Figure A: Project Location Map

Union Street Corridor Study
City of Alexandria
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re-opened connection to the Mount Vernon Trail
Observations and Data Collection

Legend

Weeklong Traffic Counts
Peak-Hour Turning-Movement Counts
12-Hour Turning-Movement Counts and Video Analysis

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Figure B: Observations and Data Collection Location Map
Figure C: Intercept Survey Collection Locations

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Figure D:
Existing Cross Section Location Map
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Cross Section 1: Pendleton to Concord

- 3.5' Parking
- 24' Parking/Shared Lane
- 20' Parking/Shared Lane
- 4' Parking

- 5' Sidewalk

Cross Section 2: Concord to Queen

- 4' Park.
- 7' Bike Lane
- 5' Bike Lane
- 10' Travel Lane
- 10' Travel Lane
- 5' Bike Lane
- 7' Parking

- 4' Sidewalk
- 7.5' Sidewalk

Cross Section 3: Queen to Prince

- 4' 13' Shared Lane
- 13' Shared Lane
- 7' Parking
- 4' Parking

- 4' Sidewalk
- 4' Sidewalk

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Figure E: Union Street Existing Cross Sections 1-3

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Cross Section 7: Wilkes to Gibbon

5' 18' Parking/Shared Lane 12' Shared Lane
4' Sidewalk 5' Sidepath

Cross Section 8: Gibbon to Franklin

5' 18' Parking/Travel Lane 18' Parking/Travel Lane 6'
4' Sidewalk 6' Sidewalk

Cross Section 9: Franklin to Jefferson

5' 17' Parking/Travel Lane 11' Travel Lane 6'
4' Sidewalk 6' Sidewalk

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Figure G: Union Street Existing Cross Sections 7-9
Figure H: Total AM Peak-Hour Volumes
Figure I: Total Midday Peak-Hour Volumes

Total Volumes with Mode Breakdown
Midday Peak Hour

- **Union St & Pendleton St**
  - Tues: 2% Vehicles, 3% Bicycles, 6% Pedestrians
  - Wed: 3% Vehicles, 3% Bicycles, 5% Pedestrians
  - Thurs: 6% Vehicles, 3% Bicycles, 2% Pedestrians
  - Fri: 9% Vehicles, 4% Bicycles, 3% Pedestrians
  - Sat: 6% Vehicles, 3% Bicycles, 4% Pedestrians

- **Union St & Cameron St**
  - Tues: 4% Vehicles, 5% Bicycles, 2% Pedestrians
  - Wed: 5% Vehicles, 4% Bicycles, 3% Pedestrians
  - Thurs: 1% Vehicles, 3% Bicycles, 3% Pedestrians
  - Fri: 2% Vehicles, 3% Bicycles, 3% Pedestrians
  - Sat: 3% Vehicles, 2% Bicycles, 1% Pedestrians

- **Union St & King St**
  - Tues: 7% Vehicles, 4% Bicycles, 6% Pedestrians
  - Wed: 7% Vehicles, 4% Bicycles, 6% Pedestrians
  - Thurs: 4% Vehicles, 5% Bicycles, 4% Pedestrians
  - Fri: 5% Vehicles, 5% Bicycles, 5% Pedestrians
  - Sat: 4% Vehicles, 4% Bicycles, 4% Pedestrians

- **Union St & Duke St**
  - Tues: 3% Vehicles, 3% Bicycles, 2% Pedestrians
  - Wed: 4% Vehicles, 3% Bicycles, 2% Pedestrians
  - Thurs: 2% Vehicles, 3% Bicycles, 2% Pedestrians
  - Fri: 1% Vehicles, 3% Bicycles, 2% Pedestrians
  - Sat: 1% Vehicles, 3% Bicycles, 2% Pedestrians

- **Union St & Gibbon St**
  - Tues: 4% Vehicles, 3% Bicycles, 2% Pedestrians
  - Wed: 3% Vehicles, 3% Bicycles, 2% Pedestrians
  - Thurs: 3% Vehicles, 3% Bicycles, 2% Pedestrians
  - Fri: 3% Vehicles, 3% Bicycles, 2% Pedestrians
  - Sat: 3% Vehicles, 3% Bicycles, 2% Pedestrians

- **Union St & Franklin St**
  - Tues: 1% Vehicles, 2% Bicycles, 3% Pedestrians
  - Wed: 2% Vehicles, 2% Bicycles, 3% Pedestrians
  - Thurs: 3% Vehicles, 3% Bicycles, 3% Pedestrians
  - Fri: 3% Vehicles, 3% Bicycles, 3% Pedestrians
  - Sat: 1% Vehicles, 2% Bicycles, 1% Pedestrians

Legend:
- Vehicles
- Bicycles
- Pedestrians
- X% Percent Heavy Vehicles

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Figure I: Total Midday Peak-Hour Volumes
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Figure J: Total PM Peak-Hour Volumes
## Figure K: Weekday AM-Peak Turning-Movement Counts

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Figure L: Weekday Midday-Peak Turning-Movement Counts
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**Figure M: Weekday PM-Peak Turning-Movement Counts**
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**Figure N:** Saturday Midday-Peak Turning-Movement Counts
## Saturday PM-Peak Turning-Movement Counts

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<td>Princess St</td>
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<tr>
<td>Queen St</td>
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<td></td>
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<tr>
<td>Cameron St</td>
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Figure O: Saturday PM-Peak Turning-Movement Counts  
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Figure 3: Crash Data Summary Map

Legend
- Red: car crash
- Purple: car crash w/ ped or bike
- Orange: car crash w/ object
- Green: bike crash w/ ped

Note: crash data from April 2007 to April 2012

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Figure P: Crash Data Summary Map

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Figure T: Royal St & Union St Midblock Peak-Hour Volumes

Legend
Map
Weeklong Mid-Block Count Locations

Charts
- Vehicles (1-15 mph)
- Vehicles (16-20 mph)
- Vehicles (21-25 mph)
- Vehicles (26+ mph)
- Bicycles
- Pedestrians

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0 500 1,000 2,000 Ft

Union between Wilkes & Gibbon

Royal between King & Prince

Royal between Wilkes & Gibbon

Union between King & Prince
Figure 8: Volumes by Speed and Mode on Union Street from King to Prince Street.

Vehicular Weekly Volumes with Speed Breakdown
Union Street between King Street and Prince Street

- 31+ mph
- 26-30 mph
- 21-25 mph
- 16-20 mph
- 1-15 mph

Multimodal 12-Hour Volumes with Mode Breakdown
Union Street between King Street and Prince Street

- Cars
- Heavy Vehicles
- Bicycles
- Pedestrians

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Figure U: Volumes by Speed and Mode on Union Street from King to Prince Street.

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Weeklong Volumes with Speed Breakdown
Royal Street between King Street and Prince Street

- 31+ mph
- 26-30 mph
- 21-25 mph
- 16-20 mph
- 1-15 mph

Multimodal 12-Hour Volumes with Mode Breakdown
Royal Street between King Street and Prince Street

- Cars
- Heavy Vehicles
- Bicycles
- Pedestrians

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Figure W: Volumes by Speed and Mode on Royal from King to Prince
Weeklong Volumes with Speed Breakdown
Royal Street between Wilkes Street and Gibbon Street

- 31+ mph
- 26-30 mph
- 21-25 mph
- 16 - 20 mph
- 1 - 15 mph

Multimodal 12-Hour Volumes with Mode Breakdown
Royal Street between Wilkes Street and Gibbon Street

- Cars
- Heavy Vehicles
- Bicycles
- Pedestrians

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Figure X: Volumes by Speed and Mode on Royal from Wilkes to Gibbon DRAFT
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Fig. U.1: July Volumes by Speed and Mode on Union from King to Prince
Weekly Volumes with Speed Breakdown - July Counts
Union Street between Wilkes Street and Gibbon Street

- 31+ mph
- 26-30 mph
- 21-25 mph
- 16-20 mph
- 1-15 mph

Fig. V.1: July Volumes by Speed and Mode on Union from Wilkes to Gibbon

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