

**Morgantown Municipal Bicycle Board  
Recommendations to the Traffic Commission**

**7-February-2007**

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## Summary

This document provides the Bike Board's recommendations to the Traffic Commission in the areas of infrastructure and education as they relate to bicycling in Morgantown.

The Bike Board maintains a focus on developing a comprehensive Morgantown bicycling plan. The Bike Board also recognizes that other events such as the recent approval of the Morgantown Statistical Area Transportation Plan are presenting immediate and irrevocable impacts on the current and future state of bicycling in our community. To address both these immediate exigencies while keeping its focus on developing a comprehensive plan, the Bike Board has adopted an approach that iterates between planning and doing.

## Vision

On 2-Nov-2006, the Bike Board defined the elements of its vision and reduced those elements to the following vision statement on 21-Jan-2007.

*All Morgantown residents can enjoy bicycling safely and fearlessly anywhere, anytime, for any reason. Morgantown residents choose to ride bicycles for transportation as well as recreation. Our state and our nation recognize Morgantown for the benefits of bicycling to our health, our environment, our economy and our quality of life.*

## Goals

On 7-Dec-2006, the Bike Board identified 91 goals for improving cycling in Morgantown. The Board organized those goals into 8 groups and prioritized the groups as follows.

1. Infrastructure
2. Education
3. Commuting
4. Publicity
4. Bike Friendly Community Award
4. Law
5. Bike Parking
5. Maps

On 4-Jan-2007, the Bike Board formed 3 committees to flesh out the goals within the top three priority groups into specific, clear and actionable recommendations for the Traffic Commission. On 1-Feb-2007, the Infrastructure and Education committees reported their recommendations to the Bike Board. The Bike Board approved them. Upon acceptance by the Traffic Commission of these recommendations, the Board will complete the Commuting recommendations and begin to develop recommendations for the Publicity and Bicycle Friendly Community Award goal groups

## **Infrastructure**

Infrastructure includes roadways, trails, bridges, and other physical appurtenances that affect safety and practicality of cycling in Morgantown. Infrastructure design, construction and maintenance can encourage or discourage bicycling or even make bicycling impossible.

The Bike Board recommends that the Traffic Commission implement infrastructure improvements to achieve **Six Broad Goals**, which we outline below. Within each **Broad Goal**, we recommend two or three **Pilot Projects**, some readily attainable this year, while others will require planning and grant writing over several years. We intend that the effectiveness and safety of each **Pilot Project** will be monitored and that successful projects will be replicated across the city. We realize that some of the recommended **Pilot Projects** are outside Morgantown's city limits or within the jurisdictions of WVU, Mon County Schools, other municipalities, or the county. In these cases, we recommend that the city address internal aspects of these projects directly and that the City Council work with the MPO and other entities in other areas.

### **Broad Goal #1: Signage**

**Pilot Project #1:** Install the “Bicycles on Roadways” sign or roadway markings (See Figure 1<sup>1</sup> and Figure 2) recommended by Ron Eck on: Sabraton Route 7, Westover Bridge to Osage; Patteson Drive, Van Voorhis, and Chestnut Ridge to Rt. 705; Rt. 705; Don Knotts Boulevard, Beechurst Avenue, Monongahela Boulevard; the Mileground; and University Avenue

**Pilot Project #2:** Coordinate other appropriate signage with all other projects below

### **Broad Goal #2: Establish bicycle street routes and trails**

**Pilot Project #1:** Establish 2-way/1-way streets: Grant Avenue, Chestnut Street, Jones Avenue, MacLane Avenue. (See Figure 3 and Figure 4). There is a need to provide cyclists with safer routes on less heavily traveled streets.

**Pilot Project #2:** Build more multiple-use trails like those in White Park as connectors: the Campus Connector from Grant Avenue to the WVU Evansdale Campus (with steps and bike-rail); Health Center Connector from North Fire Station to Law School, the Health Center, and Mountaineer Field; Krepps Park to Star City; Falling Run through WVU Farms to West Run to the Mon River Trail (at Beechurst Avenue and near Van Voorhis); and Mon River Trail to Bakers Ridge Road and new University High School. (See Figure 5, Figure 6, Figure 7, and Figure 8.)

### **Broad Goal #3: Design Streets for Bikes Around and Throughout the City**

**Pilot Project #1:** Use traffic calming strategies to decrease motorized traffic speed, encourage bicycling: build “neck-downs” and “Cambridge Islands” on Willowdale Street. (See Figure 9 and Figure 10.)

**Pilot Project #2:** Install tinted-application bike lanes on Richwood Avenue from Sabraton to Willey Street and on One-Way/Two-Ways. (See Figure 11.)

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<sup>1</sup> Figure 1 and Figure 2 were copied from San Francisco's Shared Lane Marking Study: February 2004

**Pilot Project #3:** Redesign University Avenue between Stewart Street and Patteson Drive, widened, with an up-hill “bicycle climbing lane.” Cyclists can travel in traffic downhill. While this will not make the street attractive to all cyclists, it will broaden the spectrum of cyclists using University Avenue while greatly increasing safety and convenience to motorists.

**Broad Goal #4: Eliminate Road Hazards across all Jurisdictions (a “metro” project)**

**Pilot Project #1:** Institute quick-response program for filling pot holes, linear pavement gaps, and bicycle-friendly alignment & leveling of drainage grates. Sample form:

**Greater Morgantown Bicycle & Pedestrian Program**

**Facility Improvement Request Form**

The bicycle and pedestrian facility improvement program is intended to enhance bicycle and pedestrian safety and encourage bicycling and walking through **low-cost**, small improvements suggested by concerned citizens. Examples: pavement maintenance and sweeping, hazard removal, bike rack installation, grating repair, crosswalk improvements, etc.

Location: Street \_\_\_\_\_

Address or Landmark: \_\_\_\_\_

Suggestion: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Requested by: \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_

\_\_\_\_\_

**Pilot Project #2:** Establish program for regular inspection and cleaning of paved shoulders and streets to eliminate glass, cinders, and other debris which cause bicycle accidents and discourages cycling.

**Broad Goal #5: Longer Term Projects Requiring Planning, Grant Writing, etc.**

**Pilot Project #1:** Bicycle/Pedestrian Bridges: from 1<sup>st</sup> Ward to the Caperton Trail, from the CAC to the Coliseum, across Deckers Creek near Stanley’s Spot Dog Park

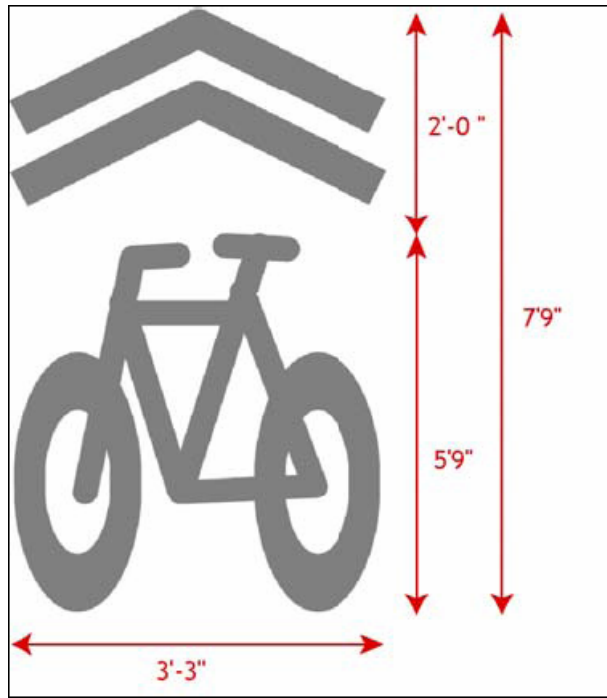
**Pilot Project #2:** Safe Routes to Schools. In planning pedestrian/bicycle improvements, reach out from every school a minimum of 1000 yards or to the nearest housing clusters. Start with Dorsey Avenue Pre-school, Mountainview Elementary School, North Elementary School, Suncrest Elementary and Middle Schools, Morgantown High School, and South Middle School.

**Pilot Project #3:** Install low-level safety lighting along paved railtrails within city.

**Broad Goal #6: Participate in MPO Projects to secure bicycle-friendly design and construction**



**Figure 1: “Bikes on Road” marking**



**Figure 2: “Bikes on Road” design**



**Figure 3: Cars 1-way, Bicycles 2-way**



**Figure 4: Same, Cambridge, UK**



**Figure 5: Roadside Trail, Germany**



**Figure 6: Roadside Trail Underpass, with Steps to Road on all Four Sides**



**Figure 7: End of Grant Avenue, Beginning of Campus Connector**



**Figure 8: Campus Connector Location**



**Figure 9: Neck-down, Speed Hump, Cambridge Islands, And Short-distance Bike Lanes**



**Figure 10: Appropriate Signage for Neck-down and Speed-Hump**



**Figure 11: Use of Tinted, High Friction-coefficient Asphalt for Bicycle Lane**



**Figure 12: Result: More Bicycles, Fewer Cars**

## **Education**

Bicyclist safety as well as traffic flow is compromised by bicyclists and non-bicyclists having insufficient knowledge of laws and proper bicycle and motor vehicle operation principles and techniques. **The Bike Board recommends that the Traffic Commission and the City of Morgantown support the development of an education program that will train cyclists and non-cyclists in laws and skills that engender safe bicycling.**

### **Education Targets**

The proposed education program will target 3 groups:

1. Government
2. Schools
3. General public.

### **Government Target**

The government group includes:

- Bike Board members
- Traffic Commission members
- MPO members
- WV DOT engineer(s)
- Police
- Mayor and City Council members
- Planning Commission members
- BOPARC staff

### **Schools Target**

The schools group includes:

- WVU
  - Clubs including Student Sierra Club and Outdoor Recreation Center
  - Students
  - Faculty
  - Staff
- K-12
  - Clubs including Boy Scouts, Girl Scouts and 4-H
  - Teachers including Physical Education and Driver Education
  - Commercial Driver Education instructors
  - Parents of young children
  - Beginner Cyclists (5-8)
  - Young Cyclist (9-12)
  - Teenage Cyclists (13+)
  - Adult Cyclists
  - Senior Cyclists

### **General Public Target**

The general public group includes:

- Cyclists
- Non-cyclists

## Education Curricula

The Bike Board proposes to tailor 4 courses provided by the LAB to meet the needs of these specific groups. The LAB courses are:

- Road I
- Kids I
- Kids II
- Motorist

Following are short descriptions of these courses

### Road I



Gives cyclists the confidence they need to ride safely and legally in traffic or on the trail. The course covers bicycle safety checks, fixing a flat, on-bike skills and crash avoidance techniques and includes a student manual. Recommended for adults and children above age fourteen, this fast-paced, nine-hour course prepares cyclists for a full understanding of vehicular cycling.

### Kids I

Designed for parents, instructors explain how to teach a child to ride a bike. Topics covered include how to perform a bicycle safety check, helmet fitting and bike sizing. Includes 10-minute 'Kids Eye View' video and a brochure for parents.

### Kids II



This 7-hour class for 5th and 6th graders covers the same topics as Road I, including on-bike skills as well as choosing safe routes for riding.

### Motorist Education

A 3-hour classroom session, this course can be easily added to a driver's education curriculum, such as diversion training for reckless drivers or a course designed for local bus drivers. Directed towards motorists in general, topics covered include roadway positioning of cyclists, traffic and hand signals, principles of right-of-way and left and right turn problems. Materials include Share the Road literature for bicyclists and motorists as well as other fact sheets.

## Mapping Courses to Target Groups

Table 1 lists education target groups and identifies the courses that the Bike Board proposes to tailor to the target groups' needs.

Target Groups	Course			
	Kids I	Kids II	Road I	Motorist
Bike board			x	
Traffic Commission				x
MPO			x	x
WV DOT engineer(s)			x	x
Police				x
Mayor and City Council			x	x
Planning Commission				x
BOPARC				x
WVU Clubs			x	x
WVU Faculty and Staff			x	x
WVU Students			x	x
K-12 clubs		x	x	
K-12 Teachers esp. PE & Driver Ed	x	x	x	
Commercial Driver Ed				x
Parents of young children	x		x	x
Students 5-8	x			
Students 9-12		x		
Students 13+			x	
General Public: Cyclists			x	
General Public: Non-cyclists				x

**Table 1: Mapping courses to target groups**

### Implementation Plan

The Bike Board recommends an implementation plan that emphasizes 3 stages:

1. Establish local LAB certified effective cycling instructors (LCI)
2. Tailor training materials to target groups
3. Educate key government officials
4. Educate other target groups and train trainers.

### Certify Morgantown Effective Cycling Instructors

On the weekend of March 10-11, Bike Board members will complete, at their own expense, the LAB Bike I training course. Developing local LCIs involves completing the Bike I course, passing a qualifying exam and completing an LCI seminar. Following completion of Bike I, nominally 4 of the successful Bike Board participants will take the qualifying exam and enroll in a LCI seminar. The earliest seminar near Morgantown is

tentatively scheduled for April 7-8 in Bethlehem, Pennsylvania. **The Bike Board recommends that the Traffic Commission ask the City Manager to provide \$2,300 to defray the fee and expenses for 4 Bike Board members to earn LCI certification.**

**Tailor Training Materials**

LCIs will tailor available training resources to maximize their value to each target group. Available resources range from packages that can be purchased and used as-is, to guidelines that can be obtained at no cost and used to tailor available curricula to target groups. The Bike Board has only surveyed these resources to ensure the feasibility of the proposed education plan. An exhaustive investigation, prioritization, selection and implementation will require substantial work by our local LCIs.

**Educate Key Government Officials**

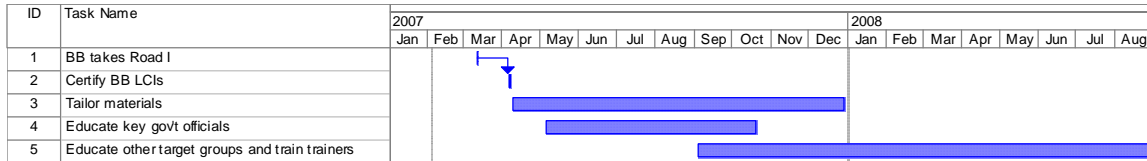
The Bike Board has an objective to educate key government officials: the MPO Executive Director, the local WV DOT district engineer, police, the City Engineer, the Mayor and some of the Traffic Commission and City Council members in effective cycling by the end of autumn 2007. The Bike Board LCIs will tailor the LAB Road I course and Motorist course for these target groups.

**Educate Other Target Groups and Train Trainers**

Local LCIs will train parents, physical education instructors, driver education instructors, scout leaders, athletic club leaders, police, and select BOPARC personnel to enable them to teach effective cycling principals to their children, students, club members and coworkers. Training trainers and making effective cycling an integral component of school curricula, club programs and police training is essential to establishing a self-sustaining effective cycling education program. The training deliveries will be in the context of delivering the appropriate tailored course to the target group in which the prospective trainers belong.

**The Bike Board recommends that the Traffic Commission ask the City Manager to write and submit a grant application to the DOT Section 402 for \$10,000 funds to be spent over a 24 month period to support the LCIs purchasing, developing and delivering training.**

Figure 13 shows an implementation plan schedule that could be implemented if sufficient resources are available when needed.



**Figure 13: Education Implementation Plan Schedule**