Florida Bicycle and Pedestrian Partnership Council

Conserve by Bicycling and Walking
Phase II

Presented by:

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Conserve by Bicycle Program (Phase I)

Background

In 2005, the Florida Legislature created F.S. 335.07, and the Conserve by Bicycle Program within Florida Department of Transportation.

Conserve by Bicycle Program

(1) The purposes of the Conserve by Bicycle Program are to:

(a) Save energy by increasing bicycling, thereby reducing fuel use.

(b) Increase efficiency of cycling transportation by improving interconnectivity.

(c) Reduce traffic congestion.

(d) Provide recreational opportunities for residents and visitors.

(e) Provide healthy activities to improve health and reduce long-term health costs.

(f) Provide safe ways for children to travel to their schools by supporting the Safe Paths to Schools Program.

Conserve by Bicycle Program Study

(2) To accomplish these goals, conduct a Conserve by Bicycle study, to determine:

(a) Where energy savings would result when more and safer bicycle facilities are created to reduce the use of motor vehicles.

(b) Where education and marketing programs can convert motor vehicle trips to bicycle trips.

(c) How/where can the construction of bicycling facilities provide for recreation, and how exercise can reduce health risks tied-to sedentary lifestyles.

Conserve by Bicycle Program Study

(d) How the Safe Paths to Schools Program can reduce school-related traffic, resulting in energy and roadway savings as well as improve children's health.

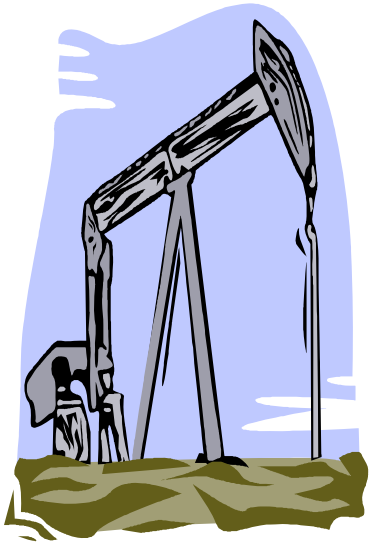
(e) How to create partnerships in transportation, enforcement, education, public health, environmental restoration and energy conservation to better achieve program success.

Conserve by Bicycle Program Study

(3) The study shall produce criteria to determine where and under what circumstances bicycling facilities reduce energy consumption and the need for added roadway capacity, along with associated health benefits.

Recap of Phase I Efforts

- Provision of Bicycle Facilities
  - ✓ Energy savings
  - ✓ Mode shift model
  - ✓ Health benefits
  - ✓ Induced recreational travel model

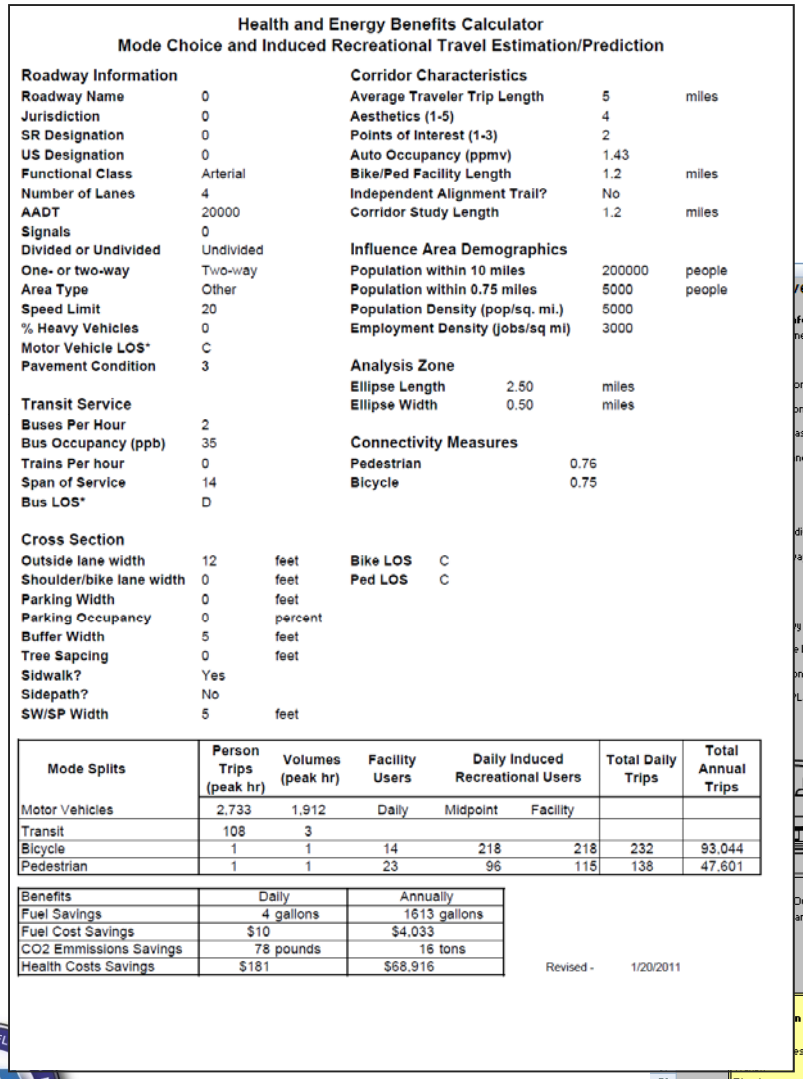


- Bicycle Activity Encouragement & Initiative Programs
  - ✓ Safe Routes to School
  - ✓ Education and marketing programs
  - ✓ Partnerships

Phase II Scope of Services and Task

- Collect “After” Data on Phase I Study Corridors (and more!)
  - ✓ Update to predictive models
- Health and Energy Benefits Calculator and User Guide

Phase II Scope of Services and Task



Health and Energy Benefits Calculator
Mode Choice and Induced Recreational Travel Estimation/Prediction

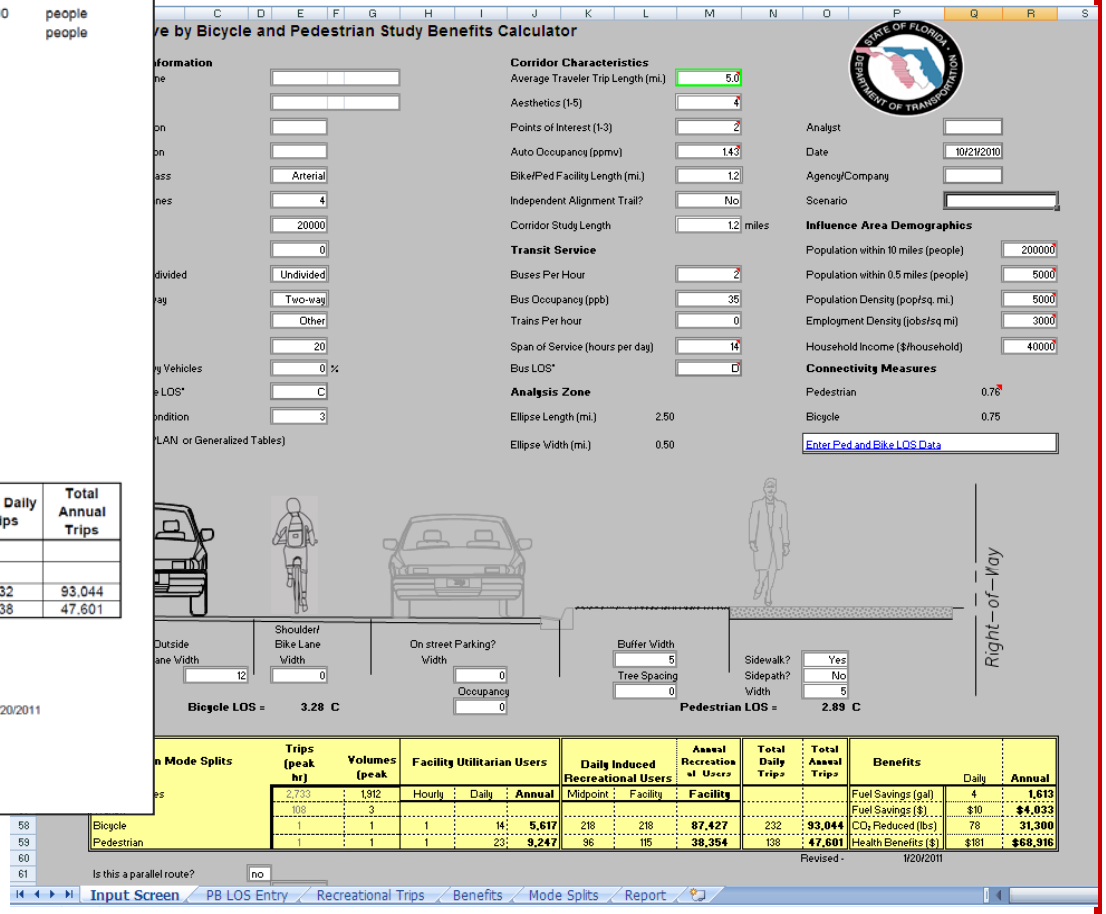
Roadway Information		Corridor Characteristics		
Roadway Name	0	Average Traveler Trip Length	5	miles
Jurisdiction	0	Aesthetics (1-5)	4	
SR Designation	0	Points of Interest (1-3)	2	
US Designation	0	Auto Occupancy (ppmv)	1.43	
Functional Class	Arterial	Bike/Ped Facility Length	1.2	miles
Number of Lanes	4	Independent Alignment Trail?	No	
AADT	20000	Corridor Study Length	1.2	miles
Signals	0			
Divided or Undivided	Undivided	**Influence Area Demographics**		
One- or two-way	Two-way	Population within 10 miles	200000	people
Area Type	Other	Population within 0.75 miles	5000	people
Speed Limit	20	Population Density (pop/sq. mi.)	5000	
% Heavy Vehicles	0	Employment Density (jobs/sq mi)	3000	
Motor Vehicle LOS*	C			
Pavement Condition	3	**Analysis Zone**		
		Ellipse Length	2.50	miles
Transit Service		Ellipse Width	0.50	miles
Buses Per Hour	2			
Bus Occupancy (ppb)	35	**Connectivity Measures**		
Trains Per hour	0	Pedestrian	0.76	
Span of Service	14	Bicycle	0.75	
Bus LOS*	D			

Cross Section				
Outside lane width	12	feet	Bike LOS	C
Shoulder/bike lane width	0	feet	Ped LOS	C
Parking Width	0	feet		
Parking Occupancy	0	percent		
Buffer Width	5	feet		
Tree Sapcing	0	feet		
Sidwalk?	Yes			
Sidepath?	No			
SW/SP Width	5	feet		

Mode Splits	Person Trips (peak hr)	Volumes (peak hr)	Facility Users	Daily Induced Recreational Users		Total Daily Trips	Total Annual Trips
			Daily	Midpoint	Facility		
Motor Vehicles	2,733	1,912					
Transit	108	3					
Bicycle	1	1	14	218	218	232	93,044
Pedestrian	1	1	23	96	115	138	47,601

Benefits	Daily	Annually
Fuel Savings	4 gallons	1613 gallons
Fuel Cost Savings	$10	$4,033
CO2 Emmissions Savings	78 pounds	16 tons
Health Costs Savings	$181	$68,916

Revised - 1/20/2011



Phase II Scope of Services and Tasks

- Analyze Long-term Effects of Bicycle Facilities
- Study the Effects of Incentives/Disincentives
- Evaluations of Safe Routes to School

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Questions and Answers

http://www.dot.state.fl.us/Safety/ped_bike/ped_bike_reports.shtm#Conserve%20by%20Bicycle%20Phase%201%20Study

Bicycle with the traffic flow.