

Introduction

The 2011 DC Circulator Transit Development Plan (TDP), the first such plan for the Circulator in its nearly 10-year history, established the need for a TDP update every three years. This report fulfills that directive and will guide the future growth of the DC Circulator bus system by keeping the existing system, and future growth of the system, current and aligned with demand and development in DC.

Since beginning service in 2005, the Circulator has grown from an initial two routes to a more extensive network of five routes. The Circulator is known for its strong brand, identified by:

- » Distinctive, comfortable buses.
- » High-frequency service (all day, 10-minute headways).
- » Connections to key activity center and transit modes.
- » Easy to understand routes.
- » Simple, affordable fare structure.

In 2013, the DC Circulator provided more than 5.6 million trips and now operates a fleet of 49 buses. It is the fourth largest bus system in the region in terms of ridership. This success has led to increased demand for additional Circulator service, and the purpose of this plan is to provide a basis for directing that growth and continually improving the existing system. As such, this plan accomplishes the following objectives:

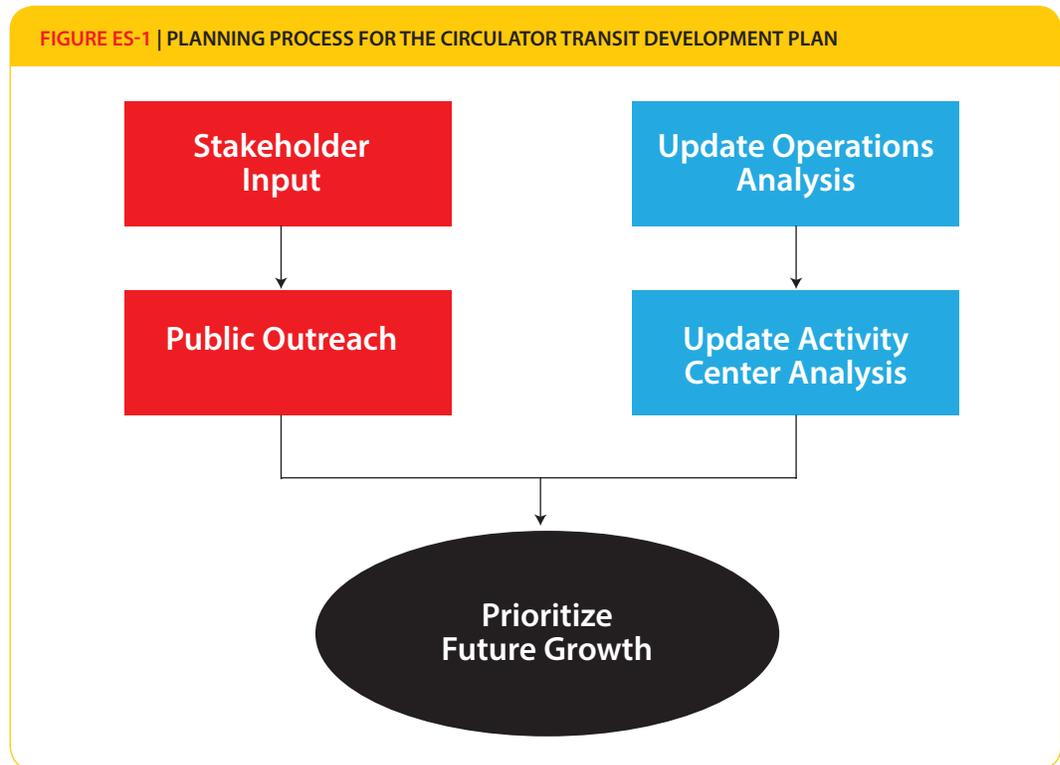
- » Provide a transparent planning and decision-making process through a broad outreach and participation process.
- » Update citywide land use, demographic, development data, in addition to data and plans for other transit services, in order to identify corridors that support Circulator service and warrant all-day 10-minute headways.

- » Apply previously defined measures and criteria to this data to plan new service.
- » Develop a usable, living plan for near- and long-term growth.

The remaining sections of the Executive Summary briefly describe the major elements of this plan.

ES 2 Planning Process

The DC Circulator 2014 Transit Development Plan Update is the result of a planning process focused on updating the 2011 TDP, a plan that established a robust planning process for improving existing service and developing new and expanded Circulator service throughout the District. The process aimed to increase transparency by involving a variety of stakeholders and providing opportunities for public input. **Figure ES-1** illustrates the planning process.





Stakeholder Outreach and Public Involvement



DDOT collected input from a variety of sources to define priorities and inform the future growth of the Circulator. In addition to the semi-annual DC Circulator forum, DDOT met with key stakeholders several times; held a focus group with bus operators and supervisors; hosted an online survey; and held six public pop-up events where surveys were conducted on-site with DDOT and project staff available to answer questions. **Chapter 4** describes in further detail the results of the public engagement efforts.



Update Operations Analysis



DDOT conducted a thorough review and analysis of current DC Circulator operations during the 2014 TDP, including analyses of boarding and alighting activity at each stop; route and system productivity; costs; and operational issues. The system evaluation identified several opportunities to improve the DC Circulator. Improvements were identified based on performance data and/or input from stakeholders and the community. Opportunities to improve the existing system include: deploy additional vehicles to meet service commitment; bus stop consolidation; promote a system-wide core service standard; evaluate changes to schedule and span; consider options to adapt to underutilization; and, deploy priority bus treatments. **Chapter 5** describes the results of the operations analysis and describes these potential areas of improvement in more detail.



Update Activity Center Analysis



The update of activity centers identified in the 2011 TDP was the first step in determining where the Circulator could provide appropriate transit service. For the purposes of this study, activity centers are mixed-use centers of employment, residences, recreational and cultural uses, and retail activities. Activity centers were evaluated in terms of their size, growth rate, and land use characteristics of each activity center. As described in the strategic goals and objectives developed during the 2011 TDP, it is a priority for the DC Circulator to connect mixed-use activity centers in order to improve mobility and foster

economic activity. Because activity centers serve multiple trip purposes, they are likely to generate high ridership demand that warrants all-day ten-minute headways. The size and timing of activity center development also plays a key role in Circulator planning. The results of this evaluation can be found in **Chapter 6**.

ES2.3.1 Growth Corridors

After identifying activity centers, DDOT evaluated the existing transit connections between them to identify transit needs and avoid duplication of existing service. A matrix of existing rail or high-frequency, all-day bus connections between activity centers can be found in **Appendix A**. An initial list of potential growth corridors was developed based on:

- » Review of the recommended corridors in the 2011 TDP.
- » Gaps in transit services identified among the activity center connections.
- » Inputs from existing DDOT and WMATA transit service studies.
- » Planned future premium transit investment, such as the Metro Extra, the DC Streetcar, and elements from moveDC.
- » Suggestions from the DC Council, Circulator riders, and the public.

The 2011 TDP's strategic goals and objectives define two types of measures: operational performance measures (OPMs) and service planning measures (SPMs). In determining specific growth corridors, DDOT used the service planning measures to screen an initial set of corridors. **Chapter 6** offers descriptions of the activity centers and **Chapter 7** describes the corridor evaluation and recommended corridors.

ES 3 Corridor Evaluation & Expansion Recommendations

After defining the strategic direction for the system, analyzing operations and needs, and seeking public input, DDOT focused on identifying potential areas for expanded service over the next 10 years, in addition to evaluating the recommendations provided in the 2011 TDP. The development of potential corridors for future Circulator service is at the heart of this study.

These corridors were screened based on service planning measures that reflect the DC Circulator’s goals and objectives described in **Chapter 3** and summarized in **Figure ES-2**. After this screening process, DDOT finalized the recommended corridors for the TDP update based on stakeholder and public feedback. The methodology by which the initial corridors were identified, evaluated, and screened down to a reduced set of recommended corridors for future expansion is depicted in **Figure ES-3** on page xvi.

FIGURE ES-2 | DC CIRCULATOR PLANNING CRITERIA FOR EVALUATING GROWTH CORRIDORS

PLANNING CRITERIA FOR EVALUATING GROWTH CORRIDORS

- Number of activity centers served
- Size of activity centers served
- Variety of land uses at activity centers served
- Timing of development in activity centers served
- Link to other non-auto transportation modes
- Complement existing transit options
- Connections between the National Mall and activity centers
- Number of visitor destinations served



Potential Service Corridors

The development of potential corridors for future DC Circulator service is a key component of the TDP process. **Table ES-1** lists alphabetically the potential expansion corridors and route extensions that were screened and evaluated against the DC Circulator’s planning criteria.

TABLE ES-1 | LIST OF POTENTIAL EXPANSION CORRIDORS IDENTIFIED FOR EVALUATION (IN ALPHABETICAL ORDER)

Adams Morgan – H Street NE	Georgetown – Union Station Extension to National Cathedral
Anacostia – Congress Heights via Skyland	Lincoln Memorial – U Street/Howard University
Columbia Heights – Washington Hospital Center – Brookland – NoMa	Minnesota Avenue – Skyland
Convention Center – Southwest Waterfront	National Cathedral – McPherson Square (Overlap with Shortened Georgetown - Union Station)
Dupont Circle – Georgetown – Rosslyn Extension to U St/Howard University	National Mall
Dupont – Georgia Ave/Petworth	Anacostia Metro Station – Congress Heights Metro Station
Dupont – Southwest Waterfront	St. Elizabeth’s Campus/Congress Heights – H Street NE
Dupont – U Street/Howard University	Tenleytown – Silver Spring
Eastern Market – Anacostia	Tenleytown – Van Ness – Columbia Heights
Fort Totten – Friendship Heights	Union Station – Navy Yard Extension to Southwest Waterfront
Fort Totten – Union Station via NoMa	

This phase of the analysis focused on evaluating potential corridors against the DC Circulator’s service planning measures, the details of which can be found in **Table 7-2**. The final corridors were selected based on the evaluation of the corridors using the planning criteria and the results of the semi-annual forum, stakeholder outreach, six pop-up events, and an online survey.

The majority of corridors reviewed do not meet Circulator service criteria in the mid or long-term. Many of these corridors are already served by existing high frequency transit service, or do not have a sufficient mix of land uses and population/employment growth to justify Circulator service (and may be better served by Metro’s Metro Extra or local bus services). The reasons for not recommending these corridors are further described in **Table 7-1**.



Summary of Corridor Evaluation and Corridor Recommendations

The evaluation of potential expansion corridors for DC Circulator service involved both quantitative and qualitative analyses. The identified corridors and recommendations are based on current projections of demographic and economic development patterns in the District based on the analysis in **Chapter 6**.



Corridors Carried Forward to Phasing

As a result of the corridor screening summarized in Section 7.1, the following corridors, listed in alphabetical order, are carried forward to phasing, the final step in the Circulator planning process illustrated in Figure ES-3:

- » Columbia Heights – Washington Hospital Center – Brookland – NoMa (new route)
- » Convention Center – Southwest Waterfront (new route)
- » Dupont Circle – Georgetown – Rosslyn Extension to U Street/Howard University
- » Dupont – Southwest Waterfront (new route)
- » National Mall Route (new route)
- » Rosslyn to Dupont- U Street/Shaw-Howard University Extension

In addition, the following extensions, though they are expected to fall short of several key Circulator performance metrics, are also carried forward into phasing as they have been funded by the DC Council in FY 2013:

- » Georgetown-Union Station Extension to National Cathedral
- » Potomac Avenue Metro–Skyland Extension to Congress Heights
- » Union Station - Navy Yard Extension to Southwest Waterfront

Additionally, there are two new routes that fall under neither of these categories category:

- » National Cathedral - McPherson Square Metro via K Street (new route)
- » Service to NoMa (new route)

FIGURE ES-3 | DC CIRCULATOR PLANNING



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4.2**

Corridor Evaluation Summary

Based on the results of the planning process described in **Chapter 2** (and summarized in **Figure ES-3**), the corridor evaluation, and stakeholder and public feedback, the growth plan consists of a network of the following six new recommended Circulator routes, one recommended extension (Dupont Circle – Georgetown – Rosslyn Extension to U St/Howard University), and three additional extensions to existing routes funded by the DC Council. The new routes and extensions are listed in **Table ES-2**.

TABLE ES-2 | 2014 TDP UPDATE GROWTH CORRIDORS

New Routes	Route Extensions
National Mall Route	Georgetown – Union Station Extension to National Cathedral (Council funded)
National Cathedral – McPherson Square (includes reducing service on existing Georgetown – Union Station route to no longer serve Wisconsin Ave above M Street)	Union Station – Navy Yard Extension to Southwest Waterfront (Council funded)
NoMa (route to be determined in a future study)	Rosslyn- Georgetown-Dupont Extension to U St/Howard University
Convention Center – Southwest Waterfront	Potomac Ave Metro – Skyland Extension to Congress Heights (Council funded)
Dupont – Southwest Waterfront	
Columbia Heights – Washington Hospital Center – Brookland – NoMa	

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Phasing of Corridor Development

An implementation timeline has been developed to update the TDP from 2011. The timing of development illustrated on the Activity Center map (**Figure 8-1**) is a key driver in the phasing of corridor implementation. The timing of development indicates when the activity center will likely have sufficient mixed-use development to support all day high-frequency Circulator service once the activity center is in place and has matured in population to generate 10 minute all day service demand. The phasing of recommended corridors reflects additional mitigating factors including equity considerations, political considerations (and public pressure creating it), and matters related to overall funding and fleet availability. As a result of these other considerations recommendations for the phasing of corridors may not match the phasing of activity centers. **Table ES-3** summarizes the implementation of routes by phase.

TABLE ES-3 | ROUTE PHASING

Phase	New Routes	Extensions
Phase I (FY 2015 – 2017)	<ul style="list-style-type: none"> • National Mall • National Cathedral – McPherson Square Metro (Overlap with Shortened Georgetown – Union Station Route, dependent on procuring additional required vehicles. If required vehicles cannot be procured the implementation of this route will be deferred to Phase II) 	<ul style="list-style-type: none"> • Georgetown – Union Station Extension to National Cathedral • Union Station – Navy Yard Extension to Southwest Waterfront • Dupont – Georgetown – Rosslyn Extension to U St/Howard University • Potomac Ave Metro – Skyland Extension to Congress Heights
Phase II (FY 2018 – 2020)	<ul style="list-style-type: none"> • Convention Center – Southwest Waterfront Service (dependent on sufficient development taking place between now and 2018) • NoMa Service (route to be determined based on future study to be conducted in 2014-2015, once the planning is completed if funding is secured this route could potentially be implemented during late Phase I) 	None
Phase III (FY 2021 – 2024)	<ul style="list-style-type: none"> • Dupont – Southwest Waterfront • Columbia Heights - Washington Hospital Center – Brookland – NoMa (If development at the McMillan Reservoir and Brookland/CUA activity centers occurs more rapidly than is currently expected, the Columbia Heights – Washington Hospital Center – Brookland – NoMa route could be moved to the Phase II time period.) 	None

ES 6 Implementation Plan

With operational analyses of the current corridors conducted (**Chapter 5**) and future corridors for development determined (**Chapter 7**), an implementation plan to carry out the identified service improvements is a necessary next step. **Chapter 9** provides a multi-year implementation plan, focusing on Phase I service changes and recommended routes. Service improvements include changes to bus operations, consolidation of bus stops, and route extensions that can be accomplished in the near-term. Proposals for new routes are also part of the plan for continued improvements to the Circulator system.



Circulator Governance

Evaluation of Circulator governance is an important component of thinking about system-level planning and service provision, and the appropriate governance structure is of critical importance in providing efficient and effective service. DDOT is committed to seeking transparent and open ways to seek public input on decision-making that fits within the other budget and oversight processes of the District.



Decision-Making Procedures and Responsibilities

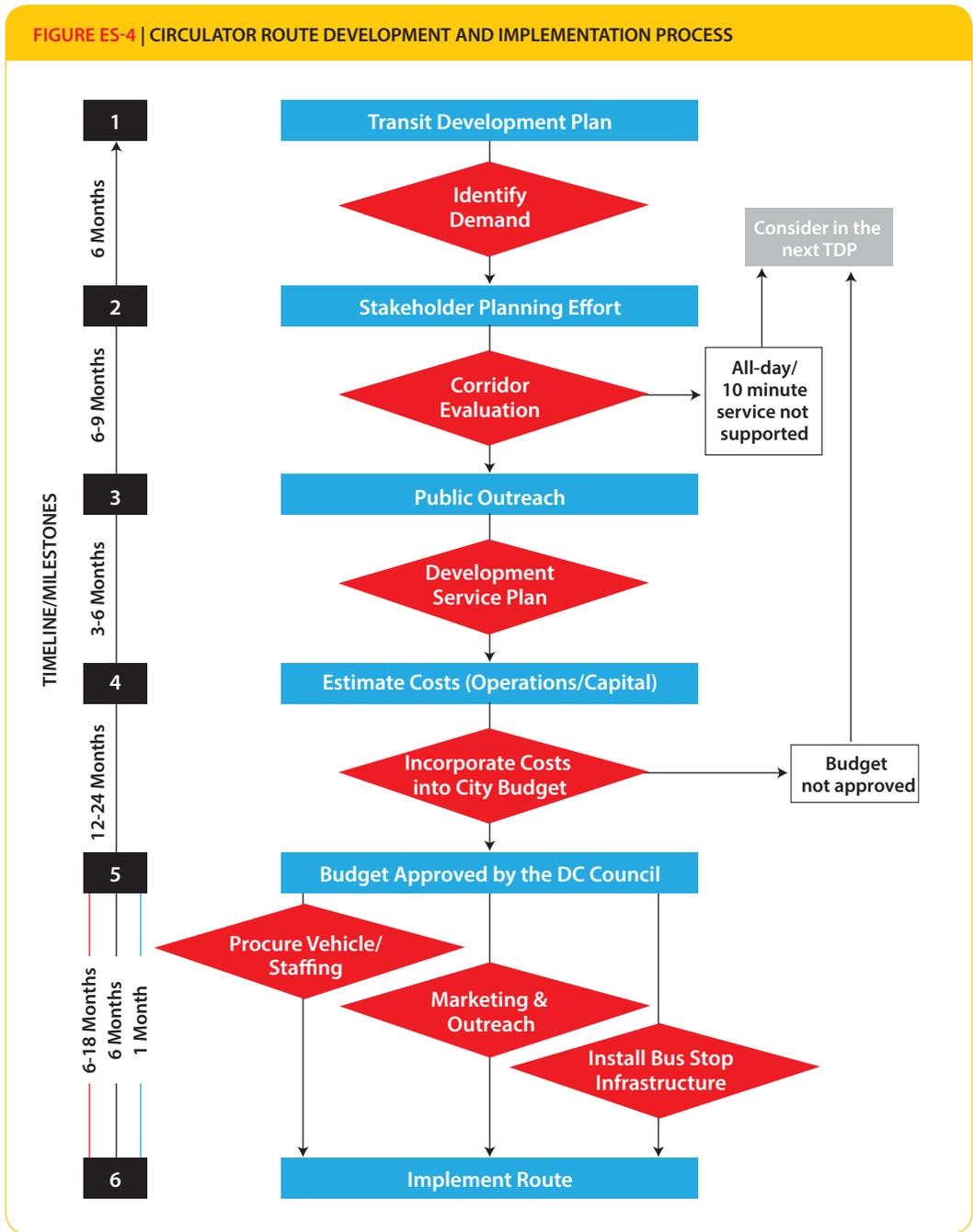
Decisions about Circulator operations are made at three primary levels: system, corridor, and line. The activities, input methods, and approval process for each of these methods is described in **Chapter 11**. The overall Circulator route development and implementation process is depicted in **Figure ES-4**.



Public Participation Process

DDOT should continue to provide the public with opportunities to provide feedback on the Circulator. This is accomplished through semi-annual forums, public comment on the DDOT and Circulator websites, and via an annual Circulator survey will also continue to provide valuable feedback. Additional detail regarding the public participation process is provided in **Chapter 11**.

FIGURE ES-4 | CIRCULATOR ROUTE DEVELOPMENT AND IMPLEMENTATION PROCESS





Circulator Issues for Further Consideration/Study

There are a number of issues that have arisen over the course of the 2014 TDP Update that should be carried forward for additional consideration and/or study. Many of these issues relate to policies or require detailed operational studies that go beyond the scope of this TDP Update. Issues that were identified as policy considerations are described to facilitate continued dialogue among stakeholders. Additional planning studies are recommended to be conducted to more fully assess needs that were identified by stakeholders, and/or based on transportation deficiencies that were identified during the TDP update. New policies, changes to existing policies, and the results of these studies, if not carried out in the short-term, will be incorporated into the next TDP update.



Operational Issues

All of the Circulator routes face operational challenges on a daily basis. Typically these occur during the peak periods when vehicular traffic is greatest and delays on the roadway network are most pronounced. As a result many of the routes suffer from poor headway adherence (inability to provide service that arrives at least every 10-minutes) and buses are unable to complete the route in the designated amount of time resulting in missed trips. There are several measures that DDOT can undertake to improve the operating environment in which the buses operate including:

- » Bus Priority Treatments
- » Intersection Evaluations
- » Parking and Enforcement
- » Bus Stop Consolidation

The transit plan section of the moveDC Multimodal Long Range Transportation Plan identifies six key transit operational improvement strategies that will benefit all surface transit, including Circulator¹. They are exclusive transit lanes (dedicated lanes); traffic signal operations enhancements; queue jump and bypass lanes; transit stop consolidation; bus bulb-outs; and, pre-payment of bus fares.

ES 8.2 Additional Studies

The following issues were identified for further study during the 2014 TDP Update:

- » New route serving NoMa – Service Study Anticipated to Begin Fall/Winter 2014.
- » Union Station – Navy Yard Schedule and Span Pilot Study.
- » Implement a detailed and coordinated marketing strategy and deploy new marketing efforts based on this plan to promote the existing and planned Circulator service.

ES 8.3 Policy Considerations

The following policy considerations have been identified for continued dialogue within DDOT and with key stakeholders.

ES8.3.1 Markets that Support 10 Minute Headways

Although a significant portion of the District presents a dense land use profile and the District population is expanding at a robust pace, there are in fact a limited number of markets that can support a policy headway of 10 minutes key to the DC Circulator brand. A recent analysis of all Circulator service revealed several issues with the existing routes including:

- » Overcrowding of some routes during peak periods (primarily the PM peak period).
- » Low ridership during non-peak periods (mid-day, evenings).
- » Low ridership on weekends.

To address the first issue, overcrowding, a typical response would be to increase service where overcrowding is present; accomplished by adding buses to a route and reducing the time between buses (reducing headways). To address the second issue a typical response would be to decrease service at times when it is underutilized; accomplished by removing buses from a route to expand the time between buses (increasing headways).

As noted in **Chapter 11**, standards for decision-making have not yet been codified. As such, there is no method by which to address the issues noted above, this is, Circulator routes operating in markets that do not support all-day 10-minute service. Moving forward this issue will need to be addressed as part of the broader discussion on governance.

ES8.3.2 Fiscal Stewardship

Fare policy, and the fiscal needs of the system, must be considered in the broader discussion of the Circulator's original core goals: improving the quality of the surface transit experience in order to stimulate non-bus riders to use a bus for short trips; demonstrating to other transit operators that a focus on improving the rider's transit experience builds ridership and popularity of bus service; and to contribute to reducing congestion and pollution. Ultimately the District may decide that maintaining a low fare, and accepting a lower than ideal fare recovery ratio, is an acceptable tradeoff in the pursuit of the Circulator's core goals but this will in turn require a greater financial commitment in providing the service. **Appendix B** describes the potential impacts of various fare scenarios. This issue will need to be included in the dialogue on governance, decision-making, and the District budget process.