



ROUTE 5 PEDESTRIAN CROSSING RECOMMENDED ALTERNATIVES

**CDA MEETING
FEBRUARY 17, 2009**

- A. Introduction**
- B. Survey Results**
- C. Criteria Evaluation**
- D. Recommendations**



ALTERNATIVES

1.0 Do Nothing

2.0 Improve Crosswalk (lighting, stop light, rumble strips, “bump-out”, etc.)

3.0 Traffic Calming (narrow lanes and shoulders, sidewalks, landscaping, medians)

4.0 Pedestrian Footbridge

5.0 Tunnel

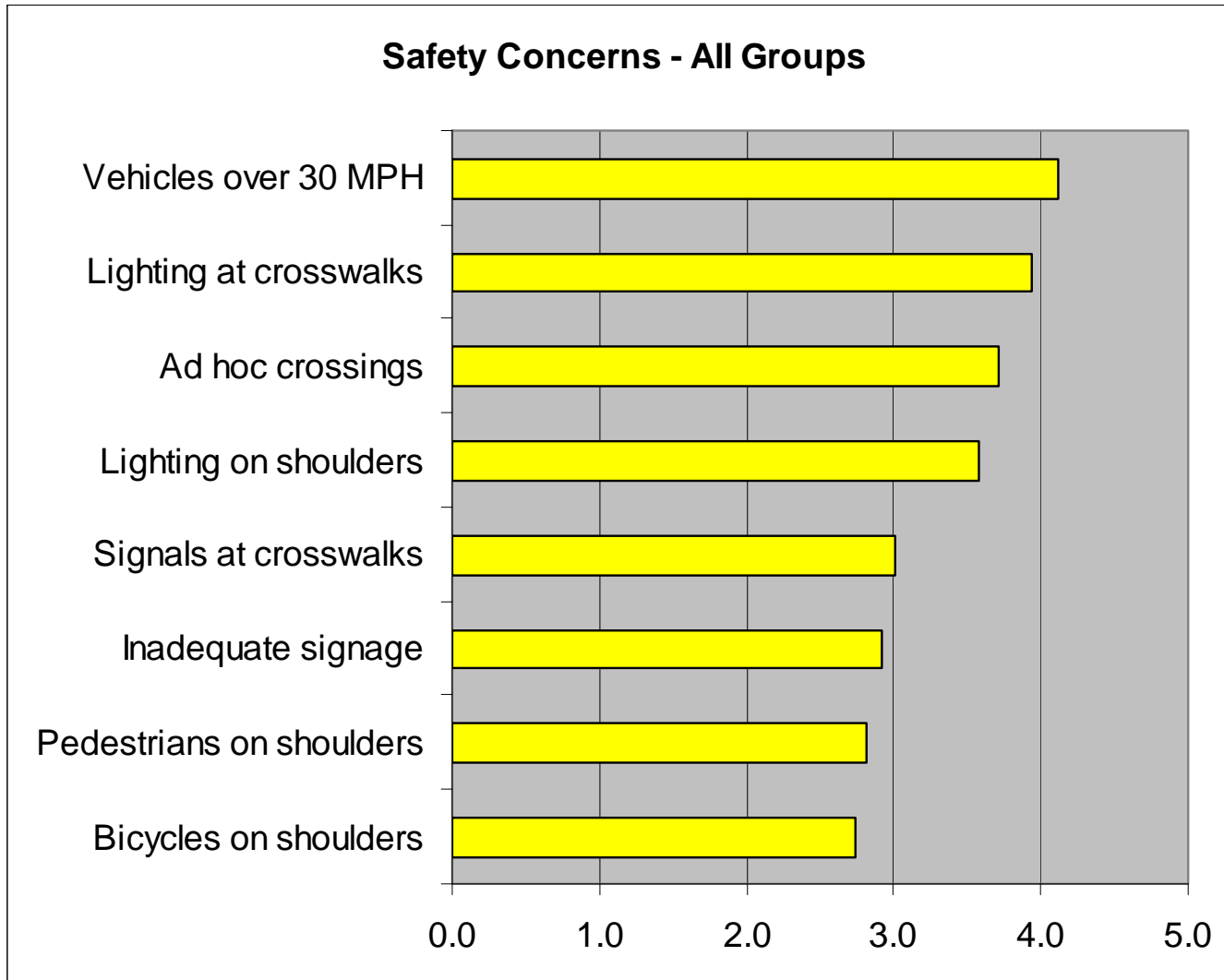


Bump Out



Traffic Calming

SURVEY RESULTS – Safety Concerns – All Groups



Survey Scale:

1=Not important

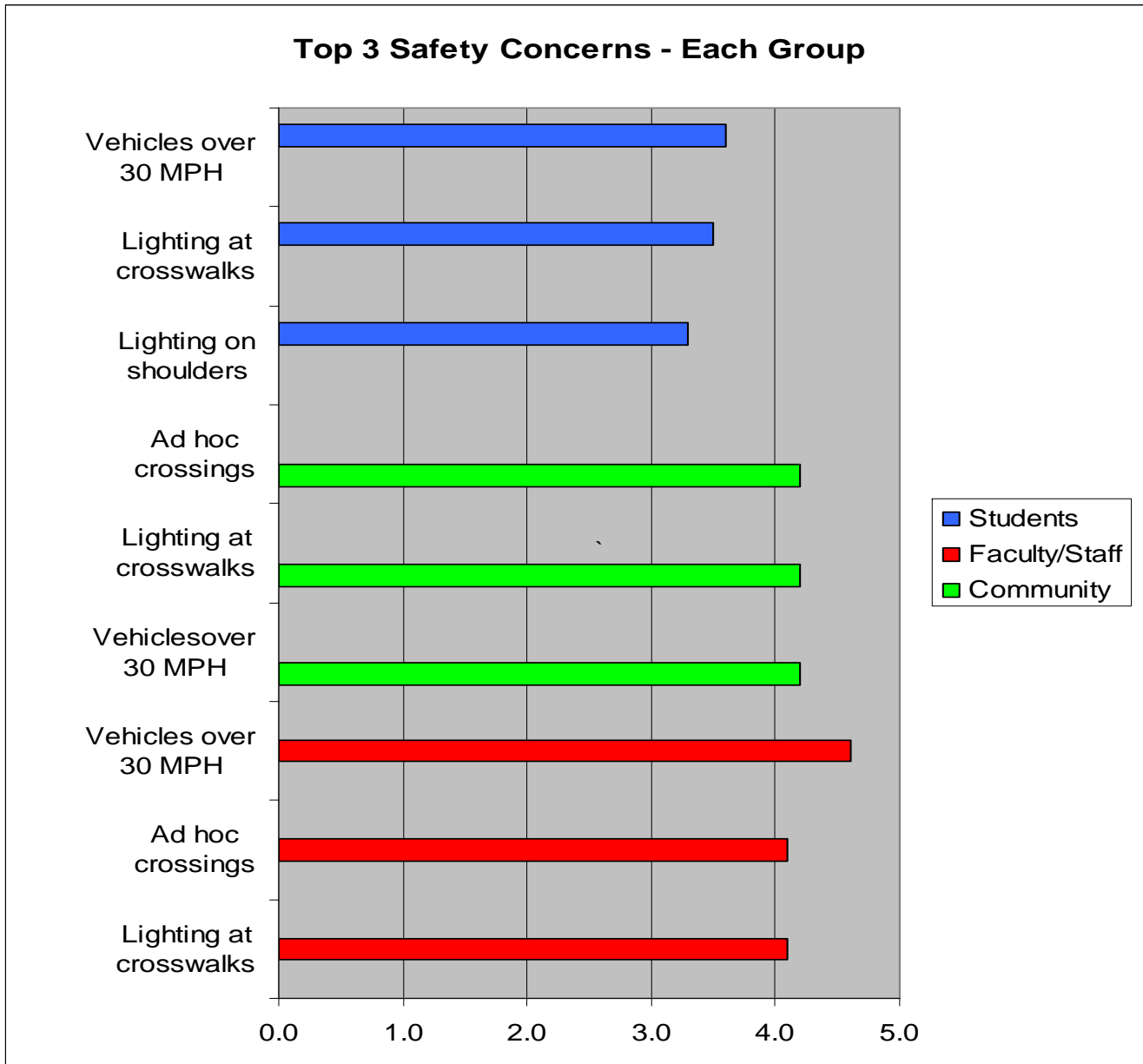
2=Somewhat important

3=Important

4=Very important

5=Extremely important

SURVEY RESULTS – Most Important Safety Concerns



Survey Scale:

1=Not important

2=Somewhat important

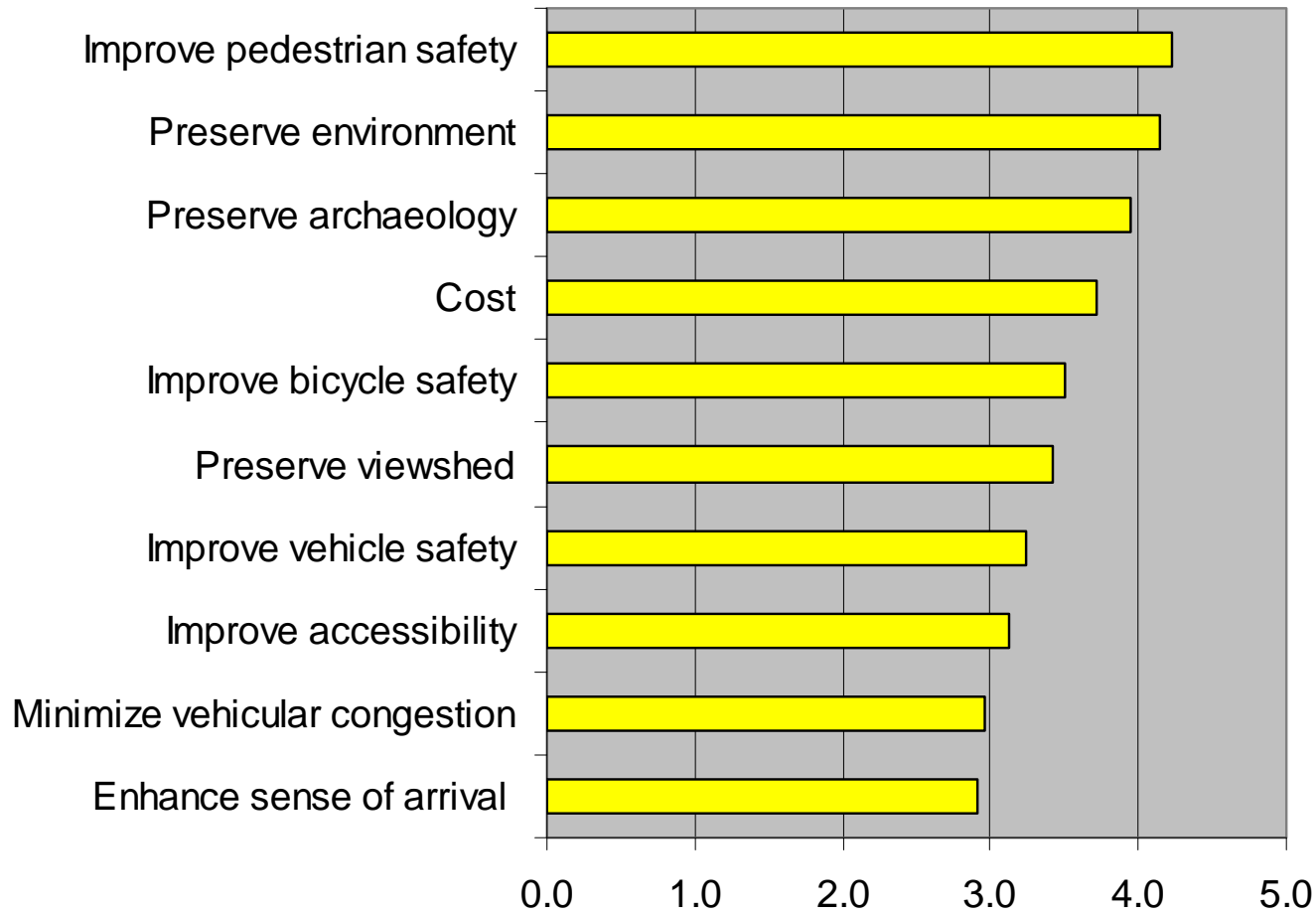
3=Important

4=Very important

5=Extremely important

SURVEY RESULTS – Criteria Results – All Groups

Criteria - All Groups



Survey Scale:

1=Not important

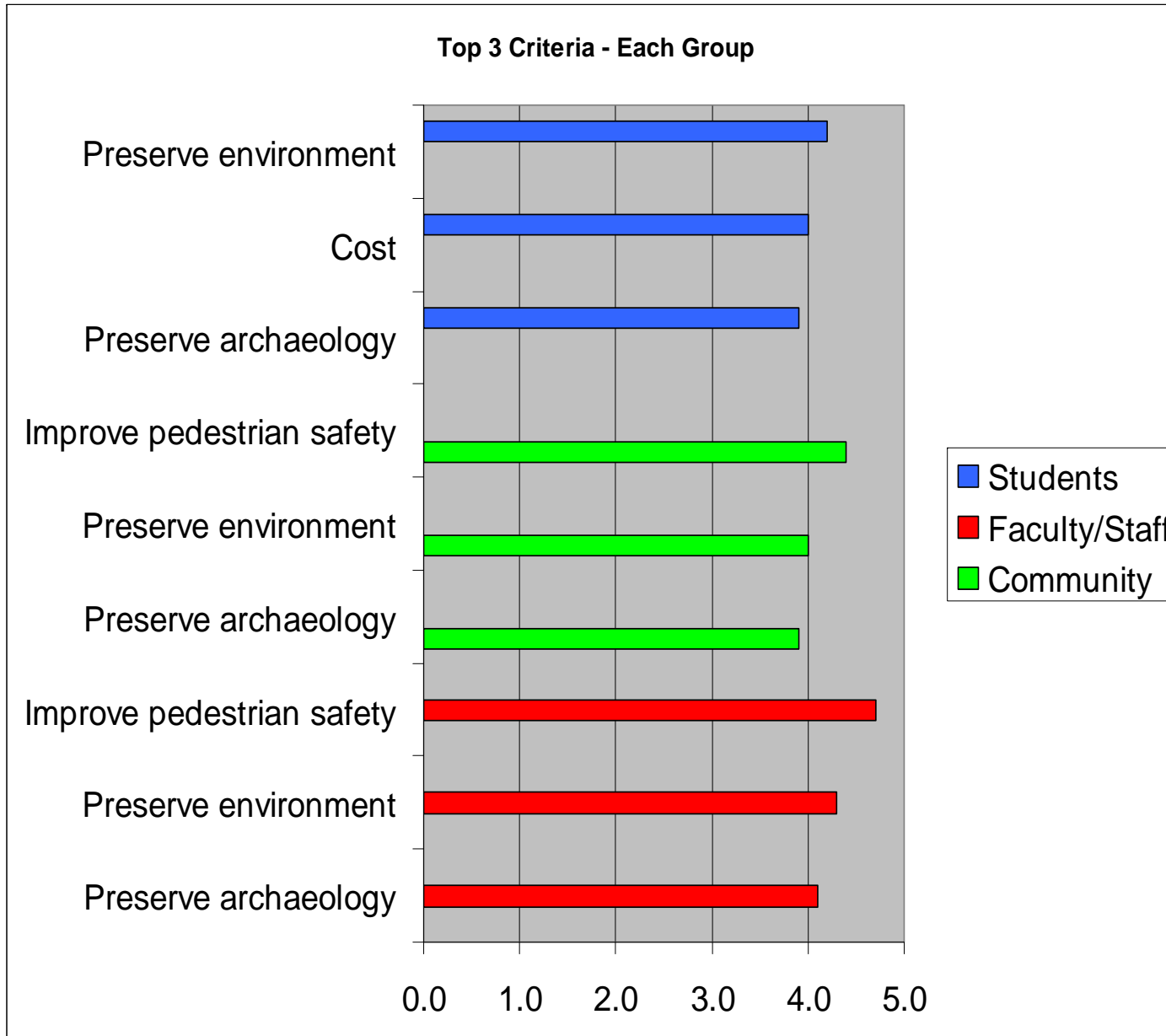
2=Somewhat important

3=Important

4=Very important

5=Extremely important

SURVEY RESULTS – Most Important Criteria



Survey Scale:

1=Not important

2=Somewhat important

3=Important

4=Very important

5=Extremely important



Survey Comments

- Improve lighting (66 comments)
- Support for traffic calming (47 comments)
- Support for improving the existing crosswalk through a variety of means such as a traffic light, rumble strips, stop sign (36 comments)
- Suggestions for better enforcement of the speed limit (23 comments)
- Mixed support for the footbridge (23 comments for vs. 93 comments against)
- Educate students about safe behavior crossing Route 5 (15 comments)
- Appreciate the process – presentations, communication, etc. (8 comments)



Alternatives Analysis

Alternative 1.0 - Do Nothing

- Does not improve pedestrian safety
- Does not affect resources
- No cost
- Does not improve bike or vehicle safety
- Preserves existing viewshed
- Does not improve ADA accessibility
- Does not affect vehicle congestion



Alternatives Analysis

Alternative 2.0 - Improvements at Crosswalks

- Improves visibility
- Slows vehicles down in areas near crosswalks
- Does not affect Archaeology
- Does not impact the environment
- Cost – minimal to \$200,000 per crosswalk
- Improves bike & vehicle safety at night
- Preserves existing viewshed
- Improves ADA accessibility at crosswalks with color and texture
- Slight impact on vehicle congestion during peak crossing



Alternatives Analysis

Alternative 3.0 – Traffic Calming Measures

- Highly effective in reducing accidents, vehicles tend to observe speed limit, improved lighting
- No impact on Archaeology, can improve storm water runoff
- Cost \$1M to \$2M depending on scope
- Bike safety improved with bike lanes, vehicle safety improved by compliance with speed limits
- No impact on viewshed, enhanced sense of arrival
- Improves ADA accessibility at crosswalks with color and texture
- Vehicles encouraged to travel at speed limit



Alternatives Analysis

Alternative 4.0 – Pedestrian Footbridge

- Safe crossing at one point only, vehicle speed encouraged to increase
- Could impact Archaeology, could improve storm water runoff
- Cost \$1.5M
- Bike safety improved only at bridge crossing
- Viewshed is impacted. May enhance sense of arrival
- ADA accessibility improved at bridge
- Would eliminate congestion during peak crossings at south crosswalk



Alternatives Analysis

Alternative 5.0 – Pedestrian Tunnel

- Safe crossing at one point only, vehicle speed encouraged to increase, not a convenient crossing
- Would impact Archaeology and environment during construction
- Cost \$2.5M +
- Bikes likely to not use tunnel due to switchbacks
- Viewshed not impacted, Landscape impacted by ramps
- ADA accessibility maintained but with excessive travel distance
- Would eliminate congestion during peak crossings at south crosswalk



Other Suggested Alternatives

- Stop Light – SHA says we don't meet criteria
- Stop Sign – Would increase likelihood for rear end collisions and would create significant traffic congestion
- Rumble strips along road shoulders – will be considered with traffic calming measures
- College enforcement – Public Safety officers not authorized to issue traffic citations
- Radar cameras – Only Montgomery County has authorized their use by law
- Roadside Radar – Effective only in the short term
- Speed Bumps – Not allowed by SHA
- In-pavement crossing lights – Not supported by SHA due to maintenance issues
- Pavement Markings and Bollards – SHA will not support unconventional road signage or traffic markings

Alternative Analysis Summary

Criteria: <i>Listed from Highest to Lowest Priority</i>	Alternative 1.0	Alternative 2.0	Alternative 3.0	Alternative 4.0	Alternative 5.0
A. Improve Pedestrian Safety					
1 Reduce Vehicle Speed					
2 Lighting @ Crosswalks					
3 Crossing Outside of Crosswalks					
4 Lighting along Shoulders					
B. Preserve Environment					
C. Preserve Archaeology					
D. Costs					
E. Improve Bicycle Safety					
F. Viewshed: Preserve Existing					
G. Improve Vehicle Safety					
H. Improve Accessibility					
I. Minimize Vehicle Congestion					
J. Viewshed: Enhance Aesthetics					



Does not meet objectives



Partially meets objectives



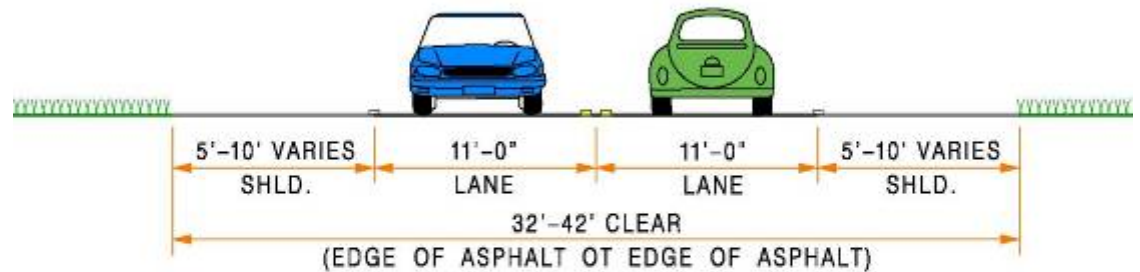
Fully meets objectives



Recommendations

- Lighting – immediate improvements at crosswalks
- Traffic Calming Measures throughout the Rt. 5 corridor
- New footbridge at Fisher's Creek

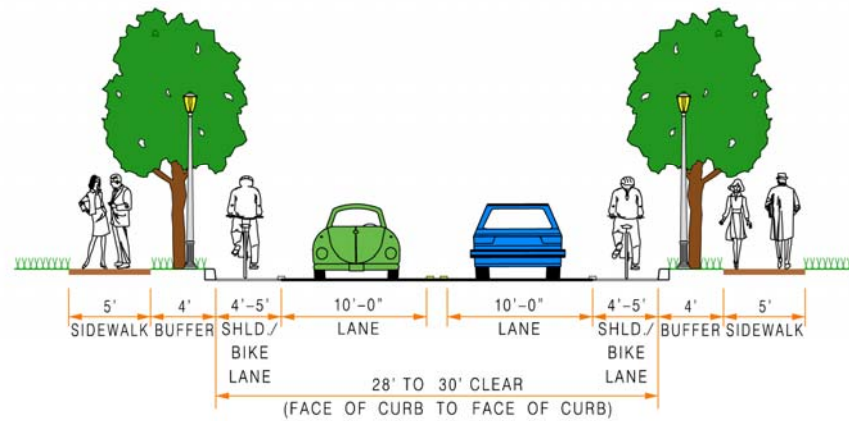
Existing Road Section



EXISTING TYPICAL SECTION

N.T.S.

Traffic Calming – Closed Section Option

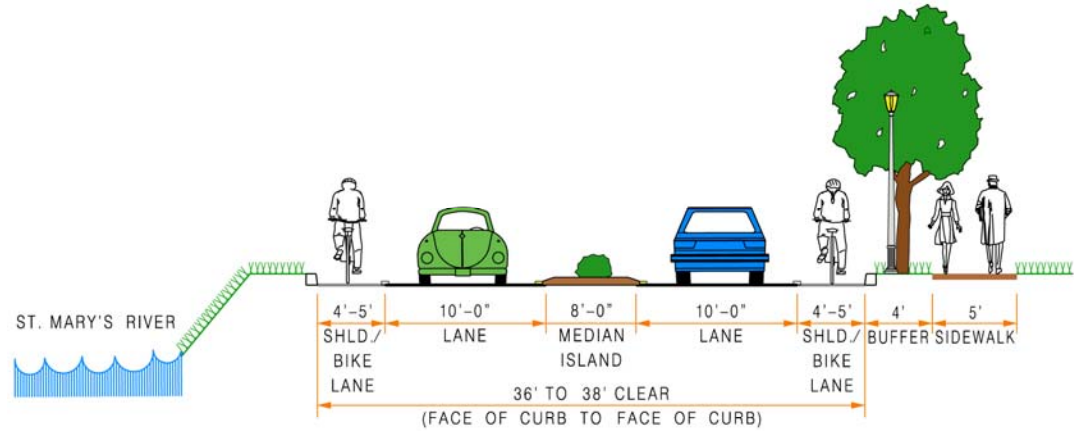


PROPOSED TYPICAL SECTION
N.T.S.

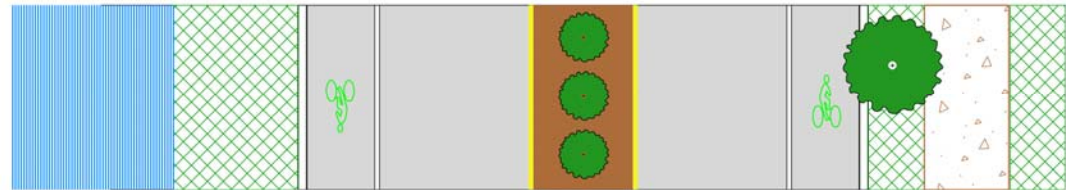


PROPOSED PLAN VIEW
N.T.S.

Traffic Calming – Median Option

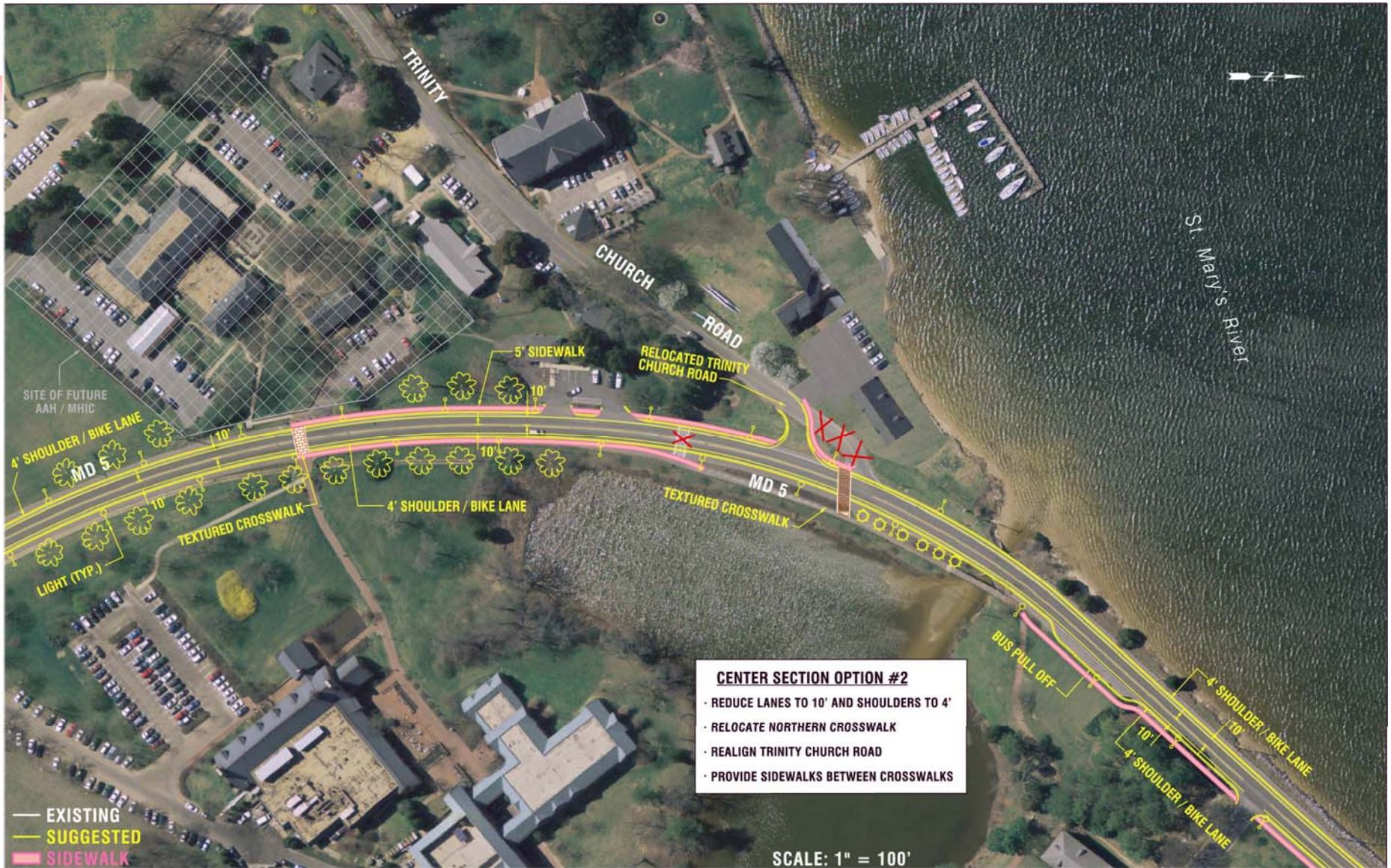


PROPOSED TYPICAL SECTION
N.T.S.



PROPOSED PLAN VIEW
N.T.S.

Traffic Calming - conceptual layout options



Traffic Calming - conceptual layout options



Traffic Calming - conceptual layout options





Process

- Approval by the College's Board of Trustees and Historic St. Mary's City Commission
- Develop conceptual plan with State Highway Administration
- Develop design with input from College, City, & Community