



Legislation Details (With Text)

File #: 23-1092 **Name:**

Type: Resolution **Status:** Agenda Ready

File created: 4/28/2023 **In control:** City Council Legislative Meeting

On agenda: 6/27/2023 **Final action:**

Title: Public Hearing and Consideration of a Resolution to Endorse the Duke Street Transitway Advisory Group Recommendation for a Preferred Concept Design for the Duke Street Corridor.[ROLL-CALL VOTE]

Sponsors:

Indexes:

Code sections:

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Date	Ver.	Action By	Action	Result
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City of Alexandria, Virginia

MEMORANDUM

DATE: JUNE 20, 2023

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

THROUGH: JAMES F. PARAION, CITY MANAGER /s/

FROM: TARRENCE MOORER, INTERIM DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES

DOCKET TITLE:

Public Hearing and Consideration of a Resolution to Endorse the Duke Street Transitway Advisory Group Recommendation for a Preferred Concept Design for the Duke Street Corridor.[ROLL-CALL VOTE]

ISSUE: Consideration of a resolution (Attachment 1) to endorse the Duke Street Transitway Advisory Group recommendation for redesigning Duke Street to create a bus rapid transit (BRT) corridor.

RECOMMENDATION: That the City Council adopt the Duke Street Transitway Advisory Group

recommendations for a preferred near-term concept design and long-term plan for consideration in the Duke Street Small Area process for the Duke Street Corridor.

BACKGROUND: Bus Rapid Transit (BRT) encompasses several elements aimed at improving bus service speed and reliability to make it a better experience for current riders and to attract new riders. It provides better choices for residents and visitors, reducing emissions, and managing the growing travel demand for the corridor. Elements of BRT include dedicated transit lanes, transit signal priority, level boarding, consolidation of closely spaced bus stops, and frequent service.

Although travel patterns changed during the pandemic, by 2022, ridership on Duke Street surpassed pre-pandemic levels, thanks to factors such as increased service frequency, fare-free DASH service, the introduction of the 28A route in the eastern part of the corridor, and the broader trend of bus travel being less impacted by changing work patterns than other modes. Despite strong ridership, now over 3,000 weekday boardings, the corridor faces challenges in terms of on-time performance (67% on DASH during the PM Peak in Spring 2023), stop accessibility, and passenger comfort. Duke Street is also characterized by a high number of crashes, and bus stops often lack basic amenities and direct access.

The Duke Street corridor was initially identified as one of the City's three high-capacity transit corridors in the 2008 Transportation Master Plan in order to serve Alexandria's densest areas with high service transit. This designation was later reaffirmed in the 2012 Transit Corridors Feasibility Study, the 2020 Environmental Action Plan 2040, the 2020 Alexandria Transit Vision Plan, and the 2021 Alexandria Mobility Plan. It is consistent with the City's 2021 ALL Alexandria initiative and Vision Zero Policy.

Recognizing the continued need for the project, but also that it had been almost ten years since the adoption of the 2012 preferred design for the corridor, the City initiated a reassessment of the Duke Street Transitway concept to ensure the advancement of a design that aligned with current community priorities, new development, and the most recent best practices for bus corridors. To ensure that community feedback from across the corridor and from a variety of stakeholders was considered, the City Council directed the City Manager to appoint the Duke Street Transitway Advisory Group (AG). The group was tasked with adopting Vision and Guiding Principles for the project (Attachment 2) and making a recommendation to City Council for near-term concept plans and a long-term vision for the corridor (Attachment 3).

The project was broken into three phases, each one building on the outcome of the prior.

Phase I (Spring 2021) of the project involved extensive public engagement efforts centered on getting community feedback about their concerns with the corridor and vision for the future of Duke Street. While bus improvements remain the primary focus of the project, the community also highlighted safety, space for walking and biking, desire to maintain service roads and better management of congestion as priorities. This phase informed the Vision and Guiding Principles that provided a framework for the design options as well as the various options that should be considered in different segments.

Phase II (Fall 2022) looked at a variety of busway design options for various segments along the corridor. The options ranged from mixed traffic with technology upgrades only, various one-way options for buses, and dedicated bus lanes either in the center or along the curb. The key feedback requested from this phase was centered on understanding the community priorities and tradeoffs they were willing to make around the roadway design. This phase informed a narrowing of options to be considered in more detail and again pre-defined metrics that aligned with the guiding principles. The AG selected two options to advance for each segment.

Phase III (Spring 2023) provided more detailed analysis of the selected options for each segment and created two end-to-end corridor designs for consideration. With two main options, the team was able to provide information related to travel times for buses and vehicles, ridership projections, safety, cost, and a variety of other metrics (Attachment 4). The key feedback requested during this phase was to understand what people liked or did not like about the proposed concepts. This phase informed the near and long-term plans that the AG recommended for Council consideration.

Over the past two years, the project team has worked to engage and get feedback from the community in a variety of ways and has heard from thousands of people who have provided input in ways that work best for them. The full community engagement summary can be viewed in Attachment 5. Methods of outreach included social media, direct mailers, online feedback forms, public meetings, bus stop chats (both virtually and in-person), pop-up events, and targeted outreach to businesses, civic associations, boards, commissions, and other community groups. Letters from boards, commissions, and community groups specific to the selected concept plan under consideration can be viewed in Attachment 6.

DISCUSSION: Any concept that progresses will incorporate fundamental elements of BRT, including transit signal priority, level or near level boarding, pedestrian accessibility and safety enhancements. All bus stations will undergo upgrades to provide shelters, real-time transit screens, and other amenities aimed at enhancing the overall customer experience. These stations will be strategically spaced, approximately $\frac{1}{4}$ to $\frac{1}{2}$ mile apart, ensuring safe and convenient access for passengers, and all buses operating along the corridor will utilize these stations.

Input from both Phase I and Phase II and a preliminary assessment of traffic volumes and delay informed the decision to leave the residential section of the corridor from Jordan to Wheeler largely untouched in the near-term. After Phase II outreach was complete, the AG selected two concepts to advance for further design and analysis:

- Concept A - Mostly Center Running with some mixed traffic
- Concept B - Mostly Curb Running with more mixed traffic

Additionally, the AG and the community provided substantial input on curb features (sidewalks, bicycle facilities, green space, etc.). The AG considered where to provide space for people walking and biking and how that might look and fit into the plans to advance the Alexandria Mobility Plan designation of Duke Street as an enhanced bicycle corridor. To provide an easier way for the community to consider these options, the project team provide two general concepts for feedback:

- Curb Concept Y - More separated pedestrian and bicycle facilities
- Curb Concept Z - More shared pedestrian and bicycle facilities

See Attachment 4 for both busway and curb concepts under consideration.

Based on detailed analysis, both Busway Concepts A and B demonstrated that they aligned with the guiding principles for this project. They both demonstrate similar benefits for convenience and efficiency, with Concept A achieving slightly better results for bus travel times and reliability and for vehicle efficiency, based on the transportation model results, which assumes full compliance with bus lane rules. Safety was the main differentiating factor between the two concepts. While both concepts will be making improvements to safety, Busway Concept A (Mostly Center Running) has more features that can substantially reduce pedestrian and left turn angle crashes. Additionally, the Alexandria Fire Department stated a preference for the recommended concept as it provides unrestricted lanes for improved response times for emergency vehicles.

The AG provided a near-term recommendation for Busway Concept A and Curb Concept Y. The focus is on

implementing a center running busway and separated bicycle and pedestrian facilities wherever possible. The plan acknowledges the potential for accommodating improved bicycle and pedestrian facilities on some service roads by utilizing public street space. This could involve creating separated bicycle and pedestrian facilities or implementing shared slow streets while ensuring continued access to homes, parking, and green spaces. The specific details of these accommodations will be refined in collaboration with the community.

In situations where space is limited, it is recognized that bicycles may need to yield to pedestrians on sidewalks. Additionally, it is noted that, if necessary to reduce costs, mixed traffic could be substituted with a center running eastbound lane between Wheeler and Roth.

The vote was 8 to 1 to adopt the recommendation (Attachment 3), with the representative from the Federation of Civic Associations dissenting because of the concern that the long-term plan may result in eminent domain being used and favoring different design options. Meeting notes from the Advisory Group discussion and vote on the recommendation can be found in Attachment 7. This recommendation includes pursuing a long-term plan for center running, dedicated bus lanes along the entirety of the corridor through the Duke Street Small Area Plan process.

Should City Council adopt the resolution, the project team will move forward with the design phase for the corridor. During this phase, more decisions will need to be made before finalizing the design and implementing it. Staff will collaborate with the community as the design progresses to determine the most effective utilization of the service roads, consider the impact on the right of way, and address other elements that require further consideration. Certain changes to the roadway, as required by the code, must be reviewed by the Traffic and Parking Board and/or the City Council before they can be implemented. As the design work continues, there will be multiple opportunities for the community to actively participate and provide specific input regarding the design decisions.

Once a design team is established, staff will present a recommendation to the City Council regarding the establishment of a new design oversight body. The long-term plan recommended by the AG will be further considered and incorporated into the City's Master Plan through the Duke Street Small Area Plan process.

FISCAL IMPACT: The Northern Virginia Transportation Authority (NVTA) awarded the City a total of \$87 million for planning, design, and construction of a transitway along the Duke Street Corridor, stretching from the former Landmark Mall to King Street Metro Station, of which approximately \$85 million remains for the near-term project. The project team will work to develop a design that fits within the budget. Should refined cost estimates for the recommended plans come in over budget as design advances, staff will look to the priorities outlined in the AG recommendation to reduce the scope of the near-term project. As with many phased projects, there will be future opportunities to seek additional grant funding for near- or long-term improvements along the corridor.

ATTACHMENTS:

Attachment 1: Resolution

Attachment 2: Vision and Guiding Principles

Attachment 3: Advisory Group Recommendation with Roll Plot

Attachment 4: Concept Comparison and Metric Summary

Attachment 5: Engagement Summary

Attachment 6: Board, Commission, & Community Group Letters

Attachment 7: May 25 Advisory Group Meeting Notes

Attachment 8: Presentation

STAFF:

Emily A. Baker, Deputy City Manager

Hillary Orr, Deputy Director of Transportation, T&ES

Christopher Ziemann, Transportation Planning Division Chief, T&ES

Jennifer Monaco, Transit Program Manager, T&ES