

# Connecting Campus and City The JMU Bicycle-Pedestrian Master Plan



Timothy Tresohlav, Transportation Planner



## Context



- James Madison University
  - 19,500 students + 3,000 employees
  - 51,000 citizens in City of Harrisonburg
  - 78,000 citizens in Rockingham County

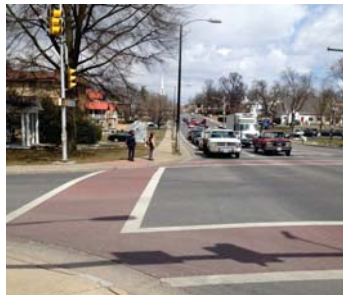
## Cycling on campus

- Fun
- Popular
- Thrilling!



## Connections to City

- Sidewalks
- Shared Use Paths
- Bike Lanes



## Outreach Process

1. Advisory Committee
2. Walking tours
3. Data collection
4. Open House meetings



## 1. Advisory Committee

- BPAC Members
  - JMU Students
  - JMU Faculty/Staff
    - Facilities Management
    - Transportation Demand Management
    - University Recreation
    - Campus Accessibility
    - Campus Police
  - City of Harrisonburg/MPO
  - Private Business Owners
  - Shenandoah Valley Bicycle Coalition



## 2. Walking Tours

- Observe
- Talk with students



## 3. Data Collection

- 196 total bike-ped trips
- 193 total miles recorded



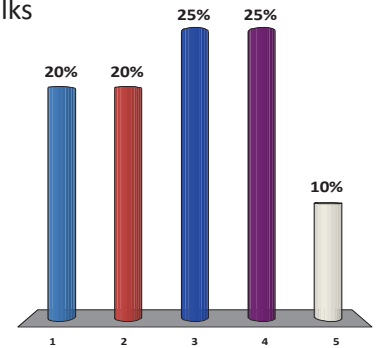
## 4. Open House Meetings

- Interactive discussions
- Feedback



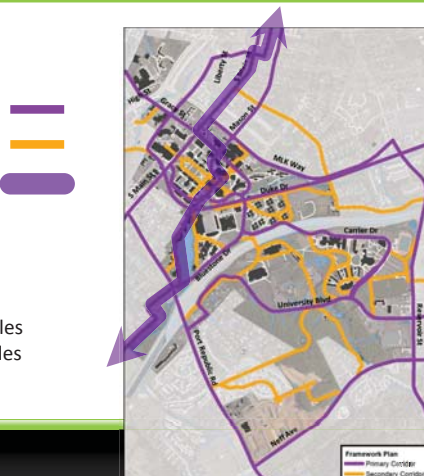
## 4. Open House Meetings

1. Lack of paths and sidewalks
2. Conflict with cars
3. Conflict between cyclists and pedestrians
4. Missing connections
5. Lack of bicycle parking



## Plan Framework

- Primary Corridors
- Secondary Corridors
- Campus-City connection



Primary Corridors 21.4 miles  
Secondary Corridors 9.8 miles

## Project Prioritization Table

- 28 JMU projects
- 27 City projects

Priority ranking - scoring

- Safety
- **Connectivity**
- Constructability
- Survey
- Sustainability
- **Campus priority**

| Length (mi) | Prioritization Factors |              |                  |        |                |                 | Total Points | Priority Rank |
|-------------|------------------------|--------------|------------------|--------|----------------|-----------------|--------------|---------------|
|             | Safety                 | Connectivity | Constructability | Survey | Sustainability | Campus Priority |              |               |
| 0.17        | 5                      | 3            | 2                | 2      | 2              | 5               | 19           | 2             |
| 0.07        | 2                      | 5            | 3                | 2      | 2              | 5               | 17           | 3             |
| 0.09        | 1                      | 5            | 3                | 1      | 3              | 5               | 17           | 4             |
| 0.32        | 1                      | 5            | 3                | 2      | 2              | 3               | 16           | 5             |
| 0.22        | 1                      | 3            | 2                | 2      | 3              | 5               | 16           | 6             |
| 0.12        | 2                      | 2            | 3                | 2      | 3              | 3               | 15           | 8             |
| 0.20        | 2                      | 2            | 3                | 2      | 3              | 5               | 15           | 7             |
| 0.04        | 3                      | 1            | 3                | 1      | 1              | 5               | 15           | 9             |
| 0.03        | 3                      | 1            | 4                | 1      | 2              | 5               | 14           | 10            |
| 0.27        | 2                      | 2            | 2                | 2      | 3              | 3               | 14           | 11            |
| 0.50        | 2                      | 2            | 2                | 1      | 3              | 5               | 13           | 12            |
| 0.06        | 1                      | 4            | 3                | 1      | 2              | 2               | 13           | 14            |
| 0.40        | 3                      | 3            | 2                | 1      | 2              | 2               | 13           | 15            |
| 0.08        | 3                      | 2            | 2                | 1      | 1              | 3               | 11           | 16            |
| 0.16        | 3                      | 2            | 2                | 1      | 3              | 1               | 11           | 17            |
| 0.16        | 2                      | 2            | 1                | 2      | 2              | 2               | 11           | 18            |
| 0.11        | 2                      | 3            | 1                | 1      | 2              | 2               | 11           | 19            |
| 0.09        | 2                      | 1            | 1                | 1      | 3              | 3               | 10           | 20            |
| 0.04        | 1                      | 1            | 1                | 2      | 2              | 3               | 9            | 21            |
| 0.06        | 1                      | 1            | 1                | 1      | 1              | 4               | 9            | 22            |
| 0.15        | 1                      | 1            | 2                | 1      | 2              | 2               | 9            | 23            |
| 0.15        | 1                      | 1            | 1                | 1      | 3              | 1               | 8            | 24            |
| 0.14        | 1                      | 1            | 1                | 1      | 2              | 1               | 7            | 25            |
| 0.14        | 1                      | 1            | 1                | 1      | 1              | 2               | 7            | 26            |
| 0.23        | 1                      | 1            | 2                | 1      | 1              | 1               | 6            | 27            |
| 0.15        | 1                      | 1            | 2                | 1      | 1              | 1               | 5            | 28            |

# Project Recommendations

## Executive Summary

- Bicycle Lanes 4.2 miles
- Shared Lane Markings 1.8 miles
- Shared Use Paths 5.1 miles
- Sidewalks 3.0 miles

**14.1 miles**

| Project # | Project Description                                     | Location  | Length (Miles)      | Priority | Notes                                      |
|-----------|---|---|---------------------|----------|--|
| 1         | Install a water treatment plant at the end of the road. | Between Center of the road and the end of the road. | 0.27 miles (0.43 K) | High     | Part of the water treatment plant project. |
| 2         | Install a water treatment plant at the end of the road. | Between Center of the road and the end of the road. | 0.27 miles (0.43 K) | High     | Part of the water treatment plant project. |
| 3         | Install a water treatment plant at the end of the road. | Between Center of the road and the end of the road. | 0.27 miles (0.43 K) | High     | Part of the water treatment plant project. |
| 4         | Install a water treatment plant at the end of the road. | Between Center of the road and the end of the road. | 0.27 miles (0.43 K) | High     | Part of the water treatment plant project. |
| 5         | Install a water treatment plant at the end of the road. | Between Center of the road and the end of the road. | 0.27 miles (0.43 K) | High     | Part of the water treatment plant project. |
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| 7         | Install a water treatment plant at the end of the road. | Between Center of the road and the end of the road. | 0.27 miles (0.43 K) | High     | Part of the water treatment plant project. |
| 8         | Install a water treatment plant at the end of the road. | Between Center of the road and the end of the road. | 0.27 miles (0.43 K) | High     | Part of the water treatment plant project. |
| 9         | Install a water treatment plant at the end of the road. | Between Center of the road and the end of the road. | 0.27 miles (0.43 K) | High     | Part of the water treatment plant project. |
| 10        | Install a water treatment plant at the end of the road. | Between Center of the road and the end of the road. | 0.27 miles (0.43 K) | High     | Part of the water treatment plant project. |

# Carrier Drive Corridor

## Project #10

- Crosswalks
- Post and chain
- Speed tables
- Bike lane markings
- Pedestrian signs



# Programmatic Recommendations

- Education
  - Orientation and ongoing outreach
  - Multi-media
  - Campus ambassadors
- Encouragement
  - Incentives
  - Amenities and wayfinding
- Enforcement
  - Targeted activities
  - Active transportation culture
  - Bicycle registration
- Evaluation
  - Assess and adjust
  - Continued surveys
- Designate responsible departments for each of the above



# Transportation Funding



Lee Eshelman, Transportation Demand Manager  
Michael Dalmolin, Sustainability Coordinator

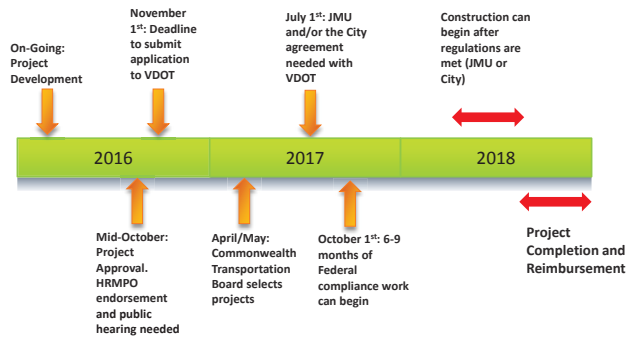
# Discussion Agenda

- State and Federal funding options for transportation projects on campus (e.g., bicycle and pedestrian trails, Cycle Share):
  - State: Virginia Revenue Sharing
  - Federal: Transportation Alternatives Program (TAP)

# Federal TAP Grant Funding

- **What is it?** The Transportation Alternative Program (TAP) is an 80/20 match program administered by VDOT using FHWA (Federal Highway Administration) funds. Match can be met a variety of ways with capital, property, staff time, etc.
- **What does it fund?** Construction of on-road and off-road trails for pedestrians/bicyclists; construction of infrastructure related project and systems; conversion and use of abandoned railroad corridors for pedestrians and bicyclists. (TAP also funds historic preservation and environmental mitigation projects)
- **How can you apply?** Unlike Revenue Sharing funds, JMU can submit an application directly to VDOT with an endorsement from the HRMPO and after holding a public meeting.
- **How competitive is it?** TAP is a more competitive program than Virginia's Revenue Sharing; VDOT funded 45 projects out of the 75 applications it received last year.
- **What kind of requirements?** Compared to Revenue Sharing funds, 9-12 months of compliance work is typically needed before a project can move forward after being awarded: environmental, wages, SWAM, etc. Starting the design before an application can expedite a project's completion.
- **Quick Note:** Projects must be maintained over their useful lives; they can be altered, but the basic idea must be maintained.

## Federal TAP Timeline



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## Federal TAP Grant Case Study

- A UVA student-led bike share campaign began in 2009.
- UVA received two Federal TAP grants for bike share: in 2010 for a \$35,000 feasibility study and in 2012 for a \$350,000 implementation grant.
- Project includes a fleet of 120 bikes over 11 stations.
- VCU and GMU are both considering seeking TAP funds for cycle share on their campuses.



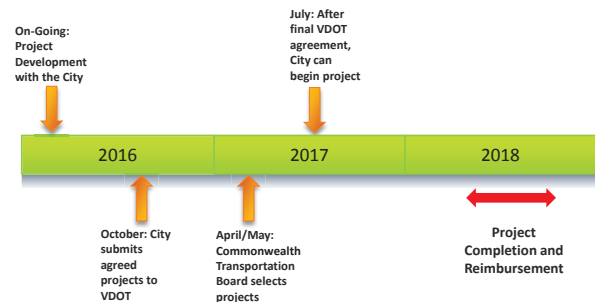
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## Virginia Revenue Sharing Funding

- What is it?** The Revenue Sharing program is a broad 50/50 match program by VDOT to fund the construction, reconstruction, improvement, and maintenance of eligible street additions for towns, cities, and counties.
- What does it fund?** New roads, new pavement, sidewalks, traffic signals, trails, turn lanes, curb and gutter, intersection improvements, etc.
- How can you apply?** JMU is ineligible to seek these grant funds and would need to partner with the City of Harrisonburg. The City would be reimbursed for eligible expenses in accordance to VDOT's guidelines; JMU and the City work out a separate agreement on our own on scope, match, management, etc.
- How competitive is it?** Funds are readily available – all applications to VDOT for construction funds were approved during the last two years.
- What kind of requirements?** Revenue Sharing program does not have as many requirements as Federal funding and projects can be started nine to twelve months sooner.

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## Virginia Revenue Sharing Timeline



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## Virginia Tech: College Avenue

- \$4.1 million project
- Half of project property contributed by VT and half by the Town of Blacksburg
- Project includes: 28 foot sidewalk, tree planters, storm water treatment, and outdoor seating



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## Virginia Tech: Turner Avenue

- \$1.7 million project
- VT requested the Town to implement project; VT provided 50% match, the remaining 50% came from VDOT.
- Project includes: light poles, Hokie stone retaining walls, and speed tables.



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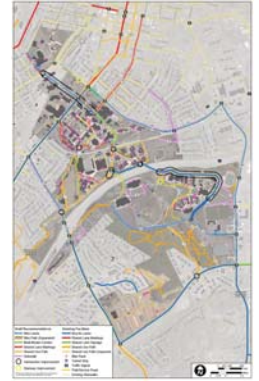
## Master Plan Implementation



Abe Kaufman, Energy Conservation & Sustainability Manager

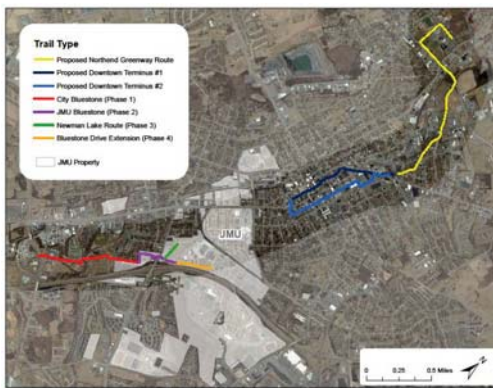
## University Projects

Since the master plan was adopted in spring 2014 the University has implemented over \$2.6 million in bicycle and pedestrian infrastructure improvement projects



## City Projects

- Planned 2.5 mile shared-use path to the north of campus (Northend Greenway)
- Recently completed 1 mile shared-use path to the south of campus (Bluestone Trail)



## Connecting our Community



“As it sits right now, JMU is basically a gap in between Bluestone Trail and the Farmers Market,” Carter said. “JMU has an exciting opportunity to connect the north and south greenways that will allow students to get off campus and residents to get downtown safely.”

Suzy Carter, former Program Director for Northend Greenway

## Connecting our Community



## Bluestone Trail

- 1 mile long shared-use path
- \$1.2 million project with funding from City, JMU, VDOT
- Completed in fall 2014
- First joint bike/ped project between City & JMU



## Newman Lake Trail

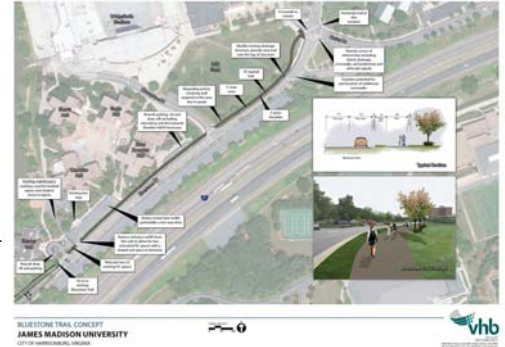
- \$800,000 project
- Constructed a shared-use path adjacent to Newman Lake
- Project connected the recently completed Bluestone Trail with campus



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## Bluestone Trail Extension

- \$729,000 project
- Partnership formed to extend City's Bluestone Trail onto campus and apply for Revenue Sharing funds.
- Project includes: 10-foot trail, curb and gutter, intersection improvements.



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## Proposed Grace Street Extension

- Proposed \$2.5 million project, seeking \$1,250,000 in grant funds
- Continued partnership between JMU/City
- Project would change traffic pattern through campus and complete Bluestone Trail connection through campus



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