

EXECUTIVE SUMMARY

As a significant connection between the Alexandria Waterfront, the surrounding Old Town neighborhood and beyond, the 100 block of King Street, with Union Street on the east and Lee Street on the west, is a destination for local residents, employees, visitors and tourists. It is active with vehicles, bicyclists, pedestrians, transit, motorcycles, motorcoaches, and deliveries. The purpose of this study is to develop and examine the feasibility of design options to transform the 100 block of King Street into a gateway between Old Town and the revitalized Alexandria waterfront, and analyze how the street can address the needs of all users. The study included an assessment of existing conditions, robust public engagement, an analysis of existing and future transportation impacts and the development of conceptual designs and functional alternatives. The options described will be used for consideration in a future capital improvement program budget.

BACKGROUND

This Lower King Street Multimodal Feasibility Study examines options to enhance multimodal circulation along the Alexandria Waterfront in Old Town, which was identified as a goal in the Waterfront Small Area Plan. Adopted in 2012, this plan identified King Street as the gateway to the City and specifically noted the block of King Street between Union and Lee Streets as one of the busiest during tourist season. The Plan also recommended a pedestrian plaza at the unit block of King Street (i.e. King Street between Union Street and the waterfront) and the Strand with easy access to the free King Street Trolley.

The 2012 Union Street Corridor Study, which evaluated multimodal circulation and safety along the length of Union Street, culminated in a long-term vision for a shared street on Union Street between Prince Street and Cameron Street. During this study, the Waterfront Commission recommended a study of the 100 block of King Street to explore the feasibility of different pedestrian improvements or the need to pursue other design options on King Street. Several other previous studies and on-going projects all aim to improve the multimodal environment in Old Town and particularly the Waterfront area (e.g.

2005 King Street Retail Strategy, 2010 Old Town Area Parking Study, Waterfront Landscape Design Project, Waterfront Flood Mitigation Project).

KING STREET TODAY

A benefit of the Old Town neighborhood is the intact gridded street network and short, walkable blocks. The Waterfront is a major destination where residents and visitors alike travel by various modes. Those who drive a personal vehicle can park on or off street and walk to many different shops, restaurants and businesses without moving their car. The ability to accomplish these short trips on foot encourages people to park once for multiple destinations in the area, allowing King Street to function as a vibrant commercial district, rather than a through street for cars.



King Street on a busy weekend afternoon

Lower King Street experiences varying demands from different users throughout the day, week, and year. At times of peak activity, such as the summer season and on weekends, pedestrians significantly outnumber all other users; however, pedestrians must operate in a constrained space (approximately 5 to 9 feet of available sidewalk width). Further, during busy times, some of the intersections in the study area become congested and there are conflicts between motorists and pedestrians, making it challenging for motorists and uncomfortable for pedestrians to cross the intersection. Crosswalks also become crowded, pedestrians sometimes cross outside of the crosswalk, and motorists often encroach on crosswalks. There is also on-street parking on both sides of the street, and the free King Street Trolley runs along King Street between the Metro and the Waterfront. There is also bicycle activity in the study area; Union Street, which runs

perpendicular to King Street serves as an on-road connection for the Mt. Vernon Trail. Further, Capital Bikeshare was introduced in 2012 with bikeshare stations within blocks of the 100 block of King Street.

EARLY PUBLIC ENGAGEMENT

A walking tour, focus group meetings and a public meeting were held in March 2014 to gather concerns and interests from business owners, visitor and tourism associations, residents and City departments (e.g. fire, transportation, maintenance and transit). During the walking tour, attendees provided input on issues and opportunities for pedestrian, bicycle, automobile, delivery and transit improvements, as well as integration with previous plans and on-going projects. The tour was also an opportunity for the business owners to describe the typical day-by-day function of the street and for the participants to witness some of them (e.g. deliveries, trash pickup, and parking) firsthand.



Participants at March 10 Walking Tour

Three focus group meetings were held the same day as the walking tour and included a resident focus group, a business focus group, and a City staff focus group. These groups participated in roundtable discussions of the issues and opportunities for the 100 block of King Street.

Feedback from the walking tour and focus group meetings suggested that this project should support:

- A more walkable and pedestrian-friendly King Street;
- Attractive and functional design with good programming;
- Good wayfinding for all users;
- A plan for management and maintenance;
- Flexibility in design to meet the needs of different users at different times;
- Management of deliveries, motorcoaches, the King Street Trolley, and parking;

- Improved safety and congestion relief, particularly at the intersection of King and Union Streets;
- Improved knowledge of case studies of shared streets or pedestrian malls.



Popular photos from visual preference surveys regarding street character, function and design at March 20 public meeting

The City hosted a public meeting which included two interactive exercises: one to collect attendees’ visual preferences of streetscape designs and another asked about their likes and dislikes of King Street today. Generally, attendees:

- Expressed interest in a shared street and/or pedestrian-only street, though some preferred the existing design of King Street;
- Emphasized the importance of a high-quality, attractive streetscape with seating and outdoor dining;
- Shared concerns about conflicts between modes today and in the future;
- Expressed concerns about loss of on-street parking.

ESSENTIAL ELEMENTS AND VALUES

Based on feedback expressed by the public, the following were established as essential elements for all options, and values for evaluating options for the 100 block of King Street.

Essential elements for all options:

- Maintain **access for emergency vehicles**
- Allow on-street **delivery access** during designated times and improve management of alleys for deliveries
- Design must be **flexible** enough to allow closure when needed
- Design must be **attractive and functional**
- Coordinate with Waterfront Plan to have joint governance to **share maintenance**
- Continued **management of parking resources** in Old Town.

Values for evaluating options:

- Increase walking space
- Increase outdoor dining and retail
- Provide direct and efficient trolley service
- Minimize impacts to residential streets
- Improve user comfort at intersections (safety)

DESIGN OPTIONS AVAILABLE FOR POTENTIAL FUTURE IMPLEMENTATION

Several options were developed for the 100 block of King Street to reprioritize the street to address the needs of all users – pedestrians, bicyclists, transit riders and motorists. The following table provides each of the options and indicates which users have access to the street and whether the option achieves the established project values. With the exception of “Option 1 – Existing Configuration”, all options show a flush street, meaning that there is no vertical curb and the street is at a similar elevation (with necessary grades for proper drainage) from building face to building face. This flush condition allows the street to become a truly flexible space, and not be “hard wired” to allocate distinct spaces for different modes. When the street is closed to vehicular traffic, the entire space can be easily accessible for people with mobility issues, pushing strollers and carts, movable chairs and furniture, setting up stages, etc.

OPTIONS		VALUES				
Title	Who has access?	Increase Walking Space	Increase Outdoor Dining and Retail	Provide Direct and Efficient Trolley Service	Minimize Impacts to Residential Streets	Improve User Comfort at Intersections
1 Existing Configuration*				✓	✓	
2 Widen Sidewalk/ No Parking*		✓	✓	✓		✓
3 Pedestrian Only		✓	✓			✓
4 Pedestrian/ Trolley Only		✓	✓	✓		✓
5 Widen Sidewalk/ Parking Maintained*		✓		✓	✓	✓

* Can be closed for pedestrians only seasonally, on weekends or during specific times of day

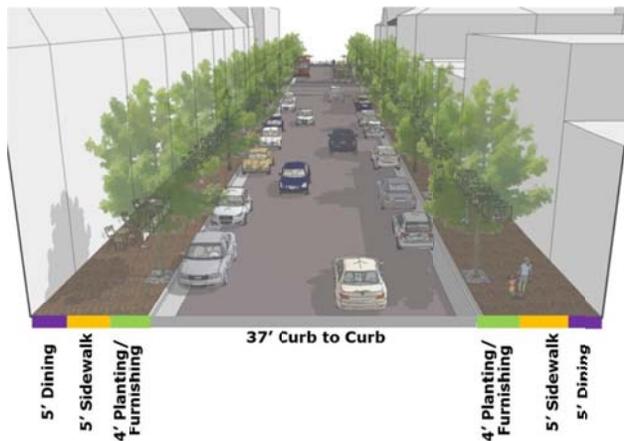


ANALYSIS OF OPTIONS

See the descriptions of each option, below. All options can be designed and implemented to satisfy the essential elements described above. Emergency vehicle access will always have access to the street. For options where the street is closed to cars, bollards at each end of the block can be lowered for emergency vehicles. The design of any option will be attractive and functional and will allow for closure to cars seasonally, during special events or on the weekend. Regarding parking, the City is continually working to improve management of both on- and off-street parking in Old Town including a comprehensive update to the parking inventory completed in Fall 2014. In Options 2, 3

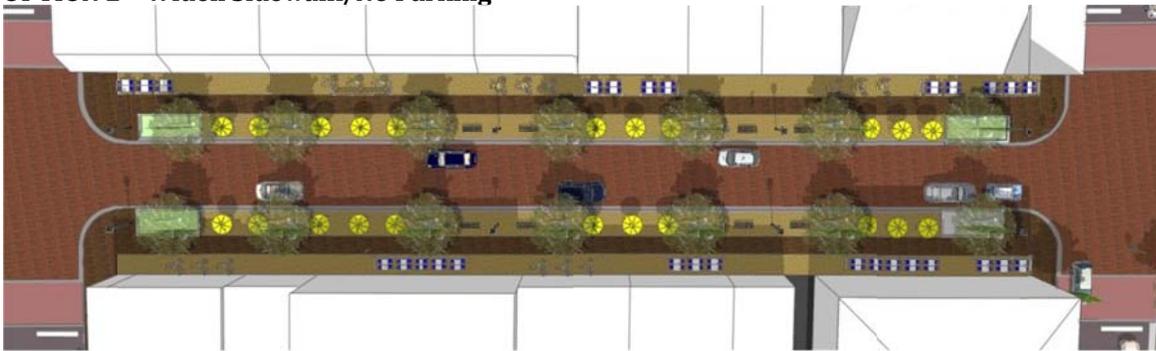
and 4, on-street parking will be removed, eliminating approximately 25 on-street spaces. However, within a ¼ mile of the 100 block of King Street, there are over 2,500 on- and off-street parking spaces. In all options, on-street delivery will be allowed during designated times and combined with improved management of existing alleys (e.g. parking restrictions in Fayette Alley to allow for trucks to access business). Since Options 2, 3, 4 and 5 all require the street to be reconstructed as a flush street, the cost of construction is similar. Planning-level construction cost estimates indicate that these options would cost approximately \$2 million to construct.

OPTION 1 - Existing Configuration



- Street design includes curb and gutter with street lower than sidewalk.
- Sidewalks are constrained, particularly during peak pedestrian periods.
- Limited space for outdoor dining and retail.
- Continuous Trolley routing to Waterfront on King Street.
- Street is open to cars, trolley, bicycles, and emergency vehicles. On-street parking (25 spaces).
- Constrained sidewalks and crosswalks without curb extensions reduce user comfort at intersections.

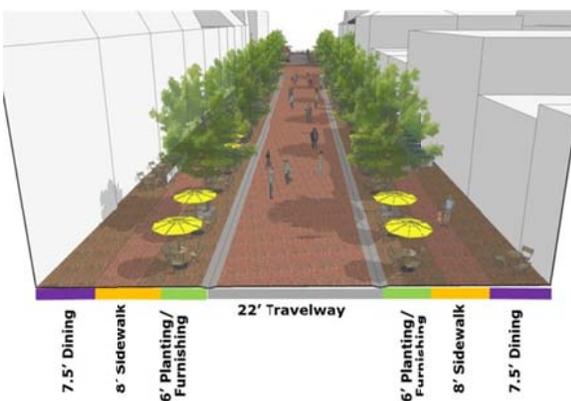
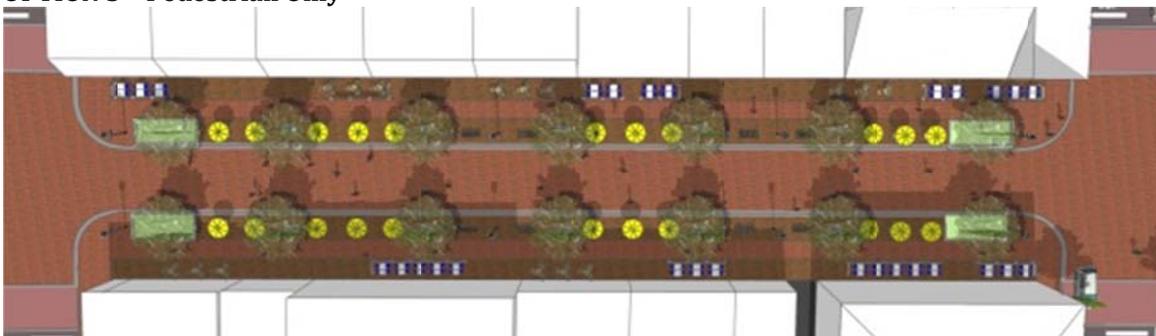
OPTION 2 - Widen Sidewalk/No Parking



7.5' Dining
8' Sidewalk
6' Planting/
Furnishing
22' Travelway
6' Planting/
Furnishing
8' Sidewalk
7.5' Dining

- Flush street design.
- Wider sidewalks on both sides of the street. Street can be closed for pedestrians only during seasonal, weekends, or specific time of day, further increasing walking space.
- Additional outdoor dining and retail.
- No change to Trolley routing.
- Street would be open to cars, Trolley, bicycles, and emergency vehicles. Parking (25 spaces) would be eliminated.
- Wider sidewalks would allow pedestrians to cross in larger groups and curb extensions reduce crossing distance.
- Preliminary construction cost estimate: \$2,000,000

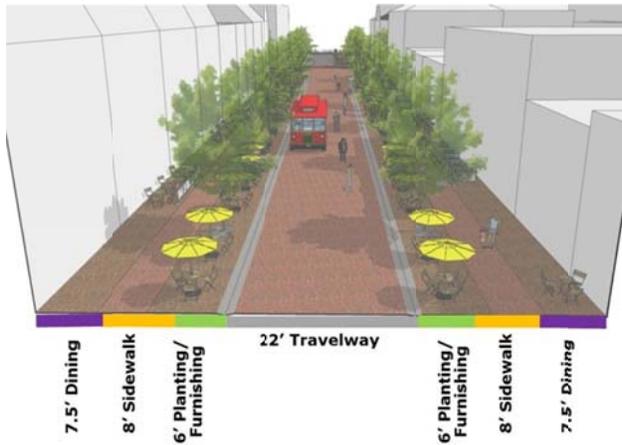
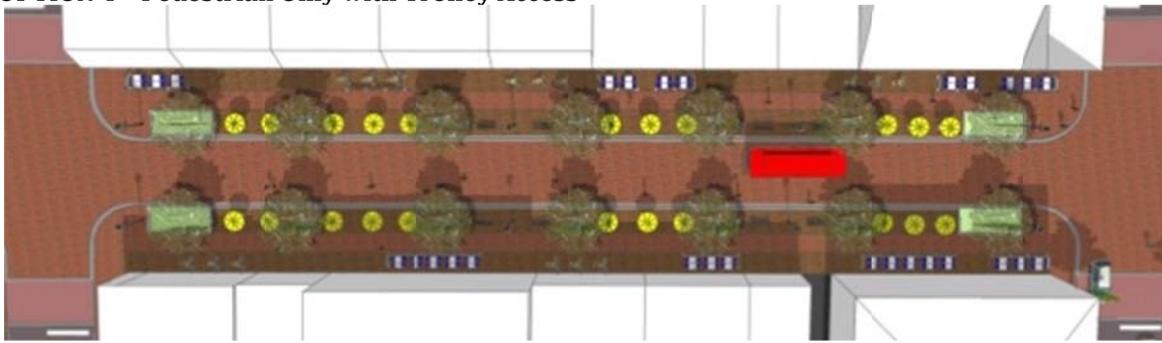
OPTION 3 - Pedestrian Only



7.5' Dining
8' Sidewalk
6' Planting/
Furnishing
22' Travelway
6' Planting/
Furnishing
8' Sidewalk
7.5' Dining

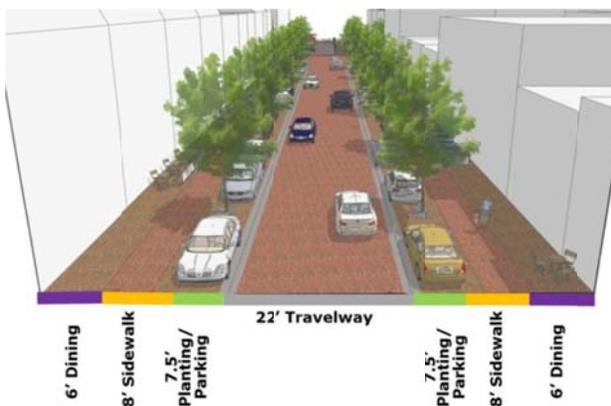
- Flush street design.
- Wider sidewalks and increased walking space in the street.
- Additional outdoor dining and retail.
- Trolley would be rerouted or terminated at Lee Street.
- Street would be open to pedestrians and emergency vehicles. Private vehicles would be diverted to surrounding streets. Parking (25 spaces) eliminated. Deliveries would occur during restricted periods and in alleys.
- Wider sidewalks would allow pedestrians to cross in larger groups and curb extensions reduce crossing distance. Reduced conflict potential at intersections.
- Preliminary construction cost estimate: \$2,000,000

OPTION 4 – Pedestrian Only with Trolley Access



- Flush street design.
- Wider sidewalks and increased walking space in the street, except when Trolley is present.
- Additional outdoor dining and retail.
- No change to Trolley routing.
- Street would be open to pedestrians, trolley and emergency vehicles. Private vehicles would be diverted to surrounding streets. Parking (25 spaces) eliminated. Deliveries would occur during restricted periods and in alleys.
- Wider sidewalks would allow pedestrians to cross in larger groups and curb extensions reduce crossing distance. Reduced conflict potential at intersections.
- Preliminary construction cost estimate: \$2,000,000

OPTION 5 – Widen Sidewalk / Some Parking Maintained



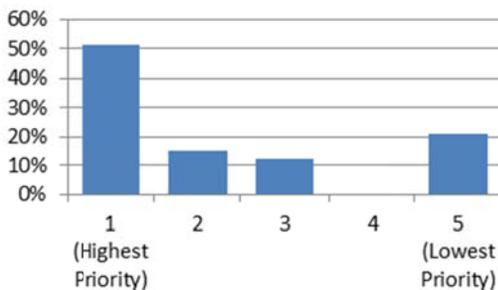
- Flush street design.
- Wider sidewalks on both sides of the street. Street can be closed for pedestrians only during seasonal, weekends, or specific time of day, further increasing walking space.
- Potential for some additional outdoor dining and retail during street closures.
- No change to Trolley routing.
- Street would be open to cars, Trolley, bicycles, and emergency vehicles. Would maintain approximately half of the existing 25 spaces.
- Wider sidewalks would allow pedestrians to cross in larger groups. Curb extensions reduce crossing distance.
- Preliminary construction cost estimate: \$2,000,000

FEEDBACK ON OPTIONS

At a public meeting held in May 2014, attendees were asked to provide feedback through a survey on the project values, state their preference on design options and indicate their comfort level with various closure types. Most survey respondents were Alexandria residents with many living in Old Town.

Attendees ranked the project values in the following order:

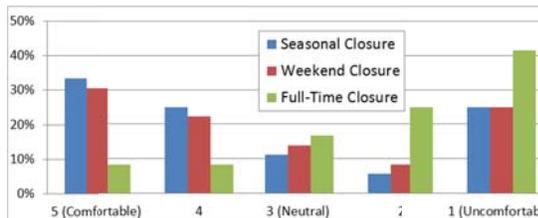
1. Minimize impacts to residential streets.
2. Increase walking space.
3. Improve user comfort at intersections.
4. Provide direct/efficient trolley service.
5. Increase outdoor dining and retail.



Graph showing rank of "Minimize Impacts to Residential Streets" from May 29, 2014 public meeting survey

Attendees were asked to rank various design options presented. Wider sidewalks scored the best, flush street scored second best and existing sidewalks scored the worst.

Attendees were also asked about their comfort level with various closure types. Generally, attendees were more comfortable with a seasonal or weekend closure and least comfortable with a full-time closure.



Graph showing level of comfort with street closure options from May 29, 2014 public meeting survey

At a meeting with representatives of the Old Town Civic Association on August 11, 2014, several key themes from comments included:

- preference for Option 5 because it offers the best compromise of all options (wider sidewalk, maintain some parking);
- interest in options that narrow street to encourage cars to move more slowly;
- concern about management of on-street parking;
- preference for trolley routing options that stop at city Hall because the trolley currently blocks views of Waterfront;
- concern about giving too much space to private interests such as outdoor dining rather than having the gained space be used by pedestrians.

At a meeting with business representatives on October 1, 2014, several key themes from comments included:

- recognition that the realization of the Waterfront Plan will attract more people, so some change is needed;
- continued improvement to parking management is essential (e.g. wayfinding, increasing parking garage utilization, management of employee parking);
- preference for Concept 4 (pedestrian/trolley only) and Concept 5 (widened sidewalk/parking maintained);
- interest in concepts with trolley stopping at city hall;
- concern about confusion associated with seasonal closures.

LOOKING AHEAD

Input from the City staff, interviews, public meetings, fieldwork and traffic analysis have all contributed to the findings in the subsequent chapters. Although this project is only looking at the feasibility of the options presented, it can guide the future development of Lower King Street and can provide a vision for what the merchants and residents in the neighborhood desire. Even though it is always difficult to reach full consensus on a particular concept, or change to the existing form and function of a place, this study is a great first step in analyzing and gathering public input on these options, which will be considered in a future capital improvement program budget for potential implementation.

