



Sally Flocks
President & CEO, PEDS

Georgia Department of Transportation
Intermodal Committee

June 18, 2014

Transit is the middle leg of
two walking trips



Three out of four walk to transit.



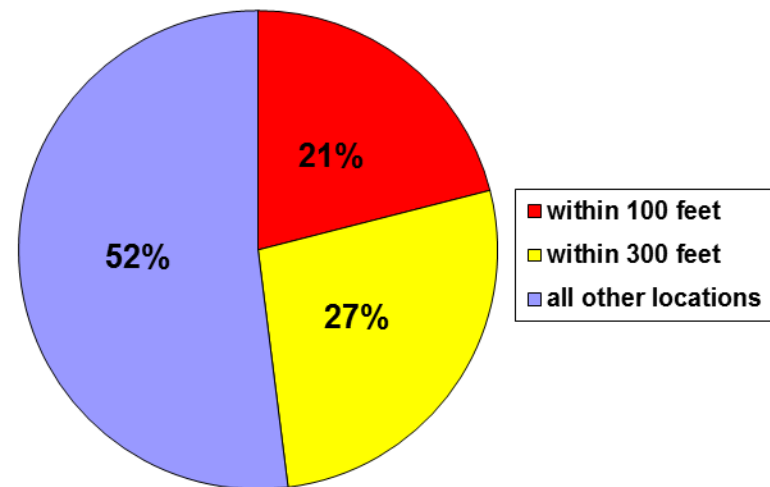
Mode of Access to Transit	Percent
Walked	72.4%
Dropped Off	14.0%
Drove Alone	10.6%
Rode in a vehicle for part of the trip and walked/biked rest of the way	1.8%
Carpooled/Vanpooled	0.9%
Bicycle	0.3%



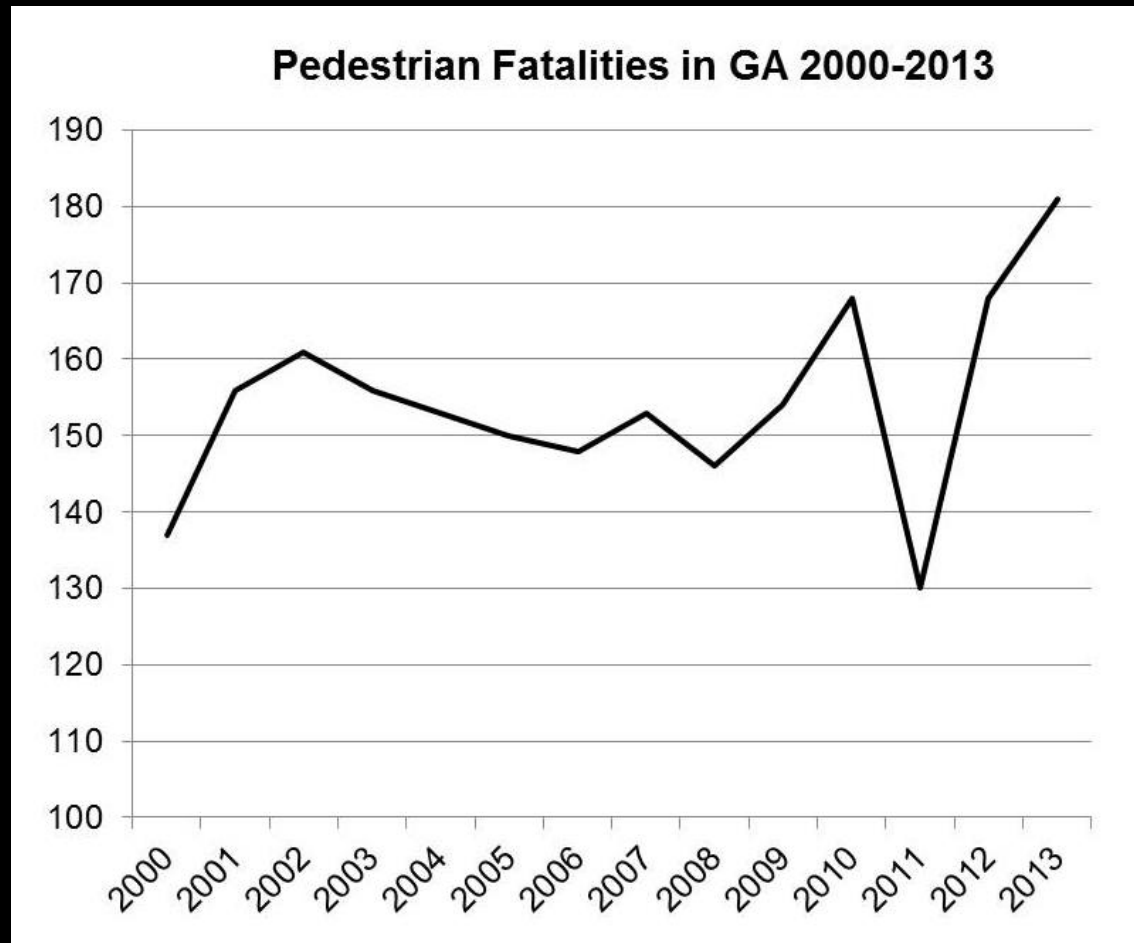
**In the 18-county metro
Atlanta region, 21% of
pedestrian crashes
occurred within
100 feet of a bus stop**

Data provided by Talya Trudell, ARC

**Pedestrian Crashes Near Bus Stops
(2005 - 2008)**



Pedestrian fatalities are a serious and growing problem in Georgia



“Pedestrians have a right to cross streets safely, and transportation professionals have a responsibility to plan, design and install safe and convenient crossing facilities.”



Federal Highway Administration

Safe Routes to Transit
toolkits help
transportation
professionals
answer the question,
**How can that
best be done?**



Toolkits for Safe Crossings in Metro Atlanta



The toolkits provide guidance on selecting appropriate crossing treatments.

Important factors include

- Number of lanes
- Speed limits
- Traffic volume
- Pedestrian traffic



EXECUTIVE SUMMARY

The tables below use road width, speed limits and vehicle and pedestrian volume to help select appropriate treatments. Site-specific studies should consider these and other factors.

NUMBER OF LANES	2	3	4	5	6	7
Crosswalk	✓	✓	✓	✓		
Traffic Calming	✓	✓	✓	✓		
In-Street Sign	✓	✓	✓	✓		
Yellow-Green Signs	✓	✓	✓	✓		
2-Sided Signs	✓	✓	✓	✓		
Crossing Flags	✓	✓	✓	✓		
2-Beacon RRFB	✓	✓	✓	✓		
4-Beacon RRFB	✓	✓	✓	✓		
Flashing Beacons	✓	✓	✓	✓	✓	✓
Embedded Lights	✓	✓	✓	✓	✓	✓
HAWK	✓	✓	✓	✓	✓	✓
Mid-Block Signal	✓	✓	✓	✓	✓	✓
Signal	✓	✓	✓	✓	✓	✓

VEHICLE TRAFFIC	LIGHT	MEDIUM	HEAVY
Crosswalk	✓	✓	✓
Traffic Calming	✓	✓	✓
In-Street Sign	✓	✓	✓
Yellow-Green Signs	✓	✓	
2-Sided Signs	✓	✓	
Crossing Flags	✓	✓	✓
2-Beacon RRFB	✓	✓	✓
4-Beacon RRFB	✓	✓	✓
Flashing Beacons	✓	✓	
Embedded Lights	✓		
HAWK	✓	✓	✓
Mid-Block Signal	✓	✓	✓
Signal	✓	✓	✓

SPEED LIMIT (MPH)	30	35	40	45	50	55
Crosswalk	OK	?	?	NO	NO	NO
Traffic Calming	OK	OK	?	?	NO	NO
In-Street Sign	OK	OK	?	NO	NO	NO
Yellow-Green Signs	OK	OK	?	NO	NO	NO
2-Sided Signs	OK	OK	?	NO	NO	NO
Crossing Flags	OK	OK	?	?	?	?
2-Beacon RRFB	OK	OK	OK	?	?	?
4-Beacon RRFB	OK	OK	OK	?	?	?
Flashing Beacons	OK	OK	OK	?	?	?
Embedded Lights	OK	OK	OK	?	?	?
HAWK	OK	OK	OK	OK	OK	OK
Mid-Block Signal	OK	OK	OK	OK	OK	OK
Signal	OK	OK	OK	OK	OK	OK

PEDESTRIAN TRAFFIC	LIGHT	MEDIUM	HEAVY
Crosswalk	✓	✓	✓
Traffic Calming	✓	✓	✓
In-Street Sign	✓	✓	✓
Yellow-Green Signs	✓	✓	
2-Sided Signs	✓	✓	
Crossing Flags	✓	✓	
2-Beacon RRFB	✓	✓	
4-Beacon RRFB	✓	✓	
Flashing Beacons	✓	✓	
Embedded Lights	✓	✓	
HAWK	✓	✓	✓
Mid-Block Signal	✓	✓	✓
Signal	✓	✓	✓

LEGEND

✓ Indicates the treatment may be feasible
OK Indicates the treatment may provide adequate warning to drivers

? suggests other conditions may limit treatment effectiveness
NO Indicates the treatment is not appropriate

On their own, crosswalks are not safe on roads with more than 3 lanes and over 12,000 cars per day.



Removing crosswalks is not a solution.

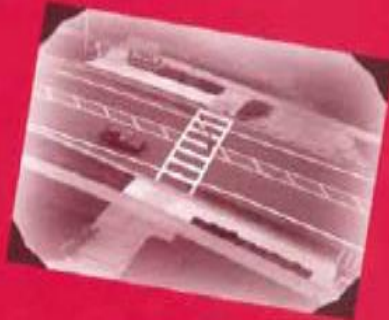


In most cases, marked crosswalks are best used in combination with other treatments:

Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations Final Report and Recommended Guidelines

FHWV PUBLICATION NUMBER: HRT 04-100

SEPTEMBER 2005



U.S. Department of Transportation
Federal Highway Administration

Research, Development, and Technology
Turner Fairbank Highway Research Center
6300 Georgetown Pike
McLean, VA 22101-2298

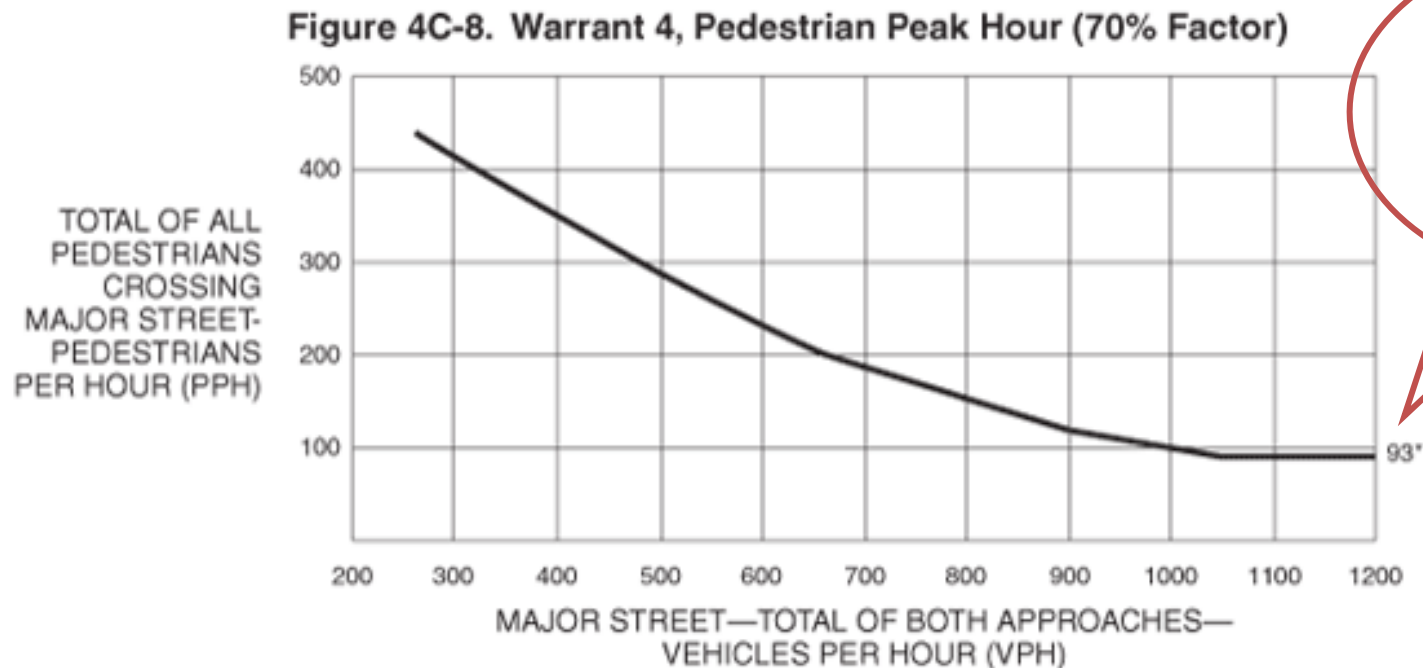


- **Raised crossing islands**
- **Traffic signals**
- **Hybrid pedestrian beacons**
- **Enhanced overhead lighting**
- **Traffic calming measures**

At most locations, traffic signals are not an option.

MUTCD Traffic Signal Warrants

2009 Edition Part 4 Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)

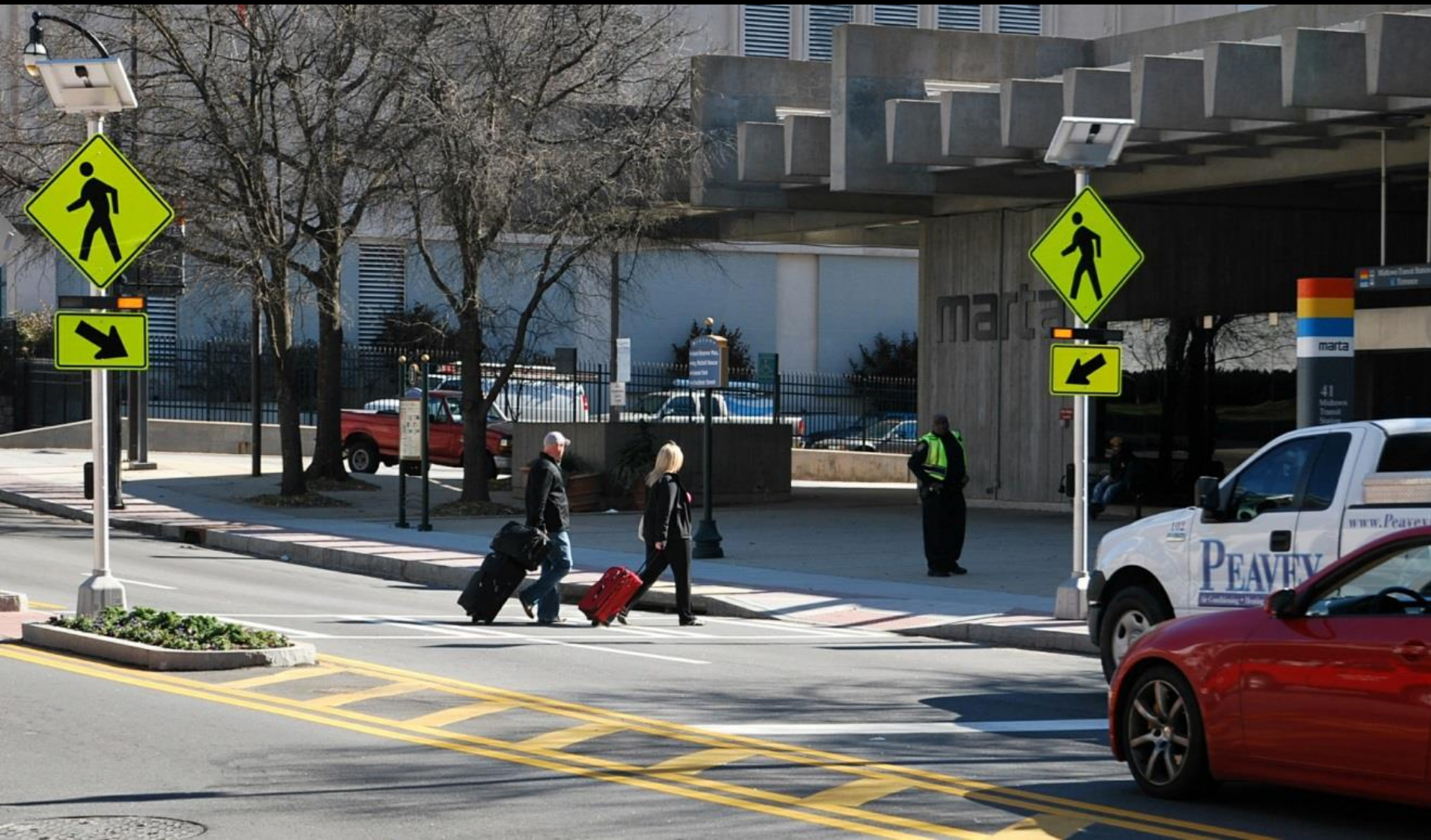


*Note: 93 pph applies as the lower threshold volume.



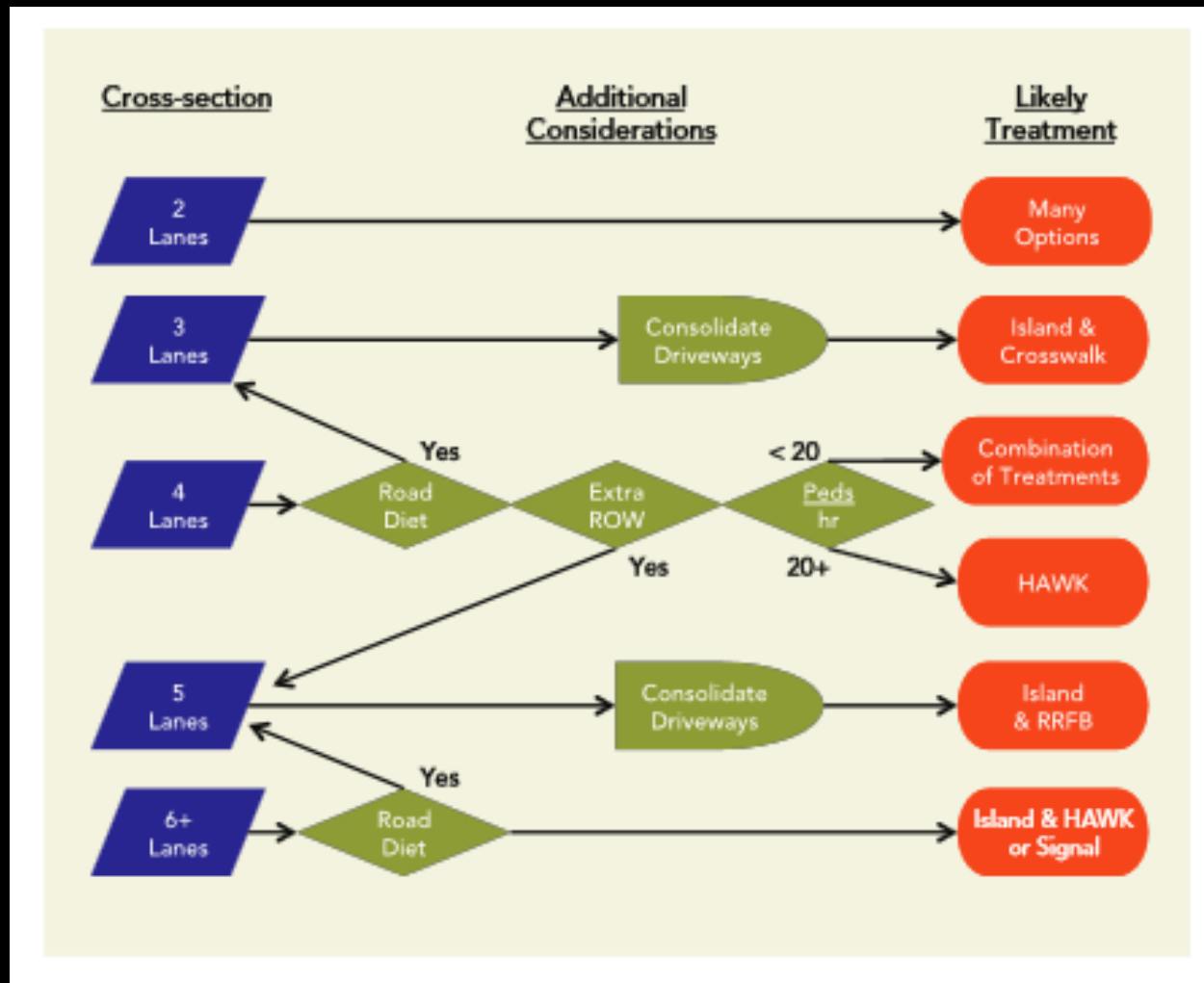
On high speed streets with few safe gaps in traffic, hybrid pedestrian beacons (HAWKS) may be the best solution.





Rectangular Rapid Flash Beacons prompt over 80 percent of drivers to stop or yield to pedestrians

Four and six-lane roads are especially dangerous and may need a combination of treatments



**Don't let the perfect be
the enemy of the good.**



**Median refuge islands
cut pedestrian crashes
by 39 percent**

**Goal: Safe crossings at
all public transit stops**





Toolkits for Safe Crossings in Metro Atlanta



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Available online at peds.org/saferoutes_toolkits



peds.org