North Mason Street Permanent Project Study

Stakeholder Kickoff Meeting

Presented by
Zach Beard, AICP (CSPDC)
Jacob zumFelde, AICP (City of Harrisonburg)
Chuck Conran, PE (VHB)

December 4th, 2025

Agenda

- Opening and Introductions (MPO led)
- Study Context and Goals (City led)
- Study Effort and Schedule (VHB led)
- Early Study Items Technical Discussion (VHB led)
- Open Discussion (VHB facilitated)

Project Introductions – Stakeholder Group

- CSPDC
  - Zach Beard
  - Paula Melester
  - Ann Cundy
  - Garreth Bartholomew
- City of Harrisonburg
  - Jakob ZumFelde
  - Tom Hartman
  - Timothy Mason
  - James Polhamus
  - Cheryl Spain
  - Gerald Gatobu
  - Thanh Dang
  - Max Irwin
  - Amy Snider
- VDOT
  - Brad Reed
  - Adam Campbell
  - Don Komara
  - Jeremy Mason
  - Shane McCabe
- VHB
  - Chuck Conran
  - Wes Parker
  - Kento Carson

Harrisonburg Rockingham Metropolitan Planning Organization

Celebrating 55 Years CSPDC Central Shenandoah Planning District Commission

vhb

Study Context and Goals

- Jakob to add/modify content
- Community Connectors grant
- Northeast Neighborhood Small Area Plan
- North Mason Street Complete Streets Leadership Academy and Demonstration Project
  - Process and overview of Demonstration Project
  - Community feedback (summary of 1500+ responses)
- Goals and Principles identified through these efforts for any permanent project on North Mason Street

Study Understanding

- Identify preferred typical section for North Mason Street between N Main Street and E Market Street
- Identify preferred intersection design concepts at five (5) intersections:
  - N Main Street
  - E Gay Street
  - E Rock Street
  - E Wolfe Street
  - E Elizabeth Street
- Build upon the successful Demonstration Project in Summer 2025
- Prepare for Round 7 Smart Scale application cycle in Spring/Summer 2026

Study Effort

1. Stakeholder Engagement
   - Stakeholder kickoff meeting → TODAY
   - Six monthly project coordination meetings, some of which will engage a smaller technical working group
2. Data Collection: the City will provide traffic data for the six analysis intersections, including:
   - Speed data
   - Peak hour volume counts
   - Pedestrian/bicycle counts
   - Base condition Synchro models
   - Known development projects within the vicinity

Study Effort

3. Existing Conditions Analysis
   - Operations analysis to include three Measures of Effectiveness (MOEs) for both the weekday AM and PM peak hours
     - Average Vehicular Delay
     - Level of Service
     - 95th Percentile Queue Length
4. Future Baseline Conditions Analysis
   - Determine historical traffic growth patterns – Pathways for Planning (VDOT)
   - Known development projects incorporated into projected traffic growth
   - Anticipated traffic pattern shift due to roadway reconfiguration
   - Traffic forecasting memorandum
   - Future baseline operations analysis with forecasted growth to the selected design year

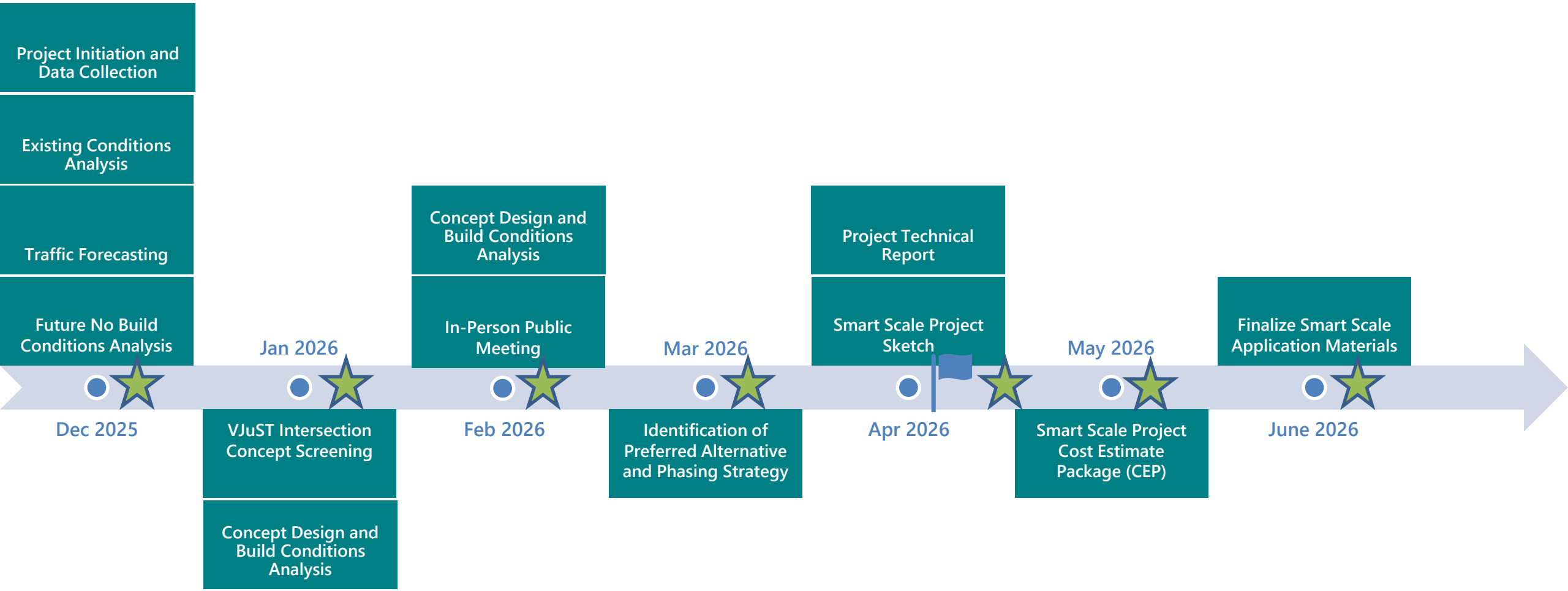
Study Effort

5. Future Build Conditions Analysis
   - Screen potential intersection concepts using VJuST
     - Capacity (V/C ratio)
     - Safety (Number of conflict points)
     - Pedestrian accommodations
   - Stakeholder consensus on two alternatives per study intersection to advance to concept development (January monthly meeting)
6. Concept Development and Evaluation
   - Operations analysis to include MOEs with forecasted growth in the design year
   - Sketch development for:
     - Two alternatives at each study intersection (ten total)
     - Two draft typical section alternatives for N Mason Street corridor
     - Two typical section alternatives overlaid in plan view on the corridor
   - Planning-level cost estimate for two typical section alternatives

Study Effort

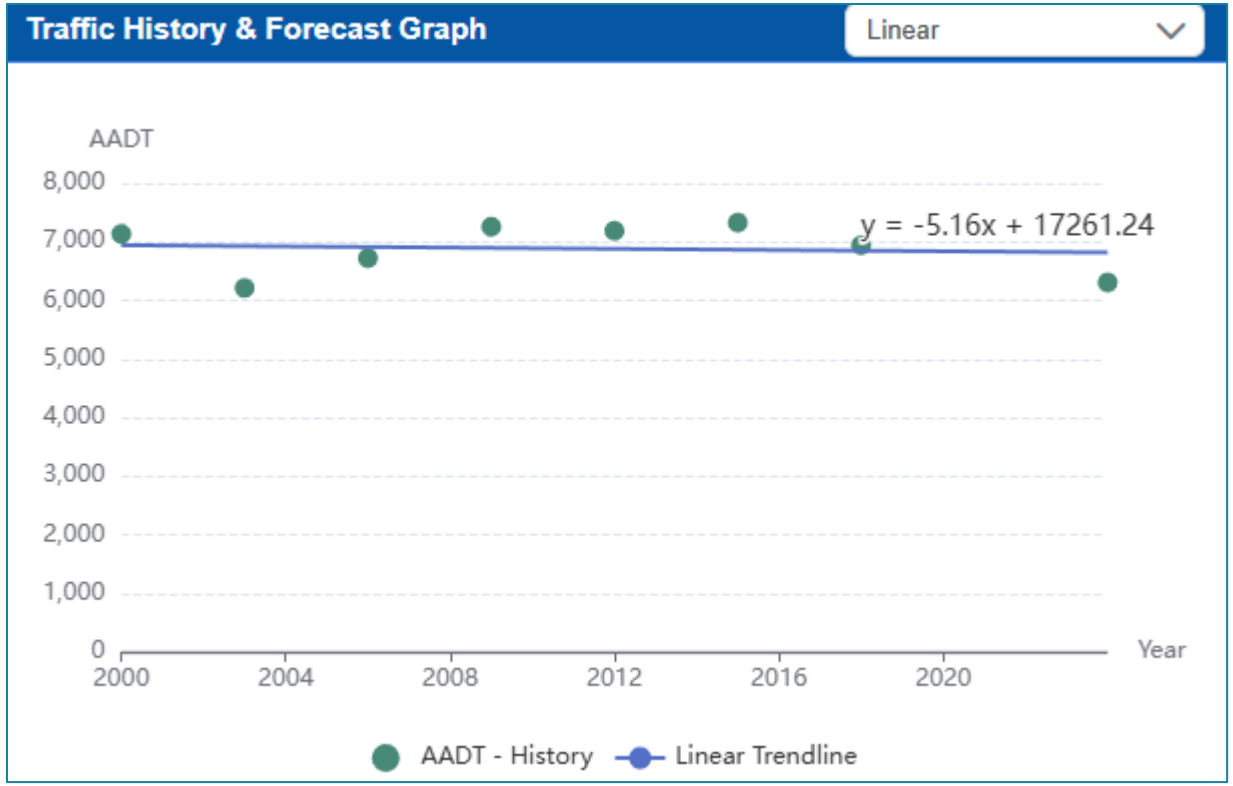
7. Public Engagement
   - In-person public meeting to solicit feedback on typical section and intersection alternative concepts → **Goal is late February for public meeting**
8. Identification of Preferred Alternative
   - Technical analysis, stakeholder engagement, and public feedback inform selection of preferred alternative
   - Evaluation of potential implementation phasing strategy(s)
   - Technical report summarizing technical findings and the preferred alternative selection
9. Preparation of Smart Scale Application Materials
   - Preferred typical section and intersection treatments combined into one refined Smart Scale caliber sketch
   - GIS data layers (utilities, contours, parcel boundaries, etc.) will be added to the project sketch to identify and account for potential impacts
   - Smart Scale caliber Cost Estimate Package (CEP)

Study Schedule



Traffic Forecasting

- Pathways for Planning (VDOT)
  - 23 years (2000-2019, 2022-2024) of historical Average Annual Daily Traffic (AADT) data
    - 2020 and 2021 excluded per VDOT policy due to COVID-impacted traffic counts
  - Annual growth rate derived from all AADT linear regression calculations: **-0.09%**
  - Annual growth rate derived from field-counted AADT linear regression calculations: **-0.07%**
- Per VDOT policy, a minimum annual growth rate of **0.50%** is required for growth
- A 0.50% annual growth rate would likely cover any known development projects
- Proposed design year: 2050



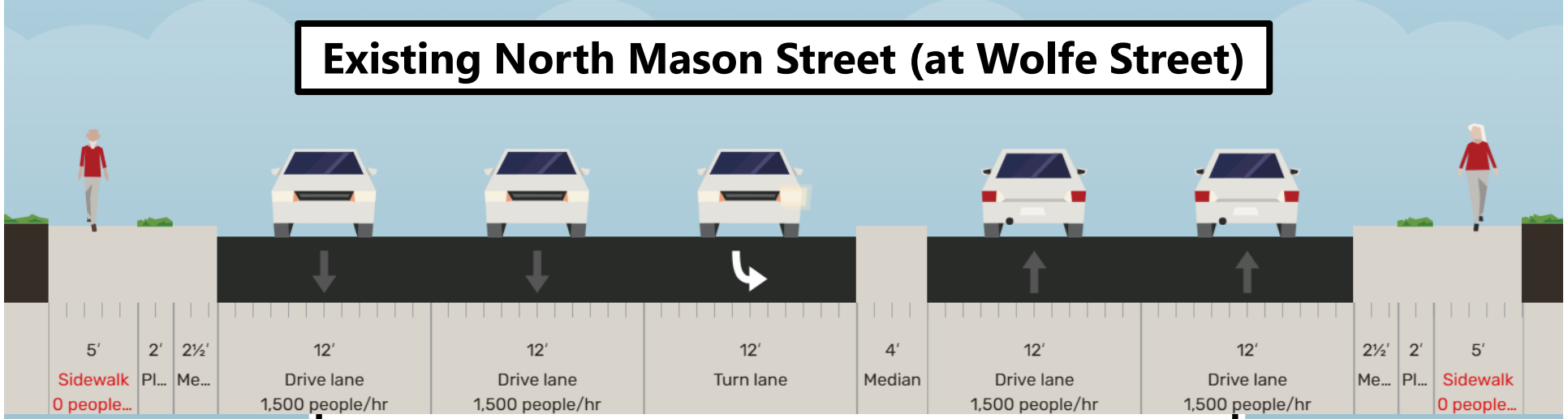
N Mason Street (N Main Street to E Market Street) Counted Traffic History and Linear Regression Graph. Source: VDOT's Pathways for Planning Tool

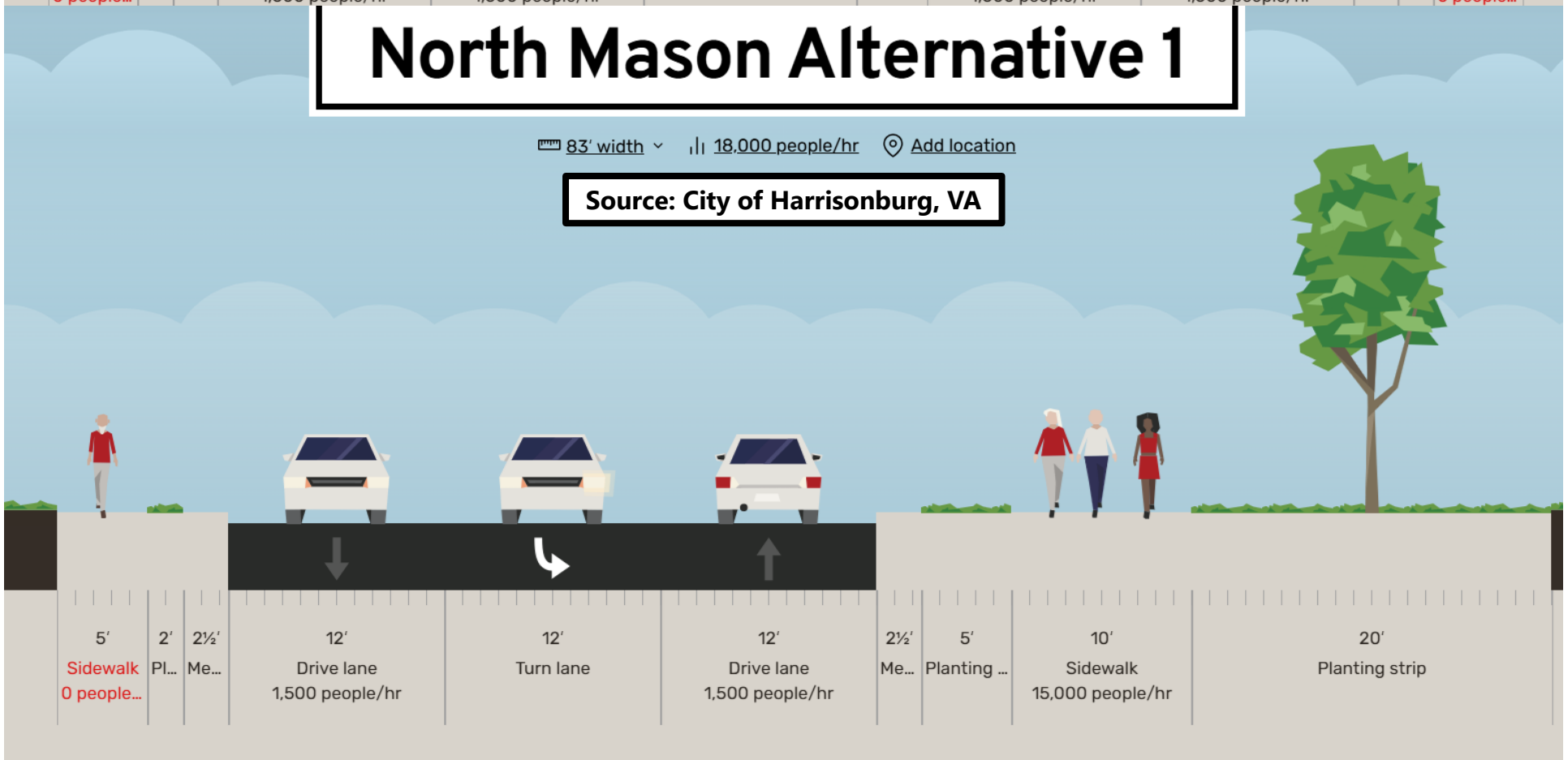
Traffic Forecasting

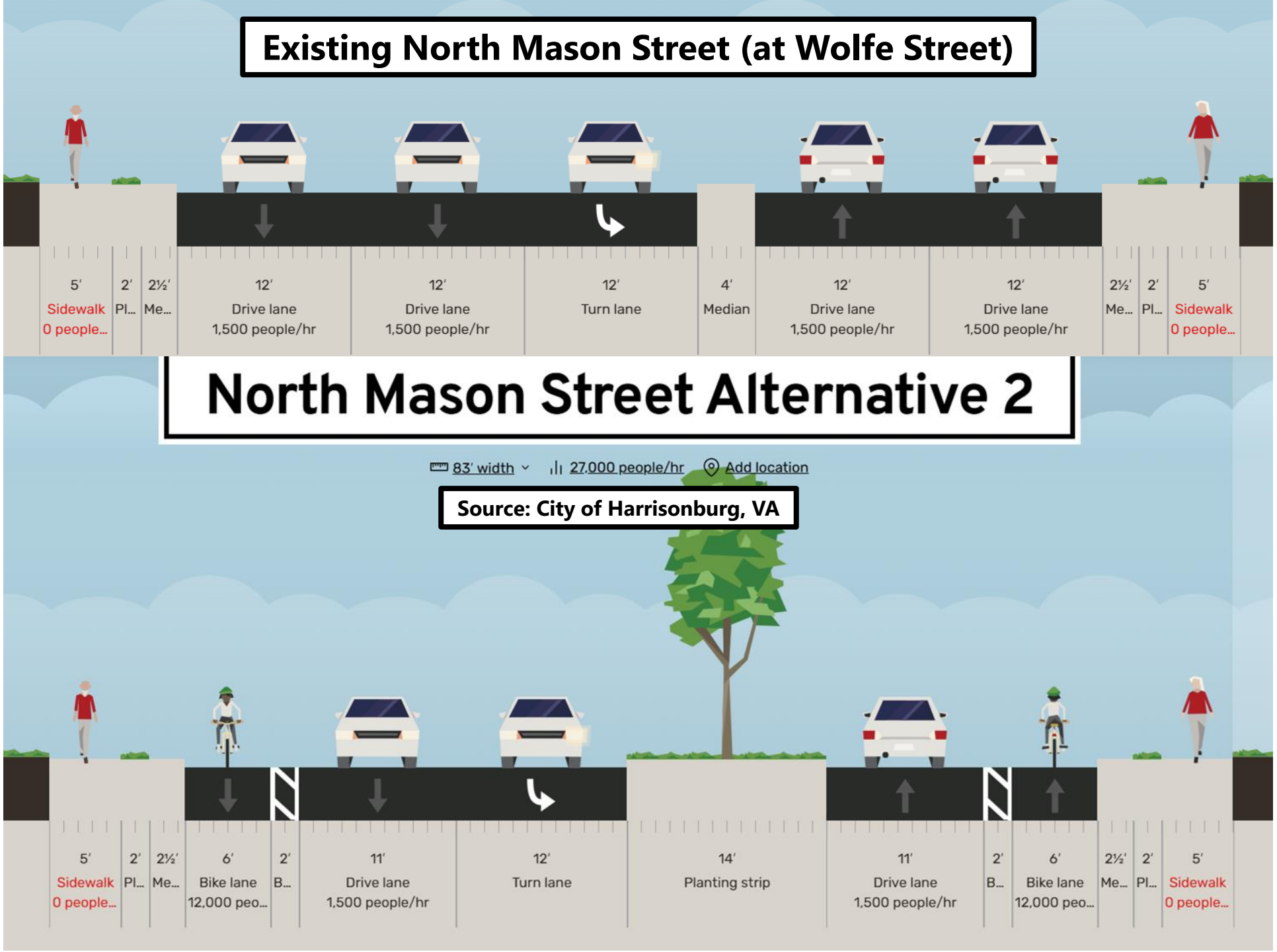
- Traffic patterns will change due to a roadway configuration project
- North Mason Demonstration Project (July – August 2025)
  - Vehicle traffic on N Mason Street **decreased by 15%** at Rock Street
  - Vehicle traffic on N Mason Street **decreased by 25%** at E Market Street
  - Truck traffic on N Mason Street decreased at a higher rate throughout the corridor
- Should we assume that the permanent N Mason Street project will have a similar reduction on traffic volumes?

Preliminary Typical Section Alternatives

- Two draft typical section alternatives for North Mason Street developed by the City for evaluation and refinement within this study
- Draft Alternative 1
  - Shift traffic to one side of the street (very likely the west side)
  - Construct shared use path
  - Have additional space for amenities (primarily between Wolfe St and Rock St)
- Draft Alternative 2
  - Widen median and plant additional trees, creating ‘boulevard’
  - Create buffered bike lanes in each direction


Existing North Mason Street (at Wolfe Street)
5′
Sidewalk
0 people...
2′
Pl...
2½′
Me...
12′
Drive lane
1,500 people/hr
12′
Drive lane
1,500 people/hr
12′
Turn lane
4′
Median
12′
Drive lane
1,500 people/hr
12′
Drive lane
1,500 people/hr
2½′
Me...
2′
Pl...
5′
Sidewalk
0 people...


North Mason Alternative 1
83′ width
18,000 people/hr
Add location
Source: City of Harrisonburg, VA
5′
Sidewalk
0 people...
2′
Pl...
2½′
Me...
12′
Drive lane
1,500 people/hr
12′
Turn lane
12′
Drive lane
1,500 people/hr
2½′
Me...
5′
Planting ...
10′
Sidewalk
15,000 people/hr
20′
Planting strip


Existing North Mason Street (at Wolfe Street)
5′ Sidewalk 0 people…
2′ Pl…
2½′ Me…
12′ Drive lane 1,500 people/hr
12′ Drive lane 1,500 people/hr
12′ Turn lane
4′ Median
12′ Drive lane 1,500 people/hr
12′ Drive lane 1,500 people/hr
2½′ Me…
2′ Pl…
5′ Sidewalk 0 people…
North Mason Street Alternative 2
83′ width
27,000 people/hr
Add location
Source: City of Harrisonburg, VA
5′ Sidewalk 0 people…
2′ Pl…
2½′ Me…
6′ Bike lane 12,000 peo…
2′ B…
11′ Drive lane 1,500 people/hr
12′ Turn lane
14′ Planting strip
11′ Drive lane 1,500 people/hr
2′ B…
6′ Bike lane 12,000 peo…
2½′ Me…
2′ Pl…
5′ Sidewalk 0 people…

Open Discussion

Thank you!

Zach Beard | zach@cspdc.org | 540.560.0968

Jakob zumFelde | Jakob.zumFelde@harrisonburgva.gov | 540.434.5928 x2205

Chuck Conran | cconran@vhb.com | 804.441.7438