | - | 22 | 22 | 26 | 26 | - | - |
| PM Peak | 9 | 9 | 9 | - | 9 | 9 | - | - | 9 | - |
| Evening | 12 | 12 | - | - | 22 | 22 | 25 | 25 | - | - |
| Late Night | 20 | 20 | - | - | 20 | 20 | - | - | - | - |
| Saturday | | | | | | | | | | |
| Early AM | 30/20 | 30/20 | - | - | 30/20 | 30/20 | - | - | - | - |
| Morning | 12 | 12 | - | - | 25 | 25 | 22 | 22 | - | - |
| Afternoon | 10 | 10 | - | - | 22 | 22 | 20 | 20 | - | - |
| Evening | 20 | 20 | - | - | 40 | 40 | 35 | 35 | - | - |
| Late Night | 25 | 25 | - | - | 20 | 20 | - | - | - | - |
| Sunday | | | | | | | | | | |
| Early AM | 30/20 | 30/20 | - | - | 30/20 | 30/20 | - | - | - | - |
| Morning | 16 | 16 | - | - | 34 | 34 | 29 | 29 | - | - |
| Afternoon | 15 | 15 | - | - | 26 | 26 | 34 | 34 | - | - |
| Evening | 22 | 22 | - | - | 23 | 23 | - | - | - | - |
| Late Night | 30 | 30 | - | - | 30 | 30 | - | - | - | - |

The impacts of the recommendations to the Mount Pleasant Line include changes to operating cost, ridership fare revenue, peak buses, and overall subsidy required. These impacts are presented on **Table 2-3**.

Table 2-3 | Impacts of Changes at Dupont Circle on the Mount Pleasant Line

| Indicator (Annual) | Current | Pleasa | e the Mount ant Line neutral) | Pleasa | e the Mount int Line resources) |
|---------------------------------|-------------|-------------|-------------------------------------|-------------|---------------------------------------|
| | | Projected | Change | Projected | Change |
| Revenue Hours | 68,014 | 67,701 | -313 | 72,071 | 4,057 |
| Operating Cost (\$117.62/hr) | \$7,999,807 | \$7,962,992 | (\$36,815) | \$8,476,991 | \$477,184 |
| Ridership | 2,218,904 | 2,194,569 | -24,335 | 2,209,743 | -9,161 |
| Fare Revenue | \$2,596,118 | \$2,567,646 | (\$28,472) | \$2,585,399 | (\$10,718) |
| Subsidy Required | \$5,403,689 | \$5,395,346 | (\$8,343) | \$5,891,592 | \$487,902 |
| Peak Buses | 17 | 17 | 0 | 19 | 2 |
| Capital Cost (Buses) | | | \$0 | | \$1,498,000 |

2.2 RECOMMENDATION 2: RUNNING TIME RECALIBRATION

This recommendation recalibrates running time on the Mount Pleasant Line to improve on-time performance of the line. The benefit of this recommendation is that the public timetable will reflect accurate running times and buses will operate more reliably. The drawback of this recommendation is that recalibrating running time will either require additional resources or the line's headways would increase and frequency would be reduced. Two options for running time recalibration are presented: a cost-neutral alternative and an option to maintain current service with additional resources. The amount of time required for the current and restructured service is presented on **Table 2-4** through **Table 2-6**. The cost neutral option for the current service doesn't require a headway expansion or cutting evening frequency on weekdays. The impact, in terms of revenue hours, operating costs, ridership, revenue, and subsidy are presented on **Table 2-7** and **Table 2-8**. This table also presents capital impacts.

In the cost-neutral scenario, service will need to be reduced to ensure that costs are not increased. A total of about two roundtrips will need to be eliminated from midday service to remain cost neutral. The impact is that weekday midday headways will increase from about every 12 minutes to about every 15 minutes.

Table 2-4 | Running Time Recalibration – Existing Service (Additional Resources)

| Day Type | Time Period | Route | Cycle Time Addition | Additional Bus | Additional Daily Platform Hours | Additional Annual Platform Hours |
|----------------|------------------|-------|------------------------|-------------------|--|---|
| | AM Peak | 42 | 8 | 1 | 3 | 753 |
| | AW F Gak | 43 | 4 | 1 | 3 | 753 |
| Weekday | Midday | 42 | 4 | 1 | 6 | 1,506 |
| | PM Peak | 42 | 8 | 0 | 0 | 0 |
| | | 43 | 4 | 2 | 8 | 2,008 |
| Saturday | PM | 42 | 2 | 1 | 7 | 399 |
| Saturday | Late Night | 42 | 3 | 1 | 3 | 171 |
| | AM | 42 | 3 | 1 | 5 | 285 |
| Sunday | PM | 42 | 3 | 1 | 7 | 399 |
| | Evening | 42 | 2 | 1 | 4 | 228 |
| Total Addition | nal Platform Hoเ | ırs | | | | 6,502 |

Table 2-5 | Running Time Recalibration – Restructured Service (Additional Resources)

| Day Type | Time Period | Route | Cycle Time Addition | Additional Bus | Additional Daily Platform Hours | Additional Annual Platform Hours |
|----------------|-----------------|-------|------------------------|-------------------|--|---|
| | AM Peak PM Peak | 42 | 8 | 1 | 3 | 753 |
| Weekday | | 43 | 4 | 1 | 3 | 753 |
| Vicenday | | 42 | 8 | 0 | 0 | 0 |
| | | 43 | 4 | 2 | 8 | 2,008 |
| Saturday | Late Night | 42 | 3 | 1 | 3 | 171 |
| Total Addition | 3,685 | | | | | |

Table 2-6 | Running Time Recalibration – Restructured Service (Cost Neutral)

| Day Type | Time Period | Route | Cycle Time Addition | Additional Bus | Additional Daily Platform Hours | Additional Annual Platform Hours |
|---------------|------------------------------|-------|------------------------|-------------------|--|---|
| | AM Peak | 42 | 8 | 1 | 3 | 753 |
| | AWITCAN | 43 | 4 | 1 | 3 | 753 |
| | Midday | 42 | 4 | -1 | -6 | -1,506 |
| | Wildday | 43 | -6 | -, | -0 | -1,500 |
| Weekday | PM Peak | 42 | 8 | 0 | 0 | 0 |
| | r IVI r Gak | 43 | 4 | 2 | 8 | 2,008 |
| | Late Night | 42 | 0 | -1 | -3 | -753 |
| | Eliminate Last Round Trip | 42 | 0 | 0 | -0.91 | -228 |
| | AM | 42 | 0 | -1 | -5 | -285 |
| | | 43 | -10 | -1 | -5 | -203 |
| Saturday | PM | 42 | 2 | -1 | -7 | -399 |
| Juliaruay | PIVI | 43 | -8 | -1 | -7 | -399 |
| | Eliminate Last Round Trip | 42 | 0 | 0 | -1.3 | -74 |
| | PM | 42 | 3 | -1 | -7 | -399 |
| Sunday | FIVI | 43 | -7 | -1 | -7 | -599 |
| 23 | Eliminate Last Round Trip | 42 | 0 | 0 | -1 | -57 |
| Total Additio | nal Platform Hou | rs: | | | | -188 |

Table 2-7 | Impacts of Running Time Recalibration on the Mount Pleasant Line (Existing Service)

| In director (Auroral) | Q | N | lo Change to | Existing Servic | e |
|---------------------------------|-------------|-------------|--------------|-----------------|---------------|
| Indicator (Annual) | Current | (cost ne | utral) | (additiona | ıl resources) |
| | | Projected | Change | Projected | Change |
| Revenue Hours | 68,014 | 68,014 | 0 | 74,516 | 6,502 |
| Operating Cost (\$117.62/hr) | \$7,999,807 | \$7,999,807 | \$0 | \$8,764,572 | \$764,765 |
| Ridership | 2,218,904 | 2,210,310 | -8,594 | 2,218,904 | 0 |
| Fare Revenue | \$2,596,118 | \$2,586,063 | (\$10,055) | \$2,596,118 | \$0 |
| Subsidy Required | \$5,403,689 | \$5,413,744 | \$10,055 | \$6,168,454 | \$764,765 |
| Peak Buses | 17 | 17 | 0 | 19 | 2 |
| Capital Cost Buses) | | | \$0 | | \$1,498,000 |

Table 2-8 | Impacts of Running Time Recalibration on the Mount Pleasant Line (Restructured Service)

| la diserce (August) | 0 | | Restructu | ıred Service | | |
|---------------------------------|-------------|-------------|------------|------------------------|-------------|--|
| Indicator (Annual) | Current | (cost ne | utral) | (additional resources) | | |
| | | Projected | Change | Projected | Change | |
| Revenue Hours | 68,014 | 67,826 | -188 | 71,699 | 3,685 | |
| Operating Cost (\$117.62/hr) | \$7,999,807 | \$7,977,752 | (\$22,055) | \$8,433,236 | \$433,430 | |
| Ridership | 2,218,904 | 2,194,569 | -24,335 | 2,209,743 | -9,161 | |
| Fare Revenue | \$2,596,118 | \$2,567,646 | (\$28,472) | \$2,585,399 | (\$10,718) | |
| Subsidy Required | \$5,403,689 | \$5,410,106 | \$6,417 | \$5,847,837 | \$444,148 | |
| Peak Buses | 17 | 17 | 0 | 19 | 2 | |
| Capital Cost (Buses) | | | \$0 | | \$1,498,000 | |

2.3 SERVICE CHANGE PROPOSALS PREVIOUSLY CONSIDERED

The following service change proposals were developed and presented to the PMT for consideration. Some were modified and made part of the final recommendations described above. Other service change proposals reviewed by the PMT were deemed not worth further consideration. Finally, some service change proposals were presented to the public but were not preferred by survey respondents and open house public meeting attendees.

2.3.1 Route 42 buses would run between Mount Pleasant and Dupont Circle only and Route 43 buses would run between Mount Pleasant and Gallery Place

This proposal would have truncated Route 42, having the Route operate between Dupont Circle and Mount Pleasant Terminal. Service into Downtown Washington would only be provided by Route 43 during the peak period. Of the 1,569 respondents, 59 percent were against the proposal, 29 percent were in favor, 9 percent had no opinion, and 3 percent did not understand the proposal. This proposal was not recommended because of respondents did not react favorably to the proposal.

2.3.2 Convert some Route 42 buses to Route H1 buses; Operate Route H1 All Day

This proposal would have provided all-day service on Route H1 between Brookland and Foggy Bottom and addressed the issue of bus congestion at Mount Pleasant Terminal. This proposal would have reduced congestion at the Mount Pleasant terminal by reducing service along the Mount Pleasant Line. Service levels on routes that duplicate portions of the Mount Pleasant Line, most notably the Brookland-Potomac Park Line (Route H1), would have been increased to account for reductions in Mount Pleasant Line service.

This proposal was not recommended for the reasons listed below:

- It was not popular with survey respondents. Of the 1,523 total respondents, 42 percent were not in favor of the proposal, 34 percent were in favor, 22 percent had no opinion, and 2 percent did not understand the proposal.
- The H1 is not creating the important connections into Downtown that are needed along Columbia Road NW.
- Part of the purpose of this proposal was to reduce congestion at Mount Pleasant Terminal which
 can be accomplished by adding space at the layover location. WMATA and DDOT are exploring
 physical solutions to address congestion at the terminal.

2.3.3 Downtown Terminal Changes

This proposal would have swapped the Route 42 and Route 43 terminals in Downtown Washington. Route 42 would have terminated at Farragut Square and Route 43 at Gallery Place. To maintain off-peak service, some weekday early AM, midday, and evening Route 42 trips would have been converted to Route 43 trips. This would have allowed for the longer route serving Gallery Place to have the travel time advantage of operating through the Dupont Circle Tunnel. This option was incorporated into the restructuring recommendation.

2.3.4 Dupont Circle Area Routing

There were three options for this proposal that were previously considered before the preferred option, described in Section 2.1, was selected. The first option was to operate all Route 42 buses through the Dupont Circle tunnel, leaving no Mount Pleasant Line trips directly serving Dupont Circle. This option was presented to the public to gauge overall reaction to this proposal. Of the 1,557 respondents, 52 percent were in favor of the proposal, 39 percent were not in favor, 8 percent had no opinion, and 1 percent did not understand the proposal.

The second option would have maintained the current route alignments but converted some Route 42 trips to Route 43 services. The third option would have been to restructure the Mount Pleasant Line into a single route that would operate between Mount Pleasant Terminal and Gallery Place, which would operate through the Dupont Circle tunnel, leaving no Mount Pleasant Line services directly serving Dupont Circle. This option was refined and incorporated into the final restructuring recommendation.

2.3.5 24-Hour Mount Pleasant Service

This proposal would have extended the span of service of Route 42 by adding late night trips. The result would have been that Route 42 would have had a 24-hour span. Ridership did not justify the additional trips so this option was not recommended.

3.0 Connecticut Avenue Line (L1, L2) Recommendations

Five service change proposals are analyzed in this section. These service change proposals which include improvements to the customer experience as well as route and service level modifications. Three service change proposals are recommended as part of this study: advancing bus stop rebalancing, changes to the Route L1 alignment, and removing some layovers from the Farragut Square area. These service change proposals are presented and described below.

3.1 RECOMMENDATION 1: BUS STOP CONSOLIDATION

This recommendation advances the list of bus stops along the Connecticut Avenue Line that are candidates for removal to the next step. The recommended list of bus stops is presented in **Table 3-1** below. This list has been revised since the initial analysis that identified 32 candidate bus stops for consolidation based on WMATA's bus stop spacing guideline (approximately 0.2 to 0.25 miles between stops) and a daily average ridership threshold (50 boardings). Revisions were based on feedback from riders during the public outreach phase to get to the final recommendation list of 7 bus stops. Respondents were most opposed to eliminating stops at Calvert Street, Cathedral Avenue, Devonshire Place, and Tilden Street. They were least opposed to eliminating stops at Rodman Street, Yuma Street, and Jocelyn Street.

The next step will be further WMATA analysis, coordination with DDOT, and coordination with the Upper Connecticut Avenue Pedestrian Safety Project. Impacts to costs and ridership would be based on which bus stops are eventually removed.

Table 3-1 | List of Bus Stops Advanced For Further Consideration for Removal

| Stop Location | Direction | Boardings | Alightings | Total Activity |
|--|------------|-----------|------------|----------------|
| Connecticut Avenue NW and Chesapeake Street NW | Northbound | 6 | 30 | 36 |
| Connecticut Avenue NW and Chesapeake Street NW | Southbound | 17 | 3 | 20 |
| Connecticut Avenue NW and Jocelyn Street NW | Northbound | 9 | 88 | 97 |
| Connecticut Avenue NW and Jocelyn Street NW | Southbound | 48 | 5 | 53 |
| Connecticut Avenue NW and Rodman Street NW | Southbound | 10 | 7 | 17 |
| Connectivity Avenue NW and Belmont Road NW | Northbound | 1 | 1 | 2 |
| Connecticut Avenue NW and Calvert Street NW | Southbound | 8 | 1 | 9 |

3.2 RECOMMENDATION 2: MODIFICATIONS TO ROUTE L1

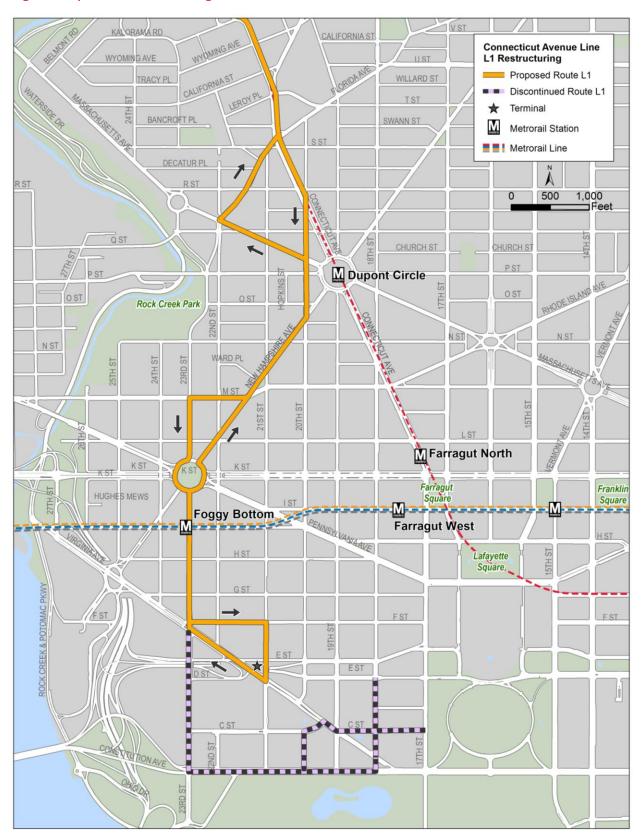
This recommendation is to discontinue Route L1 in the Potomac Park area. Service will no longer operate along Constitution Avenue NW or along 23rd Street NW south of Virginia Avenue NW. Most Route L1 riders will continue to be served and it is estimated that seven riders will lose the service due to the route truncation. The proposed Potomac Park routing of Route L1 is presented in **Figure 3-1**. Riders who use the 23rd Street NW and C Street NW would use a bus stop in the vicinity of 21st Street NW and Virginia Avenue NW which is adjacent to the State Department campus. The southern Route L1 terminal will be relocated from the current terminal at 18th Street NW and E Street NW / 17th Street NW and C Street NW to the intersection of Virginia Avenue NW and 21st Street NW. This is the same terminal used by Wisconsin Avenue and Pennsylvania Avenue services (30s Lines).

Based on scheduled running times, this alternative will save approximately 5 minutes per trip. The greatest benefit is that this should improve reliability of Route L1 as this change removes service on a very congested portion of Constitution Avenue NW. This recommendation is predicated on the removal of some on-street parking spaces to designate additional curb space for layovers. **Table 3-2** presents the impacts of this recommendation.

Table 3-2 | Impacts of Modification to Route L1

| Indicator (Annual) | Current | Modified L1 | | | |
|------------------------------|-------------|-------------|------------|--|--|
| | 5 | Projected | Change | | |
| Annual Platform Hours | 44,880 | 44,458 | -422 | | |
| Operating Cost (\$117.62/hr) | \$5,278,786 | \$5,229,150 | (\$49,636) | | |
| Ridership | 1,589,727 | 1,588,024 | -1,703 | | |
| Fare Revenue | \$1,859,981 | \$1,857,988 | (\$1,993) | | |
| Subsidy Required | \$3,418,805 | \$3,371,162 | (\$47,643) | | |
| Peak Buses | 14 | 14 | 0 | | |
| Capital Cost | \$0 | \$0 | \$0 | | |

Figure 3-1 | Modified L1 Routing



3.3 RECOMMENDATION 3: MOVE THE LAYOVER OF ONE OR MORE METROBUS ROUTES AWAY FROM FARRAGUT SQUARE

Currently nine Metrobus Routes, including the L2, terminate and take layover in the Farragut Square area. This many routes taking layover in such a small area has created congestion problems that impacts the reliability of service for each route. In order to improve reliability for the L2, one or more routes' layover points should be removed from Farragut Square. A better location nearby would be the intersection of Pennsylvania Avenue NW and 18th Street NW, as show in **Figure 3-2-2**. This could include adding additional bus stops between Farragut Square and 18th Street NW. Since this analysis does not recommend a specific route that would move to a new layover location, no analysis of cost and ridership is presented.

Farragut Square Terminal Relocation LST Existing Terminal Relocated Terminal Farragut North Metrorail Station Metrorail Line KST **Farragut West** S H ST PENNSYLVANIAAVE H ST

Figure 3-2 | Alternative Layover Location for Buses that Currently Serve Farragut Square

3.4 SERVICE CHANGE PROPOSALS PREVIOUSLY CONSIDERED

The following service change proposals were developed and presented to the PMT for consideration. Some were modified and made part of the final recommendations described above. Other service change proposals reviewed by the PMT were deemed not worth further consideration. Finally, some service change proposals were presented to the public but were not preferred by survey respondents and open house public meeting attendees.

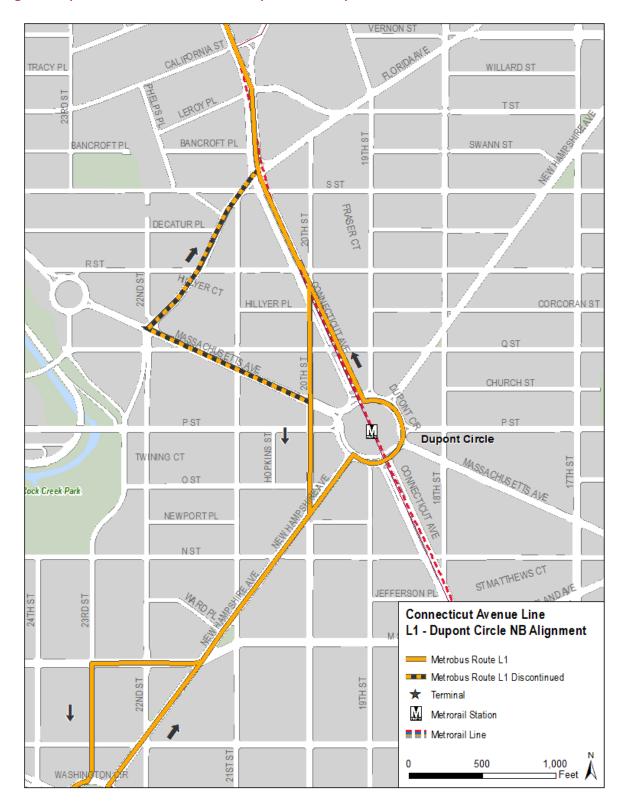
3.4.1 On weekends only, terminate every other Route L2 trip at Woodley Park

This service change proposal would have improved weekend headways along Connecticut Avenue north of Woodley Park Metro Station. One additional trip per hour would have operated along Route L2. Part of this proposal would have had every other trip have its southern terminal at Duke Ellington Bridge bus loop instead of Farragut Square. The advantage of this proposal would have been improved headways along Connecticut Avenue NW. The disadvantages would have been reduced service between Duke Ellington Bridge bus loop and Downtown and a net increase in cost. This proposal was not considered further due to low favorability of the proposal, increased costs, very little impact on ridership, and it would have made the line more confusing to riders. Of the 3,860 respondents to the public survey, 67 percent were not in favor of the proposal, 16 percent were in favor, 15 percent had no opinion, and 2 percent did not understand the proposal.

3.4.2 Re-route Northbound Route L1 via Dupont Circle instead of Massachusetts Avenue NW and Florida Avenue NW

This service change proposal presented a modification of the northbound routing in the vicinity of Dupont Circle in order to improve the directness of the route and provide direct service to the Dupont Circle area. The advantage of this proposal was that service would have been simpler with northbound and southbound services matching each other. The disadvantage was that there would have been a small number of riders who would no longer be served by Route L1 buses. This proposal, presented in **Figure 3-3**, was not recommended because it would not save travel time and would introduce reliability issues. Public response to this proposal was split, of the 17 responses collected at the public open houses, 35 percent responded favorably, 24 percent responded favorably but felt it needed adjustments, 12 percent did not like the proposal, and 29 percent had no opinion.

Figure 3-3 | L1 Northbound Service at Dupont Circle Option



3.4.3 Convert all Route L1 buses to Route L2 buses

The service change proposed would have restructured the line by converting all L1 trips to L2 trips. The advantages of this proposal would simplify northbound and southbound services and increase weekday frequency between Chevy Chase Circle and Farragut Square. The disadvantage was that there would have been a small number of riders who would no longer be served by Connecticut Avenue Line buses, particularly to the Foggy Bottom neighborhood. Of the 3,906 total respondents of the public survey, 43 percent were against the proposal, 39 percent were in favor, 14 percent had no opinion, and 4 percent did not understand the proposal.

An optional service proposal associated with the consolidation of Routes L1 and L2 was to extend the L2 into the western area of Downtown, presented in **Figure 3-4**. This proposal was not recommended because it significantly increases operating costs.

3.4.4 Additional Route L2 Service to Bethesda

There are currently Friday and Saturday late night trips that extend from Chevy Chase Circle to Bethesda. This service change proposal would have added service on the Connecticut Avenue Line between Chevy Chase Circle and Bethesda. The additional service would have consisted of early morning trips, more days per week, and extended span of service. Note that the existing Route L2 schedule was setup prior to the adjustment of the Metrorail hours. This proposed expansion responds to passenger demand during Metrorail non-service hours. This proposal was not recommended as the service was deemed unnecessary and ridership on the current trips is not very high.

Figure 3-4 | Eliminating Route L1 and Extended L2 Trips to Western Areas of Downtown Option

