Goals:

To update and revise our understanding of regional bicycle and pedestrian transportation safety needs.

Develop a list of candidate project sites for the 2019 Transportation Alternatives Program (TAP) and Highway Safety Improvement Program (HSIP) grant application cycles.
The Needs Assessment:

Is the analytical work element of the HRMPO bicycle and pedestrian Project Pipeline.

Uses a series of quantitative and qualitative data inputs.

Has its own database, map layers using the latest 2013-2018 crash data.

Contains a publicly available ArcGIS Online Web App for HRMPO Bicycle and Pedestrian Crash Analysis Webmap

*Some crash records do not have coordinates and aren’t included in the map or analysis.
ArcGIS Online Web App
for HRMPO Bicycle and Pedestrian Crashes (weblink)
Background

- Collaboration with VDOT Highway Safety Improvement Program (HSIP) Manager on the PSAP spurred the idea for the HRMPO Pipeline.

- Take a deeper look at bicycle and pedestrian crashes, and how projects are being programmed to address them.
HRMPO Pedestrian Crash Density Analysis

- 100 Crashes
- Needs Areas in yellow
HRMPO Bicycle Crash Density Analysis

- 40 crashes
- Needs Areas in yellow
METHODOLOGY

After Crash Density Analysis, perform Trend Search:

• SEVERITY- Multiple visible injury (B) crashes or higher.
• PROXIMITY- Crashes are reasonably clustered. Within 1/3 mile.
• FREQUENCY- Crashes occur in consecutive years.
• POTENTIAL FOR SAFETY IMPROVEMENT (PSI)- A VDOT measure, used to indicate an existing safety issue at the location.
• QUALITATIVE COMPONENT- Locally identified problems, or crash descriptions indicate drivers failing to yield, visibility, lighting, sight distance issues, traffic light issues, etc.
Port Republic Road
S Main St to Neff Ave

SUMMARY:

• 10 Ped Crashes, 7 Bike Crashes= 17 TOTAL

• Concentration between Bluestone Dr and Forest Hill Rd

• Harrisonburg Bike-Ped Plan Project PS-8 and PS-9 (top 5 score). HRMPO Bike-Ped Plan Project H-16B

• City drafting an HSIP project for 5-foot sidewalk, 2 foot grass buffer on the SB side of Port from S Main St to Hillside Ave. Project also includes pedestrian improvements to the S Main St Intersection

Severity ✔
Proximity ✔
Frequency ✔
PSI ✔
Qualitative ✔
Rock Street

**SUMMARY:**
Rock Street between Mason and N. Liberty Street. 5 pedestrian crashes and one bicycle crash between 2017-2018 despite improvements made by the city. Two crashes were alcohol related, including a fatality.

A lack of lighting has been cited as an issue at the Rock St and Mason St intersection.
SUMMARY:

(1) Bicycle crash and (1) Skateboard crash near the crosswalk of Hanson Hall. Skateboarder was in bike lane headed Southbound, sideswiped and/or nearly doored by a Southbound Bus making a stop.

(2) Pedestrian crashes near the Student Success Center, The C crash involved a vehicle exiting a parking lot.

(1) Pedestrian Crash and (1) Skateboard Crash at Duke Drive Crosswalk, near Ikenberry Service Dr.

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North Valley Pike at Northwood Lane

SUMMARY

- Pedestrian Walking southbound, hit by southbound vehicle. Hit and Run.

- HRMPO Bike-Ped Plan Project ID# R-6, Wide Shoulders

- County SMART SCALE Project #3962 N Valley Pike Sidewalk, Recommended for Funding to the south of this location, construction in 2027
Dinkel Ave at Bridgewater College

Indicators

- HRMPO Bike-Ped Plan Project ID# R-48-A, Bike Lane

- Parking lots on one side of an arterial, attractions on the other.

- See JMU Carrier Drive Master Plan Project for a potential solution idea.

- Access Management needs to be studied at this location.

Severity ✔

Proximity ✔

Frequency ✔

PSI ✔

Qualitative ✔
VA 42 South High Street near South Avenue

• 2 severe pedestrian injury mid-block crossings.

• Crash reports suggest pedestrians are struck while running across the street, or as they walk on the sidewalk across a driveway/entrance.

• Harrisonburg Bike-Ped Plan project PS-11

VA 42 road segment info:
• 0.25 miles in length
• 17,000 vehicles per day
• 35 MPH
SUMMARY:
University Blvd Severe Pedestrian Crashes as they cross University Boulevard.

- Near HDPT Transit at Gabe’s/Hobby Lobby stop across from Valley Mall
- City Bike-Ped Plan Project PS-16
- SMART SCALE Project APP ID #3588 Recommended for funding. University Blvd Road Diet (see next slide)

Severity ✔
Proximity ✔
Frequency
PSI
Qualitative ✔
University Blvd Transit Stop

- SMART SCALE Project APP ID #3588, funded, University Blvd Road Diet
- Construction in 2027
- Part of City Bike-Ped Plan Project PS-16
- Recommend an additional unsignalized crosswalk at the Gabe's/Hobby Lobby transit stop.
North Main St from North Mason to Monroe St

Indicators

- Identified for a Bike Lane, HRMPO Bike-Ped Plan Project ID# H-5
- Harrisonburg Bike-Ped Plan Project PS-41, improved pedestrian segment
- Northbound Bicyclist Hit on Permissive Left Turn Green Ball
Martin Luther King Jr. Way and Reservoir St

- Crash reports indicate the vehicles a turning left from reservoir on green ball and hitting peds in the crosswalk.

- Consecutive years

- Identified for a Shared Use Path in HRMPO Bike-Ped Plan Project ID# H-25

- NB dual lane permissive/protected with FYA added on Reservoir St in 2018.
West Grace Street from South High Street to South Main Street

- 5 bicycle crashes between VA 42 South High Street and US 11 South Main Street.
- Highest concentration of Bicycle Crashes.
- All crashes were motorized vehicles failing to yield right of way.
- 4 out 5 occurred when bicyclists were traveling east on the segment.
- New Bike Lanes and Apartments installed in 2016, no new crashes since

Road SEGMENT INFO:
- 3000 ADT, 0.3 miles
- 25 MPH

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Progress Since 2010, Bicycle/Shared Use Path Infrastructure Development

Note: (Infrastructure is sometimes referred to as "Facilities")
Progress Since 2010: Pedestrian Infrastructure Development
CONSIDERATIONS

• Findings need validation and input of users of the non-motorized system. Distribute survey to local bicycle-pedestrian groups and committees in November 2019.

• Findings should not be used to infer non-motorized travel behavior.
QUESTIONS?

THANK YOU!

Email: jonathan@cspdc.org