# Pinellas County Pedestrian Safety Action Plan

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<th>Stakeholder</th>
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<tr>
<td>Gina Harvey</td>
<td>Pinellas County MPO</td>
<td>727.464.8200</td>
<td><a href="mailto:gharvey@co.pinellas.fl.us">gharvey@co.pinellas.fl.us</a></td>
</tr>
<tr>
<td>Susan Miller</td>
<td>Pinellas County MPO</td>
<td>727.464.8200</td>
<td><a href="mailto:smiller@co.pinellas.fl.us">smiller@co.pinellas.fl.us</a></td>
</tr>
<tr>
<td>Robert Davis</td>
<td>Pinellas County Public Works/Transportation</td>
<td>727.464.8855</td>
<td><a href="mailto:rDavis@co.pinellas.fl.us">rDavis@co.pinellas.fl.us</a></td>
</tr>
<tr>
<td>Tom Washburn</td>
<td>Pinellas County Public Works/Transportation</td>
<td>727.464.8804</td>
<td><a href="mailto:twashburn@co.pinellas.fl.us">twashburn@co.pinellas.fl.us</a></td>
</tr>
<tr>
<td>Himanshu Patni</td>
<td>City of Clearwater Public Works</td>
<td>727.562.4560</td>
<td><a href="mailto:himanshu.patni@myclearwater.com">himanshu.patni@myclearwater.com</a></td>
</tr>
<tr>
<td>Cheryl Stacks</td>
<td>City of St. Petersburg Dept. of Transportation &amp; Parking</td>
<td>727.892.3328</td>
<td><a href="mailto:cheryl.stacks@stpete.org">cheryl.stacks@stpete.org</a></td>
</tr>
<tr>
<td>Michael Frederick</td>
<td>City of St. Petersburg Dept. of Transportation &amp; Parking</td>
<td>727.893.7843</td>
<td><a href="mailto:michael.frederick@stpete.org">michael.frederick@stpete.org</a></td>
</tr>
<tr>
<td>David Fechter</td>
<td>Pinellas County CTST Chair</td>
<td>727.540.1800</td>
<td><a href="mailto:dfechter@co.pinellas.fl.us">dfechter@co.pinellas.fl.us</a></td>
</tr>
<tr>
<td>Steve Fairchild</td>
<td>Pinellas County School Board</td>
<td>727.638.3230</td>
<td><a href="mailto:fairchilds@pcsb.org">fairchilds@pcsb.org</a></td>
</tr>
<tr>
<td>Thomas McGinty</td>
<td>Pinellas County School Board</td>
<td>727.547.7288</td>
<td><a href="mailto:mcgintyt@pcsb.org">mcgintyt@pcsb.org</a></td>
</tr>
<tr>
<td>Glen Luben</td>
<td>Pinellas County Sheriff's Office</td>
<td>727.582.6730</td>
<td><a href="mailto:gluben@pcsonet.com">gluben@pcsonet.com</a></td>
</tr>
<tr>
<td>Bill Steele*</td>
<td>Pinellas Suncoast Transit Authority</td>
<td>727.540.1802</td>
<td><a href="mailto:wsteele@psta.net">wsteele@psta.net</a></td>
</tr>
<tr>
<td>Kevin Hoyt*</td>
<td>Pinellas Suncoast Transit Authority</td>
<td>727.540.1800</td>
<td><a href="mailto:khoyt@psta.net">khoyt@psta.net</a></td>
</tr>
<tr>
<td>David Skrelunas</td>
<td>FDOT District 7 - Traffic Operations</td>
<td>813.975.6254</td>
<td><a href="mailto:david.skrelunas@dot.state.fl.us">david.skrelunas@dot.state.fl.us</a></td>
</tr>
<tr>
<td>Gary Thompson</td>
<td>FDOT District 7 - Traffic Operations</td>
<td>813.975.4216</td>
<td><a href="mailto:gary.thompson@dot.state.fl.us">gary.thompson@dot.state.fl.us</a></td>
</tr>
<tr>
<td>Peter Hsu</td>
<td>FDOT District 7 - Traffic Operations</td>
<td>813.975.6251</td>
<td><a href="mailto:ping.hsu@dot.state.fl.us">ping.hsu@dot.state.fl.us</a></td>
</tr>
<tr>
<td>Hussein Sharifpour</td>
<td>FHWA Florida Division</td>
<td>850.942.9650</td>
<td><a href="mailto:hussein.sharifpour@fhwa.dot.gov">hussein.sharifpour@fhwa.dot.gov</a></td>
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### Stakeholder Workshop Facilitators

<table>
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<th>Facilitator</th>
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<tr>
<td>Rudy Umbs</td>
<td>FHWA Resource Center</td>
<td>202.365.3285</td>
<td><a href="mailto:rudolph.umbs@dot.gov">rudolph.umbs@dot.gov</a></td>
</tr>
<tr>
<td>Michael Moule</td>
<td>Livable Streets, Inc. (for FHWA)</td>
<td>813.254.7708</td>
<td><a href="mailto:moule@livablestreetssinc.com">moule@livablestreetssinc.com</a></td>
</tr>
<tr>
<td>Demian Miller</td>
<td>Tindale-Oliver &amp; Assoc. Inc. (for FDOT D7)</td>
<td>813.224.8862</td>
<td><a href="mailto:dmiller@tindaleoliver.com">dmiller@tindaleoliver.com</a></td>
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* * Did not attend PSAP Workshop - Interviewed Subsequently
Section 1 | Introduction

PEDESTRIAN SAFETY ACTION PLAN APPROACH

The Pinellas County Pedestrian Safety Action Plan (PSAP) approach was based on the PSAP Template developed with funding and assistance from the Federal Highway Administration (FHWA) in close cooperation with the University of North Carolina’s Highway Safety Research Center. Florida Department of Transportation (FDOT), FHWA advisors, and other pedestrian stakeholders applied the PSAP Template to suit the needs of Pinellas County. The purpose of the PSAP is to help local government agencies focus on the pedestrian crash issues specific to their jurisdiction, provide a set of proven strategies for consideration, and help practitioners understand the tools and organizational changes necessary to implement these strategies.

On September 8, 2008, representatives from the following entities met for a day-long workshop led by FHWA national pedestrian safety experts:

- Pinellas County Metropolitan Planning Organization,
- Pinellas County Sherriff’s Office,
- Pinellas County Public Works,
- Pinellas County School System,
- FDOT staff and consultants,
- City of Clearwater, and
- City of St. Petersburg.

This Stakeholder Committee workshop brainstormed and completed the Pinellas County PSAP Template, defined overall pedestrian safety goals, and developed strategies to move forward. This Pedestrian Safety Action Plan is a synthesis of the ideas generated in the workshop and a quantitative analysis of the Pinellas County pedestrian crash problem.

Throughout this document, underlined terms are defined in the sidebar area.

PURPOSE OF PEDESTRIAN SAFETY ACTION PLAN

Over the past five years, the number of per capita pedestrian crash fatalities in the State of Florida has been higher (worse) than every other state except New Mexico. While other fast growing sunbelt states such as Arizona, Nevada, California, and Texas also have higher per capita pedestrian crash fatality rates than the national average, Florida’s rate is 50% higher than California’s rate, 62% higher than Texas’s rate, and 85% above the national average. The State’s tourist economy and demographics may contribute to this unenviable status; however, Florida’s pedestrian crash performance cannot be explained solely as a byproduct of these factors.

As with most of Florida’s urban counties, Pinellas County’s per capita pedestrian crash fatality rate of 3.02 fatalities per 100,000 persons is comparable with the state average of 2.99 per 100,000 persons. Over the past five years, on average, 28 people per year have died in Pinellas County pedestrian crashes, nearly 100 people per year have sustained incapacitating injury, and an additional 260 people per year have sustained less severe injuries. If the Pinellas County per capita crash rate was reduced to the rate of California or Texas, 40 – 45 people per year could be spared death or incapacitating injury. If the County’s rate could be brought to the national average, lives saved would increase to nearly 60 people per year.
The purpose of the Pinellas County PSAP is to establish a framework to realize improved pedestrian safety performance through the following processes:

- Define the characteristics of the pedestrian crash problem in Pinellas County;
- Identify short term actions to improve pedestrian safety;
- Identify longer term policy initiatives to sustain pedestrian safety improvements;
- Identify opportunities for interagency and intra-agency coordination; and
- Provide an opportunity for elected leaders to support agency staff in implementing short and long term strategies.

### Per Capita Pedestrian Crash Fatality Rates

A standardized number representing number of pedestrians fatally injured per population.

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Where appropriate, the Pinellas PSAP applies a multi-disciplined “4E” approach to improve pedestrian safety. The term “4E” refers to engineering, enforcement, education, and emergency medical services (EMS). For the purpose of the PSAP, each of these entities is defined as follows:

- **Engineering** – Capital infrastructure, operating, and planning functions of transportation agencies such as FDOT, City and County Public Works Departments, and the Pinellas Suncoast Transit Authority (PSTA) and MPO.

- **Enforcement** – Law enforcement agencies and court systems.

- **Education** – Primary and secondary school programs and curriculum, public information programs, and social services agencies and community organizations.

- **Emergency Medical Services (EMS)** – Generally emergency responders, however the Pinellas PSAP expands the definition to include public health agencies as these may also play a preventative role rather than strictly responding to pedestrian crash events.

Many of the most effective pedestrian safety engineering countermeasures are of limited applicability along the higher speed, higher volume roadways, where most Pinellas County pedestrian crashes occur. Therefore, a 4E approach is especially relevant in addressing the County’s pedestrian crash problem.

In addition to a multifaceted approach, another central theme of the PSAP is coordination within and between agencies. Consideration of these questions is a crucial component of the PSAP.

- How can transportation planning and maintaining agencies such as FDOT, the Pinellas County MPO, and Pinellas County Public Works, effectively include pedestrian safety improvements in their overall programs?

- How can law enforcement address traffic safety and pedestrian safety outside of traffic units?

What can be done to coordinate law enforcement, education, and engineering efforts to work together along a corridor to maximize results? Consideration of these questions is a crucial component of the PSAP.

It is important to note that while bicyclist and pedestrian safety are often lumped together this report is focused on pedestrian safety. In many instances, improvement in pedestrian safety can improve safety for bicyclists as well as pedestrians and to that extent this report addresses bicycle safety. Beyond that intersection, however, this report will not address bicycle safety.

The **Goals, Objectives, and Action Items** section of the Plan describes specific steps to improve pedestrian safety in Pinellas County based on an analysis of the County’s pedestrian crash history. This report also includes the following technical appendices:

- **Appendix A**: PSAP Existing Conditions Inventory
- **Appendix B**: Summary of Education and Enforcement Programs and Practices
- **Appendix C**: Relevant Statutes
- **Appendix D**: Pinellas County Pedestrian Crash Data & Analysis
RECENT ACTIVITY SUMMARY

While the PSAP is intended to provide direction for pedestrian improvements in Pinellas County, it is recognized that pedestrian safety has been an important part of state and local efforts for a number of years. The following provides an overview of significant activities recently occurring within the county with regards to pedestrian safety. This list is merely a sampling of activities and not meant to be comprehensive—Additional information regarding ongoing activities can be found in Appendix A of this report.

- The Pinellas MPO spearheaded a statewide effort to require drivers to stop for pedestrians in crosswalks as opposed to just yielding to pedestrians. MPO staff felt strongly that pedestrians need a greater assurance of safety in order to encourage walking and other alternative modes of transportation. Florida Statute 316.130 was passed in 2008.

- FDOT District 7 has invested substantially in pedestrian safety in the last two years. The Highway Safety Program has invested $2 million in countdown pedestrian signals and the Safe Routes to School program has invested in excess of $3.5 million in solar-powered speed feedback signs, school flashers, and sidewalks.

- The City of St. Petersburg has conducted trial installation of crosswalk flashing beacons at several locations through-out the city—including multi-lane collector roadways. The use of Rectangular Red Flashing Beacons was granted interim approval by FHWA in July of 2008 (http://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/fhwamemo.htm)

- Pinellas County has a policy of installing high-visibility crosswalks and has allotted $3 million in FY 08/09 for sidewalks and ADA compliance.

- The City of Clearwater reconstructed Cleveland Street to enhance walk-ability and has an aggressive street lighting program.

ACTION PLAN SUMMARY

Core recommendations of the PSAP are as follows:

- Most Pinellas County pedestrian crashes involve pedestrians attempting to cross major roads. These crashes happen at mid-block and signalized locations. To address this issue, the following actions should be taken:
  - Roadway maintaining agencies should identify potential opportunities to improve pedestrians’ ability to safely cross major roadways through the following activities:
    - Installing enhanced mid-block crosswalks;
    - Installing raised medians and traffic control islands along roadways without raised medians;
    - Making signing, striping, and traffic signal operational improvements to signalized intersections; and
    - Improving street lighting at signalized intersections, major transit stops, high crash corridors, and mid-block crossing locations.
  - Concurrent with resurfacing or reconstruction projects, reconstruction of major intersections should be considered.
  - Resurfacing and capacity projects, along high pedestrian crash corridors, should include a Pedestrian Safety Audit prior to design scoping.
  - Retrofits and future enhancements should primarily focus on major transit routes and stops.
Most pedestrian crashes, both nationally and in Pinellas County, involve adult males being struck by automobiles. Education efforts should focus on this group while enhancing primary and secondary school traffic safety education efforts. Enforcement efforts should also be used as opportunities to educate. Recommended actions include:

- A multi-media public education/awareness campaign should be employed to raise awareness of the pedestrian crash problem and improve driver and pedestrian compliance with existing traffic laws. It should include information on the new state law (F.S. 316.130) that requires drivers to stop for pedestrians as opposed to yielding to them.
- Transit infrastructure should be used as a focal point for pedestrian safety education/awareness materials, since most transit trips include a pedestrian component. Many of the highest pedestrian crash concentrations are along transit routes and/or in areas where demographic trends suggest a high propensity for transit use.
- Secondary school Health and Safety curriculum should include traffic safety as this is a public health issue. Non-traditional media, including social networking websites, should be used to educate secondary school students regarding their rights and responsibilities as drivers and pedestrians.
- Driver-oriented enforcement efforts should include a strong educational component and should be coordinated with the court system to ensure tickets are not seen as frivolous. Mass media and roadway signs should be used to “warn” drivers along corridors prior to and during enforcement waves since the principal goal is to educate drivers and pedestrians.
- Pedestrian enforcement should, where feasible, utilize a community policing approach.

Mid-Block Crosswalks
A pedestrian crosswalk located in the middle of a roadway block, not at an intersection. May also refer to a marked crosswalk on a major roadway at any unsignalized location. Example shown includes landscaped island.

Community Policing Approach
This approach is a policing strategy and philosophy based on the notion that community interaction and support can help control crime and reduce fear, with community members helping to identify suspects, detain vandals and bring problems to the attention of police.

Local Option Fuel Tax
There are three local option gas taxes available to counties: One-Six Cents Local Option Fuel Tax, One-Five Cents Local Option Fuel Tax, and Ninth-Cent Fuel Tax. The One-Six Cents Local Option Fuel Tax, or First Local Option, is a tax of 1 to 6 cents on every net gallon of motor and diesel fuel sold within a county. Pinellas has adopted all six cents of this tax. The One-Five Cents Local Option Fuel Tax is in addition to the previous One-Six Cents Local Option in which the Legislature authorized an additional tax of 1 to 5 cents on every net gallon of motor fuel sold within a county. This tax does not include diesel fuel. Pinellas County has not adopted any of this tax. The Ninth-Cent Fuel Tax is a tax of one cent on every net gallon of motor and diesel fuel sold within a county. Pinellas County has adopted this tax.
The PSAP recommends a coordinated strategy as follows:

- Implement multiple simultaneous pedestrian safety infrastructure improvements along a corridor or within a neighborhood area.
- While under construction, use print media, billboards, and variable message signs to advertise the projects and educate pedestrians and drivers in the area. Consider “branding” PSAP projects in a similar manner to planned use of a distinctive logo to be used with American Recovery and Reinvestment Act projects. Issue press releases when projects go under construction and invite elected leaders to ribbon-cutting ceremonies for new infrastructure.
- Once operational, deploy law enforcement along the subject corridor to educate, issue warnings, and then issue citations.

Analysis shows that more than 40% of pedestrian crashes are concentrated along less than 5% of the Pinellas County major roadway network. Based on a concentrated approach to this sub-set of the major roadway network, infrastructure strategies and costs identified in the PSAP, an annual funding level of $2 to 3 million for pedestrian safety capital projects over the next ten years is recommended based on analysis discussed as part of Objective 4.01 in Section 2 of this report. This approach could utilize approximately 40% FDOT/FHWA Highway Safety Program funds and 60% local funds including:

- MPO flexible federal funds,
- Local Option Fuel Tax, Penny for Pinellas, and CIT funds, and
- Federal and State traffic safety grant funds.

SAFETEA-LU also allows District 7 to utilize federal safety funds to conduct limited public education campaigns in conjunction with specific safety construction projects. Of the State component of PSAP funding, $80 - $120 thousand annually should be directed towards pedestrian safety public information campaigns.

**Penny for Pinellas**
Penny for Pinellas is a 1 percent local option government sales tax that is earmarked for capital improvement projects dealing with roads, flood control, park improvements, preservation of endangered lands and public safety. The Penny for Pinellas was passed by voters countywide in 1989. In March 2007, voters approved extending Penny for Pinellas until 2020.

**CIT Funds**
Capital Infrastructure Tax – A local option penny or half-cent sales tax used to fund infrastructure investments.

**SAFETEA-LU**
The Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users is the current federal funding legislation for highways, highway safety, and public transportation. Totaling $244.1 billion, SAFETEA-LU represents the largest surface transportation investment in our Nation's history. The two landmark bills that brought surface transportation into the 21st century—the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21)—shaped the highway program to meet the Nation's changing transportation needs. SAFETEA-LU builds on this firm foundation, supplying the funds and refining the programmatic framework for investments needed to maintain and grow our vital transportation infrastructure.

CONCEPTUAL AND OPERATIONAL GOALS

The ultimate goal of the Pinellas PSAP is to reduce the countywide per capita rate of pedestrian crashes, injuries, and fatalities. To achieve this end goal, the PSAP Stakeholder Committee suggested the following goal statements:

- Transform the existing transportation network to accommodate bicycling and walking;
- Change the character of roadways to allow safe/convenient crossing by pedestrians;
- Reduce the number of pedestrian crashes; and
- Reduce the pedestrian crash rate (as a function of population) to within one standard deviation of the fifty state crash rates by the year 2020.

The last goal statement translates to a per capita pedestrian fatality rate of less than 2.08 fatal pedestrian crashes per 100,000 people (down from approximately 3.02 over the past five years). Because fatal crashes tend to fluctuate from year to year, a reasonable way to express this goal is in terms of “severe” crashes, i.e. crashes in which a fatality or incapacitating injury is recorded. A pedestrian crash reduction of this type would result in an economic benefit of at least $70 million per year based on the most recent crash cost data provided by the State Safety Office.

Achieving this 10-year goal puts Pinellas County closer to the State of California ranking and establishes a trajectory to bring the County’s pedestrian crash rate in line with the national average (1.6 fatal crashes or approximately 7.5 severe crashes per 100,000 people). Once these goals are achieved, Pinellas County may elect to push forward and become a national leader in pedestrian safety and mobility (less than 1 fatal crash or less than approximately 4.5 severe crashes per 100,000 people).

PSAP Stakeholder Committee

The committee is a group of individuals from various agencies interested in pedestrian safety. These include individuals from transit agencies, municipalities, MPOs, law enforcement, and the department of transportation.

One Standard Deviation

Standard Deviation is a measure of the variability or dispersion of a population, a data set, or a probability distribution. A low standard deviation indicates that the data points tend to be very close to the same value (the mean), while high standard deviation indicates that the data are spread out over a large range of values. To calculate standard deviation, determine the mean for a set of data points. Subtract the mean from each data point and square the results of each. Then sum these figures together and divide by the number of data points. One standard deviation results from the range created by adding the standard deviation to the mean and subtracting the standard deviation from the mean.

Crash Cost

Data compiled annually by the State Safety Office based on Florida crash experience and national crash cost data. Crash costs consider vehicle and property damage, medical expenses, lost wages, and quality of life impacts.

Florida Crash and Injury Cost Data

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<thead>
<tr>
<th>CRASH DOLLAR VALUE</th>
<th>No Injury</th>
<th>Possible Injury</th>
<th>Non-Incap. Injury</th>
<th>Incap. Injury</th>
<th>Fatality</th>
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<td>$63,510</td>
<td>$104,052</td>
<td>$521,768</td>
<td>$6,380,000</td>
</tr>
</tbody>
</table>

http://www.tfhrc.gov/safety/pubs/05051/03.htm#mon
It is important to note that the quantitative goals of achieving short-term and long-term reductions in the frequency and rate of pedestrian crashes was preceded by goals to “transform” and “change” the character of the transportation network to accommodate non-motorized travel modes (biking and walking). While one means to reduce the pedestrian crash rate would be to discourage pedestrian activity along the major roadway network, this (dubious) approach would clearly contradict the goals proposed by the stakeholder committee.

The conceptual goals stated above must be achieved through attaining specific, measurable objectives. These objectives can be grouped under a series of implementation goals which consider not only the conceptual goals discussed above, but also incorporate data collected as part of the PSAP Template. These operational goals can be summarized as follows:

**Goal 1:** Improve transportation system infrastructure (through the implementation of strategic countermeasures and construction of new transportation facilities) to optimize the safety of all users.

**Goal 2:** Change the “culture” of drivers and pedestrians to increase compliance with existing laws and encourage mutual respect and courtesy.

**Goal 3:** Reduce real and perceived conflicts between the need to efficiently move automobiles and pedestrian safety and mobility through private investment in compact, mixed-use developments.

**Goal 4:** Coordinate 4E activities with the full support of elected and appointed leaders.

Each of these goals is explained in greater detail on the following pages.
Goal 1: Improve transportation system infrastructure through the implementation of strategic countermeasures and construction of new transportation facilities to improve the safety of all users.

Long-term improvements in pedestrian crash rates rely on drivers and pedestrians behaving prudently; however, it is generally understood that enforcement and education strategies in the absence of good design are seldom effective in the long term. Conversely, appropriate, intuitive design of public facilities fosters “good” behavior among most users and allows law enforcement and education initiatives to focus on the comparatively small group of individuals who continue to misuse/misunderstand transportation facilities.

As part of a 4E approach to improving Pinellas County’s pedestrian safety performance, public agencies can ask drivers and pedestrians to change their behavior through education and enforcement. They may also act to address the pedestrian safety problem through transportation system capital and operational improvements. While tactical infrastructure improvements should be used to address specific problem issues, the “random” nature of pedestrian crashes often requires a broad, strategic approach based on prototypical pedestrian crash experience rather than specific crash histories at individual improvement sites. A highly visible, strategic investment in pedestrian safety infrastructure may also help “wake up” the driving and walking public, especially when coordinated with education and enforcement activities.

Analysis of Pinellas County’s pedestrian crash history indicates that pedestrian crashes are concentrated along major multilane roadway corridors. They predominantly involve attempts to cross these higher speed, higher volume facilities at both signalized intersections and un-signalized locations. Based on this analysis, the objectives and action items associated with Goal 1 are oriented towards improving the ability of pedestrians to safely cross major roadways.

Goal 1 also includes objectives and actions to articulate trade-offs between pedestrian safety and automobile travel efficiency and safety. When a pedestrian safety improvement may increase automobile crash risks, a quantitative analysis should be considered to determine the appropriate course of action. However this analysis should consider crash injury severity rather than crash incidence alone. On average, pedestrian crashes are much more likely to result in death or incapacitating injury than most automobile crash types. When a pedestrian (or automobile) safety improvement is likely to reduce roadway capacities/average travel speeds, this should be considered in the overall context of the community as discussed in Goals 3 and 4.

Goal 2: Change the “culture” of drivers and pedestrians to increase compliance with existing laws and encourage mutual respect and courtesy.

Observation of driver and pedestrian behavior in Pinellas County, and elsewhere in the State of Florida, suggests that laws governing driver-pedestrian interactions are not well understood or well respected. While certainly a challenge to improving pedestrian safety, past experience shows that long-term education and enforcement campaigns have proven effective in adjusting attitudes of drivers. For example: The national proportion of drivers in fatal crashes who had been drinking and had a BAC of .08 or higher decreased from 35% in 1982 to 20% in 2005. Safety belt use in the U.S. has increased from 73% in 2001 to 83% in 2008.

Other examples of successful efforts to change public attitudes and behavior in the face of perceived social norms include the following initiatives:

- National efforts to change attitudes about recycling resulting in curbside collection programs in recycling programs in urban areas.
• Campaigns to educate the public that cigarettes are addictive and unhealthy and, at a minimum, that it is immoral to expose children to secondhand smoke.
• For better or worse, creation of markets for bottled water, 24-hour cable news, “music” television, running shoes, and $4.00 cups of coffee.

Based on these broad changes in perception and behavior, it is reasonable to surmise that educating drivers and pedestrians on existing traffic laws is not beyond the scope of a robust public information campaign, supported by appropriate law enforcement activity. Based on a review of the County’s pedestrian crash history and other data, campaigns should address specific statutory compliance issues:

• Pedestrian understanding of and compliance with traffic signals and/or pedestrian crossing signals;
• Pedestrians allowing sufficient stop/yield response time when crossing at unmarked crosswalks;
• Pedestrians yielding to motor vehicle traffic when crossing outside of crosswalks;
• Drivers yielding to pedestrians when making permissive right turn, permissive left turn, and right-turn-on-red movements at intersections;
• Drivers yielding to or stopping for pedestrians as they approach the curb at marked and unmarked crosswalks; general awareness of the circumstances under which drivers, in all approaching lanes, are required to stop for pedestrians;
• Public intoxication, driving under the influence of drugs and/or alcohol, and responsible vendor behavior; and
• Compliance with posted speed limits and speeds appropriate for conditions.

Public education efforts should also promote the use of light-colored or retro-reflective apparel by pedestrians to improve their nighttime visibility.

Unmarked Crosswalks
The “logical” extension of a sidewalk running perpendicular to the street being crossed. Motorists must yield to pedestrians crossing in unmarked crosswalks, though many motorists (and pedestrians) are un-aware of their responsibilities and rights in these circumstances.

Permissive Left Turn
At a protected left turn (signal includes a green turn arrow), after the green arrow terminates, it is followed by a yellow arrow to indicate the exclusive left turn movement (“protected”) has ended. However, motorists will see a solid green ball indication without a red arrow so they can still make a left turn when safe to do so (“permissive”), as long as they yield to on-coming traffic. This makes the intersection more efficient and reduces delay.
Goal 3: Manage competing objectives of efficient automobile travel and pedestrian safety and mobility through land use strategies.

As with most communities that developed extensively in the second half of the 20th century, Pinellas County’s built environment is oriented towards automobile mobility, often at the expense of safe and efficient pedestrian mobility. This is especially true in the northern half of Pinellas County where the grid street system gives way to a more widely spaced web of six-lane, arterial roadways with limited local and collector street connectivity. Generally, planners recognize the need to retrofit suburbs developed in the era following World War II to provide practical and safe alternatives to automobile travel; however, this process often requires redevelopment of existing commercial and residential land and therefore will not bear fruit in the near-term. Just as a pedestrian-oriented built environment can contribute to positive driver and pedestrian behavior and interactions, an environment which makes pedestrians the exception, rather than the rule, can contribute to unsafe behavior on the part of both drivers and pedestrians.

Pinellas County’s elected and appointed leaders and the County’s citizens have expressed interest in improving pedestrian mobility and consternation at the County’s pedestrian safety track record. However the necessity of traveling long distances to work and shop limits the ability of County leaders to act practically and decisively to prioritize pedestrian safety and mobility above automobile travel efficiency. Automobile dependency also complicates issues associated with elder road users and limits the viability of implementing stricter licensing requirements for young drivers and repeat traffic offenders.

While Goal 1 contemplates objectives and actions to increase the suitability of the transportation system for pedestrians through marginal capital and operational improvements, Goal 3 includes objectives and actions to re-orient the mobility needs of the County such that walking becomes a viable means of serving daily trip purposes for all socioeconomic strata. Achieving this “transformative” goal would provide policy makers with real options to transition new and existing transportation system assets to prioritize pedestrian, bicycle, and transit mobility.

Goal 4: Coordinate 4E activities with the full support of elected and appointed leaders.

Achieving the benchmark pedestrian crash rate reductions identified in the PSAP Conceptual Goals will require a long-term commitment to the 4E strategies identified in the Plan. While pedestrian safety tends to emerge as a “hot-button” issue from time to time, a critical goal of the PSAP is to keep pedestrian safety at the forefront of agency agendas and public policy platforms. Besides maintaining a sense of urgency with respect to achieving pedestrian safety objectives, the support of elected and appointed leaders is also imperative in helping agencies responsible for implementing the Plan to act in concert and prioritize the financing of the capital and operating components.

Education programs, law enforcement activities, pedestrian supportive land development codes, and the County’s elected and appointed leadership can help bridge organizational silos when intra-agency and interagency coordination is required. Coordination between agencies can create issues:

- **Limiting measures of effectiveness** – Roadway resurfacing programs are often rated based on lane miles per dollar spent. Including pedestrian and automobile safety improvements in roadway resurfacing project scopes can optimize use of agency funds, but reduces the number of lane miles per dollar and may therefore “count against” resurfacing programs.
• Separation between general fund and enterprise fund revenues – Stormwater projects offer an opportunity to install new sidewalks and the most complex aspect of sidewalk and curb ramp projects is often stormwater design. Although it may be necessary and appropriate to avoid mixing enterprise (stormwater) and general (sidewalk) funds, this should not prevent project coordination such as “split-funding” combined sidewalk/stormwater projects and use of lower overhead, in-house design resources based on inter-department reciprocity or cross-charges.

• Limited coordination between land development review, traffic operations, and project development groups – Needed pedestrian safety improvements may be incorporated into roadway capacity projects necessitated by development traffic impact studies or planned projects in an agency’s capital program. Lack of early identification and coordination of pedestrian (and other operational/safety needs) may limit opportunities to include these in the design phase of roadway capacity projects. This is especially true of developer-motivated projects as these may respond to ad hoc needs and not be planned in a 5-year or longer Capital Improvement Program cycle.

Often, these organizational barriers are artifacts of budget line items and otherwise well-meaning and logical measures of effectiveness. Regardless of cause, it is the responsibility of agency staff to identify barriers to progress and recommend reasoned alternatives to the County leadership whenever these barriers cannot be resolved at a departmental or division level.

Built Environment
As opposed to the natural environment, the build environment refers to the man-made surroundings that provide the setting for human activity.

Silos
A term used to refer to isolated business units within a hierarchal organization which limit peer-to-peer interaction between departments.

General Fund
General revenues funded principally by property tax and sales tax which are not earmarked for specific purposes and are often competed for between public safety, parks and recreation, administration, and capital needs.

Enterprise Funds
An Enterprise Fund is a fund generated when a government agency provides goods or services to the public in exchange for a fee that makes the agency self-supporting.

Split-Funding
Using revenues from two different sources to fund a multi-part project. For example, while enterprise funds are used for stormwater projects and general funds are used for sidewalk projects, a stormwater/sidewalk project would require split-funding from both the enterprise and general funds to complete the different phases of the project.

Cross-Charges
A cross-charge represents the movement of funds from one department to another department within the same governmental unit. The funds are moved in order to reimburse the one department for doing work on behalf of the other department.
Another important role of County leadership is supporting agency staff when the right decision for improving pedestrian safety may conflict with other community goals or values. In some circumstances, pedestrian safety infrastructure improvements may compete with automobile capacity needs.

Redirection of limited law enforcement resources to raise the profile of pedestrian safety may take away from other traffic priorities or the efficiency with which enforcement agencies can process non-emergency case reports. There are a limited number of hours in the school calendar; time spent teaching pedestrian and traffic safety takes away from other educational objectives. County leaders must make these “political” choices to prioritize traffic safety and pedestrian safety commensurate with their human and fiscal impacts on society.
Goal 1: Improve transportation system infrastructure through the implementation of strategic countermeasures and construction of new transportation facilities to optimize the safety of all users.

Objective 1.01 Reduce the average distance between improved crossing locations along the County’s major roadway network; provide improved crossing facilities at transit shelters and high-volume transit stops and/or realign transit shelter/stop locations to improve safe pedestrian crossing.

Excluding downtown St. Petersburg, downtown Clearwater and Clearwater Beach, the average traffic signal spacing along the major roadway network exceeds 0.5 miles (Map 1.01). Based on experience with elevated pedestrian crossings, it is unlikely that more frequent improved crossing locations will result in pedestrians detouring more than a few hundred feet from their “crow-flies” path to reach a destination (Figure 1.01a). However, many pedestrian trips require travel along a major roadway as well as across it. In these cases, if more frequent signalization can be warranted, it will result in a greater likelihood that an improved crossing location is along the pedestrian’s travel path (Figure 1.01b). Where more frequent signalization is not warranted, above- and below-grade crossing should also be considered. As shown in the call-out box below, the FHWA Pedestrian.

Improved Crossing Locations
These are pedestrian crossing locations with enhanced features beyond the minimum standards intended to increase pedestrian safety at those crossings.

Major Roadway Network
Major roadways are a roadway classification that makes up the grid of higher volume/speed roadways encompassing the roadway system. These include freeways, multilane highways and other roadways that supplement the interstate system.

High-Volume Transit Stops
These transit stops serve a high volume of transit passengers (i.e. in excess of 50 passengers per day). Often these transit stops are located near pedestrian attractors such as shopping centers or colleges and/or service multiple intersecting transit routes.

Figure 1.01a: Illustration of Pedestrian Aversion to Crossing Detour

500 ft x 2
3.5 ft/second
= 285 seconds

Discount Store
Transit Shelter/Stop
Grocery Store

Most pedestrian traffic does not use nearby signalized crossing.
Mid-block crossing saves 5 minutes of delay:
Action Items:
- Inventory existing marked mid-block crossing locations and perform the following tasks:
  o Update the improved-crossing frequency data shown in Map 1.01 to include appropriately signed and/or signalized mid-block crosswalks.
  o Evaluate existing mid-block crosswalks; consider criteria such as the DRAFT revision of the FDOT Mid-Block Crossing Guidelines; enhance, remove, or relocate as appropriate.
  o Maintain/upgrade markings and advance warning signs/flashers as appropriate.
- Inventory the following prioritization factors:
  o Roadway segments with high mid-block crossing pedestrian crash frequencies,
  o Mid-block transit shelter locations or high-volume transit stops,
  o Mid-block pedestrian attractors such as shopping centers, parks, and high density residential developments,
  o Mid-block sidewalk termini,
  o Unmarked mid-block crosswalks, and
  o Multi-lane undivided roadway segments.
- Classify corridors based on MPO roadway cross-section, traffic volume data and available speed limit data to determine what type of traffic control is needed consistent with the pending revision of the FDOT Mid-Block Crossing Guidelines.
- Consider other approaches identified in the FHWA Pedestrian Safety Guide for Transit Agencies discussed in the call-out box to the right.

Figure 1.01b: Frequent Crossing Opportunities Benefit Trips along Roadway Corridors

The FHWA Pedestrian Safety Guide for Transit Agencies is intended to provide transit agency staff with an easy-to-use resource for improving pedestrian safety. The guide includes a variety of approaches to address common pedestrian safety issues that are likely to arise near transit stations, bus stops, and other places where transit (bus or rail) is operated. It provides references to publications, guides and other tools to identify pedestrian safety problems. Descriptions of engineering, education and enforcement programs that have been effectively applied by transit agencies are included as well as background information about pedestrian safety and access to transit.
Map 1.01
Pinellas County
Average Signal Spacing

Legend
- Signal Location
- Signal Spacing > 0.50 Mile
- Urban Areas
- Suburban Areas
- Major Roadways
- Pinellas County

Accuracy: It is intended that the accuracy of this map comply with U.S. national map accuracy standards. However, such accuracy is not guaranteed. This map is for illustrative purposes only.

Note: Signals within the St Petersburg and Clearwater CBD are omitted.
Source: State Road signal data is from the FDOT GIS database. Non-State Road signal data is from Pinellas County.

Average Signal Spacing (Miles)

<table>
<thead>
<tr>
<th></th>
<th>Urban</th>
<th>Suburban</th>
<th>Total</th>
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<tr>
<td>State Roads</td>
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<tr>
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Objective 1.02  Install raised medians or traffic control islands along major roadways, especially when regularly spaced improved crossing locations are not provided.

Daytime traffic volumes along the County’s major roadway network reduce the availability of adequate pedestrian crossing “gaps” in both travel directions. As such, many pedestrians make a two-stage crossing by seeking out a gap in approaching traffic and then pausing in the median until a gap becomes available in the opposing travel lanes. On roadways where the median is not raised, but is merely a two-way, left-turn lane, pedestrians are exposed to left-turning vehicles. On undivided roadways, the hazard is even more acute for obvious reasons. Map 1.02 shows elements of the Pinellas County major roadway network which are either multi-lane undivided roadways or roadways with a two-way, left-turn lane.

Converting two-way left turn lanes to fully restricted medians is often difficult because of impacts to business access and limited capacity for U-turn movements on 4-lane and 2-lane roadways. An alternative is to position evenly spaced “traffic control” islands (Figure 1.02) along a two-way left turn lane. While these islands are not designated as pedestrian crosswalks, they mitigate the threat of drivers prematurely entering (and then traveling along) a two-way left turn lane and provide shelter to pedestrians who may choose to cross adjacent to them. Care should be taken to avoid landscaping features which obscure drivers’ view of pedestrians in a median area and prohibit pedestrians from crossing islands.

Traffic Control Islands
Raised median with or without landscaping sited within a center turn lane. Distinguished from a mid-block pedestrian refuge island by the absence of a marked crosswalk and ADA compliant cut-through.

Figure 1.02: Traffic Control Island

Graphic: Google Earth Street View (8700 Block, Blind Pass Rd, R)
Action Items:

- Use Map 1.02 and other resources to identify undivided roadways and roadways with two-way left turn lanes.
- Inventory the following prioritization factors:
  - Roadway segments with high mid-block crossing pedestrian crash frequencies,
  - Mid-block transit shelter locations or high-volume transit stops,
  - Mid-block pedestrian attractors such as shopping centers, parks, and high density residential developments,
  - Mid-block sidewalk termini, and
  - Unmarked mid-block crosswalks.
- Review MPO existing and future traffic volume data and automobile crash data to identify multilane undivided roadway segments for potential road diet candidates. These roadways may exhibit some these characteristics:
  - Existing (and preferably future) annual average daily traffic (AADT) counts less than 24,000,
  - Automobile crash rate above 3.0 crashes per million vehicle miles of travel,
  - Narrow travel lanes (less than 11 ft wide), and
  - Operational/safety issues at signalized intersections where no left turn lane/phase is provided.
- Based on the prioritization criteria discussed above, perform traffic studies on candidate roadways and implement resulting recommendations:
  - Install raised median,
  - Install traffic control islands, or
  - No improvement feasible.
- In the event a detailed study recommends a no-build scenario, elevate the subject corridor with respect to other Goal 1 objectives.

Road (Lane) Diet

This technique in transportation planning reduces the number of travel lanes on a roadway and/or the effective width of the roadway in order to achieve systemic improvements like inclusion of a bicycle lane, two way left turn lane, and increased corner radii.

Pedestrian Crossing Conflicts and Pedestrian Exposure

Conflict points are locations where vehicles and pedestrians both interact. Most commonly, these include intersections and driveways.

Figure 1.03a: Large Intersection Pedestrian Exposure

Graphic: Google Earth
Objective 1.03  Reduce the average number of pedestrian crossing conflicts and pedestrian exposure at signalized intersections along the major roadway network.

Signalized intersections assign right of way to different traffic movements and therefore should be perceived as safer crossing points than un-signalized mid-block locations. However, most Florida intersections allow right-turn-on-red movements and many allow permissive left turn movements. These movements, along with right-turn-on-green movements are required to yield to through traffic and pedestrians in the intersection crosswalks. It is more often the case that pedestrians yield to turning automobiles. Major roadway intersections are also much wider than the approaching roadway segments because of auxiliary right and left turn lanes and wide corner radii designed to accommodate high speed right turns and heavy truck movements. Typical crossing distances across a six-lane roadway can exceed 150 feet resulting in over 40 seconds of pedestrian exposure (Figure 1.03a).

These conditions may contribute to pedestrian crashes at signalized intersections and also are likely to result in pedestrians avoiding signalized intersections with a consequent increase in mid-block crashes. Observation and review of pedestrian crash reports indicates that pedestrians will frequently choose to walk a few dozen feet away from a signalized intersection and cross through the standing queue rather than at the signal. This behavior, though perceived as safer by the pedestrian, may result in multiple threat crashes, especially if the through-movement queue lengths differ from auxiliary lane queues (Figure 1.03b).

Standing Queue
A group of vehicles or pedestrians waiting together or as group. Typically these occur at signalized intersections while drivers wait during the red indication.

Multiple Threat Crashes
It is a condition where the geometry, or other factors, creates more than one hazard for a pedestrian. These include crossing through a standing queue.

Figure 1.03b: Depiction of Multiple Threat Pedestrian Crash

Through-Movement Queues
This term refers to automobiles stopped at a traffic signal waiting to travel in the through-movement lanes of an intersection. Through-movement lanes are those lanes which permit straight travel through an intersection as opposed to turning movements. Pedestrians may cross through stopped traffic at a major intersection approach and can emerge into free-flowing turn lane or become trapped when traffic starts moving.

Auxiliary Lanes Queues
These are lanes provided for turning movements as opposed to through movement.
Action Items:

- Review existing signalized intersections for geometric improvement opportunities.
  - Prioritize review based on intersection or corridor pedestrian crash experience and intersection size (number of intersecting through lanes). Also, consider reviews concurrent with signal maintenance activity or ADA reviews.
  - Note sidewalk ramp configuration and deficiencies and ADA/accessibility issues.
  - Install left turn lane separator/median refuge islands as part of intersection reconstruction projects. Retrofit where feasible based on left turn separator width and truck turning radii requirements (Figure 1.03c).

- Install high-emphasis crosswalk markings at all approaches of collector or arterial roadway signalized intersections concurrent with roadway resurfacing or other intersection improvements. Consider installing high-emphasis crosswalks as a stand-alone project when the intersection is identified as a priority location based on pedestrian crash history or transit activity and no resurfacing or improvement project is programmed within five years.

- Complete installation of countdown pedestrian signals at collector or arterial roadway signalized intersections; where feasible set pedestrian signals to countdown concurrent with the coordinated main street phase.

Left-Turn Lane Separator/Median Refuge Islands

A median or refuge island is a raised longitudinal space separating the two main directions of traffic. Median islands, by definition, run one or many blocks. Refuge islands are much shorter than medians. Medians and refuge islands can be designed to block side-street or driveway crossings of the main road, as well as block left-turning movements. Because medians reduce turning movements, they can increase the flow rate (capacity) and safety of a roadway.

Figure 1.03c: Left-Turn Lane Separator/Median Refuge Island


High-Emphasis Crosswalk

Also called a special emphasis crosswalk, these crosswalks have pavement markings consisting of white two-foot wide bars with a one foot space in between intended to increase pedestrian crossing location conspicuity.

Countdown Pedestrian Signals

These signals are used at crosswalks to provide a display of the amount of time remaining for pedestrians to cross the street. Pedestrians use the information to make better decisions on when to start crossing and when to hasten already initiated crossing.
• When curb radii cannot be reduced due to traffic operational or heavy truck traffic history, construct/reconstruct intersection with appropriately designed (large then small radii) right turn channelization islands (Figure 1.03d). Consider opportunities to construct islands of sufficient size to accommodate traffic signal masts and crash attenuators. Determine whether pedestrian crossing from curb to island can function without signalization to reduce pedestrian crossing interval and improve intersection signal optimization.

• Evaluate traffic control options to reduce left and right turn movement pedestrian conflicts. Consider:
  o Protected-only left turn or lead/lag protected left turn (as may be appropriate and/or necessary based on opposing traffic volume and queue storage capacity);
  o Pedestrian actuated no-right-turn-on-red LED signs; or
  o Leading pedestrian interval and/or R10-15 “Turning Traffic Must Stop for Pedestrians in Crosswalk” signs.

**Right Turn Channelization Islands**

These islands are located between the through lanes and a right-turn only lane at an intersection. These islands offer refuge for pedestrians and can provide for signal pole placement, however if improperly designed they can create conflicts for pedestrians, especially when designed to facilitate high-speed right-turn movements.

**Protected-Only Left Turn**

Protected-only left turn signals allow vehicles to proceed during the display of the green left turn arrow only. No permissive green ball is displayed, therefore vehicles may not move during gaps in the opposing through traffic.

**Lead/Lag Protected Left-Turn**

A traffic signal phasing configuration where opposing left turns do not occur concurrently at the beginning of the cycle. It is used primarily to accommodate through movements in coordinated signal systems.

**No-Right-Turn-On-Red LED**

These signs are post-mounted, blank-out signs used to prohibit vehicular turning movements. These signs are applied at signalized intersections to reduce vehicle/pedestrian conflicts by prohibiting right turns across channelized right turns.

**Leading Pedestrian Interval**

A leading pedestrian interval (LPI) is a pedestrian safety measure used at roadway intersections with traffic signals. The term LPI refers to when the ‘walk’ signal appears three or more seconds before the green traffic signal. The ‘walk’ signal then remains active for the duration of the green signal. This brief timing adjustment allows pedestrians more time to cross the street, and increases their visibility to driv-
Objective 1.04  Provide enhanced street lighting along high pedestrian crash corridors, at marked crossing locations, and transit shelters and high-volume transit stops.

About 40% of Pinellas County pedestrian crashes occur at night compared with less than 25% of all motor vehicle crashes. While it is impractical to provide enhanced street lighting along the entire major roadway network, enhanced street lighting should be provided as per the action items below.

Action Items:
- Study/inventory lighting levels at signalized intersections and improved crossing locations; prioritize review based on pedestrian crash history or transit activity. Consider comprehensive signalized intersection lighting level inventory concurrent with periodic traffic signal preventative maintenance cycles.
- Provide enhanced street lighting at improved crossing locations including signalized intersections.
- Provide enhanced street lighting along roadway corridors with high pedestrian crash and/or nighttime pedestrian crash experience to illuminate the roadway area and pedestrian areas.
- Provide enhanced street lighting at high-volume transit stops.
- Consider strategies identified in the FHWA Informational Report on Lighting Design for Midblock Crosswalks.

Enhanced Street Lighting
Street lighting beyond the minimum standard intended to increase nighttime pedestrian safety.

The Informational Report on Lighting Design for Midblock Crosswalks provides information on lighting parameters and design criteria that should be considered when installing fixed roadway lighting for midblock crosswalks. The information is based on static and dynamic experiments of driver performance with regard to the detection of pedestrians and surrogates in midblock crosswalks. Experimental condition variables included lamp type, vertical illuminance level, color of pedestrian clothing, position of the pedestrians and surrogates in the crosswalk, and the presence of glare. Two additional lighting systems, a Probeam luminaire and ground-installed LEDs, were also evaluated. The research found that a vertical illuminance of 20 lx in the crosswalk, measured at a height of 1.5 m (5 ft) from the road surface, provided adequate detection distances in most circumstances. Although the research was constrained to midblock placements of crosswalks, the report includes a brief discussion of considerations in lighting crosswalks co-located with intersections.
Objective 1.05  Implement strategies to reduce travel speeds along urban collector and urban minor arterial roadways through geometric design and traffic signal coordination.

Pedestrian crash fatality rates increase significantly above 30 mph. While it is impractical to reduce travel speeds to 30 mph on all arterial and collector roadways, a general reduction in travel speeds allows drivers and pedestrians more time to react when a conflict occurs (Figure 1.05). Reduction in travel speeds also lessens the severity of automobile versus automobile crashes and enables the safe installation of un-signalized mid-block crossing features in a wider range of roadway settings.

While it is impractical (and unenforceable) to reduce speed limits arbitrarily, roadway “owner” agencies may elect to set a lower design speed when roadways are constructed/reconstructed. When geometric modifications are not able to reduce 85th percentile speeds, another approach to reduce travel speeds and, in some circumstances, improve roadway throughput, is to set traffic signal progression speeds to a speed lower than the maximum design speed of the road. This technique is most effective along local commuter corridors where drivers can “learn” the signal progression and/or when active “advisory speed” feedback is provided to drivers. Feedback can be provided through variable advisory speed limit signs, other Intelligent Transportation System (ITS) messaging devices or through signal spacing which is sufficiently close to allow drivers to anticipate downstream signal phases.

When close signal spacing is employed with reduced cycle lengths to enhance compliance with corridor progression speed, automobiles tend to pack into tighter platoons leaving more consistent gaps for mid-block pedestrian crossing activity (and automobile cross street through and turning movements). While overly short cycle lengths can increase left turn, angle and rear-end crash exposure for automobiles, overly long cycle lengths contribute to speeding and disregard of traffic signals by pedestrians and motorists.

85th Percentile Speeds
The 85th percentile speed concept is based on empirical research that shows, in the absence of a posted speed limit, that 85 percent of drivers would travel at or below the subject speed based on roadway and traffic conditions. As a rule, 85th percentile speed is used as the basis for setting speed limits in Florida.

Progression Speeds
Along signalized roadway corridors, signalized are timed such that a vehicle traveling at the “progression speed” will flow through multiple intersections without stopping. Though generally set to match the posted speed limit, traffic congestion, irregular signal spacing, and other factors may reduce progression speeds.

Variable Advisory Speed Limit Signs
These signs indicate speed limits which change with road congestion and other factors. These signs look to promote savings in journey times, smoother-flowing traffic, and a fall in the number of accidents.

Intelligent Transportation Systems (ITS)
ITS refers to efforts to add information and communications technology to transport infrastructure and vehicles in an effort to manage factors that typically are at odds
Action Items:

- Where feasible, design new and reconstructed urban collector and minor arterial roads for travel speeds below 45 mph.

- Along urban roadways with high pedestrian crash activity, consider opportunities to reduce travel speeds through signal progression.

- Identify existing intersection locations with moderate traffic volumes as candidates for “volume warrant” or “systems warrant” traffic signal installation to improve progression speed feedback.

- Consider positive and negative automobile safety impacts of signal installation and timing.

Cycle Lengths

A cycle length refers to the amount of time it takes for a complete sequence of a traffic signal indication: green-yellow-red.

Volume Warrant

Section 4C.01 of the Manual of Uniform Traffic Control Devices (MUTCD) lists eight warrants to establish the need for a traffic signal. Warrants #1 – 4 are based on vehicular or pedestrian volume. The other warrants include: #5 school crossing, #6 coordinated signal system, #7 crash experience (which reduces the volume criteria of Warrants 1 – 4), and #8 roadway network considerations. The satisfaction of one or more traffic signal warrants shall not in itself require the installation of a traffic control signal.

Systems Warrant

Basis for installing a traffic signal in order to promote progression along a corridor even when the subject intersection does not meet other (volume) warrants.
Objective 1.06  Provide high-quality continuous sidewalks within the urban service area in the following locations:

- Both sides of arterial roadways,
- One side of collector roadways (at a minimum),
- Both sides of collector roadways with fixed-route transit service,
- One side of high-volume local streets, and
- Both sides of roadways, whenever feasible.

Although most (approximately 75%) pedestrian crashes do not involve pedestrians walking along the road, sidewalks provide for pedestrian mobility, keep pedestrians off of the roadway shoulder, and enable pedestrians to walk comfortably along major roadways to improved crossing locations. As noted in the criteria above, sidewalks should be constructed along both sides of the roadway when that roadway serves as a transit route, even if it is only a collector road. This enables transit riders to walk along the sidewalk to an improved crossing location or “unmarked crosswalk.”

Action Items:

- Inventory sidewalks along the major roadway network and prioritize sidewalk construction based on the following criteria:
  - Gaps in existing sidewalk sections, especially resulting in sidewalk termini at unimproved crossing locations,
  - Roadway functional class,
  - Transit route and route ridership,
  - Pedestrian crash history and adjacent use, and
  - Prioritization criteria already established by the MPO, local governments, and FDOT.

High-Quality Continuous Sidewalks
Sidewalks that meet all ADA requirements, provide excellent traveling conditions, and do not end abruptly forcing street crossing at unsafe locations.

Urban Service Area
The urban service area is an area of a municipality where typical urban services are provided.

High-Volume Local Streets
Local streets with traffic volumes that exceed the traffic generated by the land uses along the street. For a single family neighborhood street, a volume in excess of ~1,200 daily trips would be considered “high volume.”
• Identify local streets with high traffic volumes (i.e. more than 1200 – 1500 trips per day) that lack sidewalks. These may be identified through:
  ○ Citizen complaints,
  ○ Collection of traffic volume data along local streets that
    • Intersect collector or arterial roadway facilities at signalized intersections
    • Provide a direct connection between two collector or arterial roadways

• Aggressively implement driveway/access management standards concurrent with roadway resurfacing projects and property development/redevelopment.

• Design driveways to look like driveways (Figure 1.06a) except when specific traffic operational conditions (high volumes, heavy truck volumes) dictate otherwise. Sidewalks should continue through the driveway, the level of the sidewalk should be maintained, and the driveway should be sloped so that the driver goes up and over the sidewalk.

• Along high crash corridors, mark crosswalks along the major roadway travel direction(s) to warn drivers entering or exiting the major roadway to expect/watch for pedestrians.

Figure 1.06a: Example of Preferred (top) and Discouraged (bottom) Driveway Designs

Graphic: FHWA PSAP Template

Pinellas County Pedestrian Safety Action Plan

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Goal 2: Change the “culture” of drivers and pedestrians to increase compliance with existing laws and encourage mutual respect and courtesy.

Objective 2.01 Improve the awareness of adult pedestrians and motorists about the legal rights and responsibilities of pedestrians.

Although all age groups are represented in the County’s pedestrian crash problem, adult men in their 40’s and 50’s are the most prominent demographic group (Figure 2.01). Education of adult pedestrians and drivers is best accomplished through mass media approaches including commercial television, posters, newspaper ads, billboards, radio, public access and brochures/pamphlets. Modern media including social networking websites can also be used with adults. Information should provide an understanding of existing laws and traffic citation fine structure, safe crossing practices for pedestrians, and appropriate yield behavior for drivers. Education material should also focus on improving nighttime conspicuousity and the dangers of walking while intoxicated.

Figure 2.01: Pedestrian Crash Pedestrian Age and Sex

<table>
<thead>
<tr>
<th>Age Distribution</th>
<th>Number of Crashes 2004 - 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5</td>
<td>100</td>
</tr>
<tr>
<td>5-13</td>
<td>150</td>
</tr>
<tr>
<td>14-18</td>
<td>200</td>
</tr>
<tr>
<td>19-25</td>
<td>250</td>
</tr>
<tr>
<td>26-40</td>
<td>300</td>
</tr>
<tr>
<td>41-55</td>
<td>350</td>
</tr>
<tr>
<td>&gt;55</td>
<td>400</td>
</tr>
</tbody>
</table>

Action Items:

- Focus on transit riders by implementing the following:
  - Pedestrian safety placards on buses and transit stops/shelters,
  - Pedestrian safety material on bus route maps and schedule books, and
  - Pedestrian safety crossing instruction announcements at bus stops.
- Utilize available federal or local funds to implement mass-media campaigns in conjunction with infrastructure projects. Use the “Walk Wise Pinellas” logo to brand pedestrian safety-related projects.
- Use a campaign to educate pedestrians that walking while intoxicated increases chances of being struck by an automobile.
- Distribute pedestrian safety information through public health providers (e.g., health department, hospitals, etc.) and in public buildings such as libraries, recreation centers, and other sites.
- Involve community groups in identifying pedestrian safety issues and education and infrastructure strategies.
- Use professional media consultants to direct pedestrian safety campaigns to specific demographic groups. Utilize all available media:
  - Websites (including social networking websites),
  - Billboards,
  - Radio,
  - Public access and commercial television,
  - Brochures/pamphlets and posters, and
  - Newspaper ads.
- Pursue 402 state safety grants and public health grants to support ongoing and enhanced adult traffic safety education efforts.
Objective 2.02  Ensure that younger generations of pedestrians and (future) drivers have an appropriate understanding of pedestrian and driver legal rights and responsibilities.

In order to promote long-term changes in pedestrian and driver behavior, education of new drivers with respect to traffic safety and pedestrian safety is critical. Continuation of existing primary school programs is a good start. However, more can be done in secondary schools to educate future drivers and adult pedestrians.

Action Items:

- Continue existing school-age education programs:
  - Bicycle and Pedestrian Safety course entitled “Safe Wheels and Safe Walkers” taught to Pinellas County first grade students by More Health Inc.,
  - Safe Routes to School related education outreach,
  - International Walk Your Child to School Day and Walk this Way program,
  - Include pedestrian safety education as part of primary school curriculum and secondary school/drivers education curriculum.

- Continue existing traffic safety events/programs:
  - Include traffic safety (including pedestrian safety from the perspective of drivers and pedestrians) in high school Health and Safety course curriculum;
  - Ensure that pedestrian safety is a prominent component of driver’s education curriculum; and
  - Utilize modern media (social networking websites and other internet resources) to educate secondary school children and provide a forum for teenagers to discuss traffic behavior and issues.

- Pursue 402 safety grants, Safe Routes to School grants, and public health grants to support ongoing and enhanced school traffic safety education efforts.

About International Walk to School Day and Month

It began as an idea

In 1997, the Partnership for a Walkable America sponsored the first National Walk Our Children to School Day in Chicago, modeled after the United Kingdom’s lead. Back then, it was simply a day to bring community leaders and children together to create awareness of the need for communities to be walkable.

It evolved into a movement

By the year 2002, children, parents, teachers and community leaders in all 50 states joined nearly 3 million walkers around the world to celebrate the second annual International Walk to School Day. The reasons for walking grew just as quickly as the event itself.

Whether your concern is safer and improved streets, healthier habits, or cleaner air, Walk to School Day events are aimed at bringing forth permanent change to encourage a more walkable America — one community at a time.

Now it’s a priority

In 2005, new legislation recognized the value of Safe Routes to School programs and is providing funding for States to establish programs. Politicians and other government officials are paying attention to the importance of safe walking and biking to school. Obesity, concern for the environment and the effects of urban sprawl on communities has led to the joining of efforts among those that care about these and other related issues like school siting and traffic congestion.

http://www.walktoschool-usa.org/about/index.cfm
**Objective 2.03** Enhance enforcement of pedestrian traffic laws.

While enforcement alone cannot sustain appropriate driver and pedestrian behavior, enforcement activity can help support education and engineering efforts, especially when these efforts closely follow infrastructure improvement.

**Action Items:**

- Employ “roll-call” videos or other supplemental training to ensure that law enforcement officers are familiar with laws governing pedestrian-automobile interaction, especially laws related to unmarked crosswalks.
- Utilize available MPO crash data to efficiently deploy available enforcement resources.
- Provide law enforcement officers with pedestrian safety education materials to distribute along with warnings or citations.
- Coordinate pedestrian enforcement activities with overall neighborhood policing/relationship-building efforts.
- Utilize available federal or local funds to provide enhanced law enforcement activities in conjunction with pedestrian safety projects.
- Incorporate the T² Pedestrian/Bicycle Law Enforcement Training Program into local agency law enforcement curriculum.

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**New Jersey Governor’s Pedestrian Safety Initiative:**

In September 2006 Governor Jon Corzine announced an unprecedented **five-year, $74 million program to reduce pedestrian risks** throughout the state by combining infrastructure improvements with enforcement and educational strategies. Resources are being targeted to areas of greatest need, based on improved data management systems that allow the state to monitor and map statewide pedestrian safety patterns.

A key element of the initiative is the Pedestrian Safety Corridor program, which targets selected corridors with a history of pedestrian safety problems for investigation and improvement. This program was modeled in part on an existing Safe Corridors program enacted in New Jersey in 2003, which couples intensive enforcement with engineering countermeasures for highway segments with high motor vehicle crash rates. The program design also drew on the experience of other states with corridor-based pedestrian safety programs, as well as federal guidance on zone-based approaches to pedestrian safety (Zone Guide for Pedestrian Safety, NHTSA/FHWA, 1998).

**Other aspects of the program include:**

- Pedestrian Safety Improvement Projects
- Pedestrian Law Enforcement
- Safe Routes to School
- Improved Driver Education
- Safe Streets to Transit Program
- Risk Prevention Through Pedestrian Planning

One early success is a significant increase in interagency coordination to address pedestrian safety as a shared problem. For example, NJDOT and NJ Transit are working together to expedite priority pedestrian improvements in the vicinity of bus stops on the pedestrian safety corridors.

**Roll Call Videos**

Informational videos played at the beginning of the day to educate police officers on the activities for the day.

**T² Pedestrian/Bicycle Law Enforcement Training Program**

This course educates law enforcement officers on Florida's pedestrian and bicycle laws and trains them in the methods to educate motorist’s using traffic enforcement operations. Target audience is law enforcement and bicycle/pedestrian coordinators.
Goal 3: Manage competing objectives of efficient automobile travel and pedestrian safety and mobility through land use strategies.

Objective 3.01 Increase the non-automobile (i.e., walking, biking, and transit) mode share through pedestrian and transit oriented development and redevelopment.

Presently, many local agencies are implementing elements of transit oriented or traditional neighborhood design within their comprehensive plans and elements of their land development code. The action items included with this objective are by no means a comprehensive set of land development recommendations, but serve to highlight key points which can lead to a more pedestrian oriented built environment.

Action Items:
- Require shared driveways and/or cross-access provisions to reduce sidewalk conflict points.
- Identify mixed-use redevelopment corridors and require or encourage buildings to be oriented to pedestrian access. Non-residential buildings should be no more than 15 feet from the sidewalk such that the buildings are sited close to the street and parking is in the rear.
- Consider land development code landscaping requirements to plant shade trees along right-of-way (consistent with clear zone requirements).
- Implement land development code policies to enable developers to contribute towards pedestrian infrastructure, especially when roadway improvements are not feasible or not cost effective.

Through the Livable Communities Task Force, the Pinellas MPO has developed a set of model comprehensive plan policies and land development codes designed to implement livable community features in the design and construction of streetscape improvements and land development projects.
• Allow/encourage high-density, mixed use developments along major commercial corridors and/or mass transit corridors.
  ○ Consider density/intensity bonuses for combination residential/office or residential/commercial development.
  ○ Consider reduced parking requirements for mixed-use development and/or replace minimum parking requirements with maximum parking requirements.
  ○ Consider implementation of form-based zoning codes in areas or along corridors to require/support pedestrian and transit oriented development.
  ○ Establish multimodal transportation districts or concurrency exception areas where existing or planned density and diversity of land use can support alternative modes of travel. Evaluate strategies to implement recent State legislation (SB 360) which enables Pinellas County and the municipalities therein to waive transportation concurrency requirements and instead requires local agencies to develop mobility strategies which consider land use and alternative modes.

• Continue initiatives to improve mass transit to provide for travel between major residential, retail, and employment nodes thereby allowing transportation infrastructure decisions to focus less on maintaining capacity and focus more on addressing safety for all users.

Form-Based Zoning
Form-based codes address the relationship between building facades and the public realm, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks. The regulations and standards in Form-based codes, presented in both diagrams and words, are keyed to a regulating plan that designates the appropriate form and scale (and therefore, character) of development rather than only distinctions in land-use types.
http://www.formbasedcodes.org/definition.html

SB 360
Senate Bill 360 (2009) aka “Community Renewal Act” designates Pinellas and Hillsborough Counties (among others) as “Dense Urban Land Areas” eligible for exemption from transportation concurrency. Although the legislation raises growth management issues, the relaxation of concurrency reduces external pressures on local governments to widen roads in response to growth.

Transportation Concurrency
State of Florida requirement that transportation infrastructure necessary to maintain adopted level of service standards be in place (or programmed in local government capital improvement elements) concurrent with issuance of permits for development.
Objective 3.02 Improve pedestrian safety in parking lots.

Approximately 22% of Pinellas County pedestrian crashes occur in parking lots. While these crashes account for only 12% of fatal and incapacitating injuries (Figure 3.02a), parking lot crashes must nonetheless be a focus of the PSAP. For obvious reasons, the level of pedestrian and automobile interaction/exposure in parking lots is high. Design measures, however, can be undertaken to improve pedestrian safety. In addition to situating buildings close to roadways with parking in the rear, as discussed in Objective 3.01, improved parking lot design can reduce pedestrian/automobile conflicts.

Figure 3.02a: Pinellas County 2003-2007 Pedestrian Crash Location Distribution

<table>
<thead>
<tr>
<th>Roadway Type</th>
<th>Number of Pedestrian Crashes</th>
<th>Percent of Total</th>
<th>Number of Fatal and Incapacitating Crashes</th>
<th>Percent of Fatal and Incapacitating Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Lot</td>
<td>453</td>
<td>22%</td>
<td>79</td>
<td>12%</td>
</tr>
<tr>
<td>Major Road</td>
<td>1,235</td>
<td>59%</td>
<td>458</td>
<td>72%</td>
</tr>
<tr>
<td>Local Road</td>
<td>197</td>
<td>9%</td>
<td>55</td>
<td>9%</td>
</tr>
<tr>
<td>Unknown</td>
<td>197</td>
<td>9%</td>
<td>42</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td>2,082</td>
<td>100%</td>
<td>634</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 3.02b: Parking Lot Pedestrian Design Elements

Pedestrian Friendly Parking Lot Design Elements (Citrus Park Mall, FL)
- Parking rows oriented parallel to storefront, rows not accessed from storefront drive—reduces automobile volume and turning movements where pedestrian activity is most intense
- Pronounced storefront crosswalk feature
- Landscaped pedestrian walkways collect pedestrians from parking area and funnel them to the front door

Undesirable Parking Lot Design Elements (Waters Avenue Target Shopping Center, FL)
- Parking rows oriented perpendicular to storefront, rows accessed from storefront drive—increases automobile volume and turning movements where pedestrian activity is most intense
- Minimal storefront crosswalk features
- No pedestrian walkways to collect pedestrians from parking area and funnel them to the front door

Figure 3.02c: Parking Lot Pedestrian Design Elements

Graphic: Shape Sioux Falls Parking Policy - http://www.siouxfalls.org/Planning/ssf/dev_policies/parking

Graphic: Google Earth, Hillsborough County, Florida
Action Items:

- Review current land development codes and determine whether pedestrian safety in parking lots and garages is adequately considered. Principal concerns include the following items:
  - Sidewalks/walkways connecting buildings to adjacent roads/public sidewalks,
  - Clearly designated pedestrian walkways to collect pedestrians in parking lots and garages and funnel them to their destination, and
  - Minimize use of area between storefronts and parking lanes (Figures 3.03b and c) for distribution and cross access.
  - Use appropriate treatments (e.g., crosswalks, signage, speed bumps, etc.) to enhance pedestrian safety in these high-traffic areas.

- Make necessary revisions to land development codes as discussed above.
  - Consider reducing required parking space requirements when necessary to implement measures to safely accommodate pedestrians.
  - When sites change use, are developed, or redeveloped, include pedestrian accommodation in parking lots in the site traffic impact review procedures or other standard development review process.

- Consider establishing a grant program to help businesses retrofit parking lot areas.
Goal 4: Coordinate 4E activities with the full support of elected and appointed leaders.

Objective 4.01 Fund 10-year pedestrian safety/mobility capital projects plan consistent with Goal 1 infrastructure priorities.

Improving pedestrian infrastructure, especially when not done as part of a roadway capacity or resurfacing project, can be costly. Representative costs for the infrastructure improvements discussed in Goal 1 are provided below.

- Construction of improved pedestrian crossings (complete with advanced warning signs and solar flashers, crosswalk pavement markings, and street lighting enhancements) can cost $10,000 to $25,000; signalized and semi-signalized crossings can cost up to $50,000—more if full mast arms are required.
- Traffic control islands/pedestrian crossing islands can cost from $5,000 to $30,000.
- Installation of raised medians and major intersection geometric improvements can cost several hundred thousand dollars or more if right-of-way acquisition is required.

As shown in Map 4.01, between 6% and 10% of Pinellas County crashes occur in the St. Petersburg and Clearwater downtown areas. Of the remainder, over 40% of all pedestrian crashes occur along less than 5% percent of the County’s major roadway network. This represents less than 100 miles of roadways and about 200 signalized intersections.

This order of magnitude of improvements could total $25 to $30 million—more than double FDOT District 7’s annual district-wide Highway Safety Program (HSP) federal funding allocation. Though substantial, a $25 to $30 million, 10-year pedestrian safety capital improvement would be just over 3% of the County’s approximately $80 million transportation capital infrastructure budget and is equivalent to the cost of adding one travel lane in each direction to 5 to 6 miles of urban roadway according to FDOT’s latest cost estimates (assuming no right-of-way costs).

**Example unit costs and quantities to implement PSAP capital improvements:**

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Estimated Unit Cost</th>
<th>Units</th>
<th>Quantity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Crossing</td>
<td>$25,000</td>
<td>Crossing</td>
<td>200</td>
<td>$5,000,000</td>
</tr>
<tr>
<td>Major Intersection Improvement</td>
<td>$250,000</td>
<td>Intersection</td>
<td>50</td>
<td>$12,500,000</td>
</tr>
<tr>
<td>Lighting</td>
<td>$400,000</td>
<td>Mile</td>
<td>20</td>
<td>$8,000,000</td>
</tr>
<tr>
<td>Traffic Control Island</td>
<td>$10,000</td>
<td>Crossing</td>
<td>150</td>
<td>$1,500,000</td>
</tr>
</tbody>
</table>
**Action Items:**

- Include pedestrian safety as part of MPO planning process:
  - Explicitly consider pedestrian safety benefits as part of the Congestion Management System project selection criteria and other flexible fund project development and prioritization.
  - Consider pedestrian safety enhancements as part of Long Range Transportation Plan (LRTP) project development and prioritization.

- Identify and allocate available funding streams for pedestrian safety infrastructure improvements.
  - Establish annual “set aside” from FDOT controlled federal safety funds (recommend $1 million per year).
  - Establish annual “set aside” from MPO and local agency flexible funds to match FDOT/HSP funding.

- Based on the County’s pedestrian crash experience (60% of all pedestrian crashes and over 70% of fatal and incapacitating injury pedestrian crashes occur along the major roadway network), consider redirecting components of local street sidewalk and neighborhood traffic calming annual budgets and staff/consultant resources to pedestrian safety infrastructure action items identified in Goal 1.

- Utilize the Bicycle/Pedestrian Coordinator position within the MPO to coordinate activities, monitor progress, and aggressively pursue federal and state grant funding for education and enforcement activities. Evaluate workload in context of existing responsibilities and consider supplemental staffing as necessary.

- Identify pedestrian safety “czars” within each transportation infrastructure agency and key education and enforcement agencies (i.e. Pinellas County Public Works, Municipal Public Works, Florida DOT, Pinellas County Sheriff, School Board of Pinellas County) and coordinate pedestrian safety activities as part of the Pedestrian Technical Advisory Committee or a sub-committee to the Pinellas County Community Traffic Safety Team (CTST).

**Long Range Transportation Plan (LRTP)**

Produced by the MPO, the Long Range Transportation Plan is a long-range (20+year) strategy and capital improvement program developed to guide the effective investment of public funds in multi-modal transportation facilities.

**Community Traffic Safety Team (CTST)**

Florida’s Community Traffic Safety Teams (CTSTs) are locally based groups of highway safety advocates who are committed to solving traffic safety problems through a comprehensive, multi-jurisdictional, multi-disciplinary approach. Members include local city, county, state, and occasionally federal agencies, as well as private industry representatives and local citizens.

**Flexible Funds**

The Federal Transportation Funding Bill (SAFETEA-LU) Allows up to 10% of Highway Safety Program funds to be spent on non-infrastructure projects under certain circumstances.
Map 4.01
Pinellas County
40% Roadways

Legend
- 40% Roadways
- 40% Roadway Pedestrian Crashes
- Major Roadways
- Pedestrian Crashes
- Local Roadways
- CBG's
- Pinellas County

Accuracy: It is intended that the accuracy of this map comply with O.S. rational map accuracy standards. However, while accuracy is not guaranteed.
This map is for illustrative purposes only.

40% Roadways
State Roads vs. Non-State Roads
Roadway Mileage and Number of Signals

<table>
<thead>
<tr>
<th>Roadway</th>
<th>Major Roadway Miles (Centerline)</th>
<th>% of Total Major Roadway Network</th>
<th># of Signalized Intersections</th>
<th>% of Total Signalized Intersections</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Roads</td>
<td>71</td>
<td>77%</td>
<td>185</td>
<td>84%</td>
</tr>
<tr>
<td>Non-State Roads</td>
<td>21</td>
<td>23%</td>
<td>36</td>
<td>16%</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100%</td>
<td>221</td>
<td>100%</td>
</tr>
</tbody>
</table>

File: Map_4_01P_PedCrashes.md

Pinellas County Pedestrian Safety Action Plan
Objective 4.02 Identify and take advantage of intra-agency and inter-agency opportunities for coordination; remove organizational barriers.

Public works improvements provide a permanent, public focal point for the implementation of the PSAP—but are only part of the solution. To capture the maximum value of education, enforcement, and engineering efforts, all three activities should be coordinated. Agencies must also make pedestrian safety part of their everyday business plans. Stand-alone capital improvements, education and enforcement activity are costly and limited resources are available.

Action Items:
- Conduct pedestrian safety audits prior to scoping roadway capacity and resurfacing projects along corridors with pedestrian crash concentrations or along transit routes; incorporate audit recommendations in design scopes; implement pedestrian safety improvements as warranted.

- Coordinate education and enforcement activities with corridor infrastructure improvements. As capital improvements are under construction at an intersection or along a roadway corridor, pedestrian safety information should be provided to transit route riders, local businesses, area residents, and drivers (via portable variable message signs or billboards) prior to installation of the pedestrian safety infrastructure. Upon project completion, law enforcement should be deployed to issue warnings/citations to help ensure driver and pedestrian compliance with traffic safety laws.

- The Pinellas MPO should continue to support law enforcement, engineering, and education agencies with timely, accurate pedestrian crash data in order to effectively deploy available resources.

- Coordinate with land development activities to implement public right-of-way and private property pedestrian safety/mobility enhancements.
  - Review site-plans for pedestrian safety issues—especially parking lot plans and pedestrian site access accommodation
  - Review comprehensive plan amendments for opportunities to enhance pedestrian safety/mitigate automobile/pedestrian conflicts.

- Fully utilize FHWA “Flexible Fund” allowances to fund education and enforcement activities as part of pedestrian safety infrastructure projects.

- Agency directors should review departmental and division performance measures and standard operating procedures to ensure that internal policies do not create “roadblocks” to implementing pedestrian safety 4E initiatives.
  - Consider whether resurfacing/rehabilitation programs provide sufficient opportunities to improve traffic safety—especially pedestrian safety.
  - Consider whether law enforcement performance measures reward officers not specifically assigned to traffic enforcement for conducting traffic safety stops.
  - Identify pedestrian safety improvement needs so that appropriate coordination can be undertaken within the land development review process.
  - Coordinate with traffic court judges and hearing officers to ensure that contested pedestrian safety-related traffic citations will be upheld to the same degree as other citations.
• Coordinate pedestrian safety infrastructure, education and enforcement activities with transit infrastructure.
  ○ In addition to prioritizing pedestrian crossing infrastructure improvements based on the location of existing transit shelters and higher volume transit stops, PSTA should coordinate with the roadway maintaining agency to evaluate whether a mid-block improved crossing can be installed at the transit shelter.
    ◆ If a crossing is not feasible, PSTA should consider shifting the location of the planned shelter to a spot where an improved crossing can be installed, or, at a minimum, to a location where either a raised median or traffic control island is available to improve opportunities for safe crossing.
    ◆ If an improved crossing is feasible, pedestrian safety information should be provided to transit route riders, local businesses, area residents, and drivers (via portable variable message signs) prior to installation of the improved crossing infrastructure. Once operational, law enforcement should be deployed to issue warnings/citations to help ensure driver and pedestrian compliance with traffic safety laws at the new crosswalk location.
  ○ If a roadway capacity or resurfacing project is planned along a transit route, the roadway maintaining agency should coordinate with PSTA to identify necessary and appropriate transit shelter access and crossing safety improvements.
  ○ If additional crossing conflicts are being created adjacent to transit stops (i.e., addition of through lanes or auxiliary lanes), the roadway maintaining agency should coordinate with PSTA to either provide improved crossing infrastructure, relocate impacted stops to safer locations, or re-align stops along the impacted corridor to optimize access and crossing safety.
  ○ Consider opportunities to use signalized and semi-signalized mid-block crossings in conjunction with transit vehicle bays to provide safe crossing opportunities and secure transit vehicles’ reentry into the traffic stream.
Objective 4.03  Keep PSAP relevant and updated.

The Pedestrian Safety Action Plan includes long-term strategies and must remain in the focus of County leadership. Increased efforts to educate primary and secondary school children, implementation of land development policies to reduce automobile dependence and improve the pedestrian environment, and roadway design approaches to retrofit and reconstruct roadways consistent with the safety needs of pedestrians will occur over decades and are not likely to result in immediate “pay-offs.” Individuals within the many agencies responsible for implementing the Plan must step forward and be accountable for their individual contributions to help ensure progress is made over time. An accountability table has been included in Appendix H.

As the Plan is implemented, another certainty is change. Change in the nature of the pedestrian crash patterns, change in funding availability, and change in elected and appointed leaders are all inevitable over the coming years. To remain relevant, the PSAP must be updated to respond to changing facts while still maintaining the core principals of a coordinated multi-disciplinary approach.

Action Items:
- Evaluate success of individual objectives and action items on an annual basis; keep what works, modify or discard unproductive action items.
- Establish a Community Traffic Safety Team (CTST) sub-committee to monitor and promote the implementation of the PSAP.
- Provide quarterly updates to the MPO Pedestrian Technical Advisory Committee and annual updates to the MPO Board.
- Evaluate countywide pedestrian crash experience including crash locations and attributes. Compare to baseline data and analysis.
- Revise and update the PSAP as necessary/appropriate; recommend comprehensive updates prior to and in sequence with Pinellas MPO LRTPs.
- Establish department/division-specific accountability for measurable PSAP action items (e.g., intersections improved, mid-block crossings installed, school workshops held, warnings and citations issued).
APPENDIX A: Existing Conditions Inventory/PSAP Template
## Existing Practice/Policy Details

- **Infrastructure:**
  - Do you have existing street lighting policies? Yes/No
  - Are you currently using existing lighting to identify system gaps and unsafe conditions? Yes/No
  - Do you have clearly articulated objectives that can be accomplished by reducing crashes and encouraging walking? Yes/No

- **Data Collection:**
  - If you use crash data, do you currently have a complete database of crash information? Yes/No
  - Are you using crash data to generate countermeasures? Yes/No
  - Do you have clearly stated goals for reducing pedestrian crashes and increasing the number of pedestrian trips? Yes/No

- **Pedestrian Counts:**
  - Do you have pedestrian counts? Yes/No
  - Do you have clearly articulated objectives that can be accomplished by reducing crashes and encouraging walking? Yes/No

- **Implementation:**
  - Do you have a plan for implementing countermeasures that are effective in reducing pedestrian crashes? Yes/No
  - Do you have a plan for ensuring that countermeasures are effective in reducing pedestrian crashes? Yes/No

- **Evaluation:**
  - Do you have a plan for evaluating the effectiveness of countermeasures? Yes/No
  - Do you have a plan for ensuring that countermeasures are effective in reducing pedestrian crashes? Yes/No

### Table: FDOT District 7

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Mixed</th>
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<tbody>
<tr>
<td>Do you have existing street lighting policies?</td>
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<td>Are you currently using existing lighting to identify system gaps and unsafe conditions?</td>
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<td>Are you using crash data to generate countermeasures?</td>
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<tr>
<td>Do you have clearly stated goals for reducing pedestrian crashes and increasing the number of pedestrian trips?</td>
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<tr>
<td>Do you have pedestrian counts?</td>
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<td>Do you have clearly articulated objectives that can be accomplished by reducing crashes and encouraging walking?</td>
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<td>Do you have a plan for implementing countermeasures that are effective in reducing pedestrian crashes?</td>
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<td>Question</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>1. Do you have an inventory of all pedestrian-related programs and projects?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
</tr>
<tr>
<td>2. State existing pedestrian-related programs and projects (include scope, budget, and products)</td>
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<tr>
<td>3. Do you have a separate pedestrian safety priority list?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>4. State existing pedestrian safety priority list</td>
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<tr>
<td>5. Do you have a separate pedestrian safety committee?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>6. State existing pedestrian safety committee</td>
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<tr>
<td>7. Do you have a pedestrian safety plan?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>8. State pedestrian safety plan</td>
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<tr>
<td>9. Do you have pedestrian safety projects in your capital improvement program?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>10. State pedestrian safety projects</td>
<td></td>
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<tr>
<td>11. Do you have pedestrian safety in your funding plan?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>12. State pedestrian safety in funding plan</td>
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<tr>
<td>13. Do you have a pedestrian safety element in your LRTP?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>14. State pedestrian safety element in LRTP</td>
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<tr>
<td>15. Do you have pedestrian safety in your Strategic Highway Safety Plan?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>16. State pedestrian safety in Strategic Highway Safety Plan</td>
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<td></td>
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<tr>
<td>17. Do you have a pedestrian safety task force?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>18. State pedestrian safety task force</td>
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<tr>
<td>19. Do you have pedestrian safety as a program goal?</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>20. State pedestrian safety as a program goal</td>
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<tr>
<td>21. Do you have pedestrian safety for development code and land use regulations?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>22. State pedestrian safety for development code and land use regulations</td>
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<tr>
<td>23. Do you have pedestrian safety in grading or drainage?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>24. State pedestrian safety in grading or drainage</td>
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<tr>
<td>25. Do you have pedestrian safety in all streets or only in territories?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>26. State pedestrian safety in all streets or only in territories</td>
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<tr>
<td>27. Do you have pedestrian safety in local streets?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>28. State pedestrian safety in local streets</td>
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<tr>
<td>29. Do you have pedestrian safety for roadway design?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>30. State pedestrian safety for roadway design</td>
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<tr>
<td>31. Do you have pedestrian safety for roadway engineering?</td>
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<td>32. State pedestrian safety for roadway engineering</td>
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<td>33. Do you have pedestrian safety for roadway maintenance?</td>
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<td>34. State pedestrian safety for roadway maintenance</td>
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<td>35. Do you have pedestrian safety for roadway projects?</td>
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<td>36. State pedestrian safety for roadway projects</td>
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<tr>
<td>37. Do you have pedestrian safety for roadway operations?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<td>38. State pedestrian safety for roadway operations</td>
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<tr>
<td>39. Do you have pedestrian safety for roadway programs?</td>
<td>Yes</td>
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<td>40. State pedestrian safety for roadway programs</td>
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<td>41. Do you have pedestrian safety for roadway policies?</td>
<td>Yes</td>
<td>No</td>
<td>Not applicable</td>
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<tr>
<td>42. State pedestrian safety for roadway policies</td>
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</tbody>
</table>
**Phila County Pedestrian Safety Action Plan - Existing Conditions Questionaire Responses**

### Existing Practice/Policy Details:

**Pinellas MPO**

- **Are another popular request.**
  - **warns against the overuse of signals for a variety of reasons.**
  - **should only be installed where there is an expectation of a**
  - **should not be used. Consider use of speed tables (not humps) instead.**
  - **reduce crashes substantially at uncontrolled locations,**
  - **MUTCD**
  - **FDOT District 7**

**City of Clearwater**

- **slow vehicles**
  - **Curb extensions**
  - Ø **If yes, please state your policy:**
  - Ø **Do you routinely install crosswalks to**
  - Ø **crosswalk visability as it relates to volume requirement.**
  - Ø **Yes. St Petersburg standard is high visability thermal crosswalk. This**
  - Ø **unsignalized marked crossings, have high visibilty markings,**
  - Ø **At intersections or pedestrian crossings where there are high pedestrian volumes,**
  - Ø **On-street parking is not typical on County roads. Curb extensions**

**Table Showing Policy Details**

<table>
<thead>
<tr>
<th>Policy Details</th>
<th>City of Clearwater</th>
<th>Pinellas MPO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Traffic Signals:</strong></td>
<td>Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No</td>
<td>Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No</td>
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<td></td>
<td>Yes / No</td>
<td>Yes / No</td>
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<td></td>
<td>Ø If yes, please state your policy.</td>
<td>Ø If yes, please state your policy.</td>
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<td></td>
<td>Ø Do you install traffic signals based on anticipated pedestrian volumes?</td>
<td>Ø Do you install traffic signals based on anticipated pedestrian volumes?</td>
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<tr>
<td></td>
<td>No. Case by case basis. 34th Street at Gibbs H.S./Pinellas Trail is a</td>
<td>No. Case by case basis. 34th Street at Gibbs H.S./Pinellas Trail is a</td>
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<tr>
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<td>recent example.</td>
<td>recent example.</td>
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<td>Ø Do you install traffic signals based on anticipated pedestrian volumes?</td>
<td>Ø Do you install traffic signals based on anticipated pedestrian volumes?</td>
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<td></td>
<td>No. Must meet warrant of 107 pedestrians during a 4 hour period.</td>
<td>No. Must meet warrant of 107 pedestrians during a 4 hour period.</td>
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<td>Ø Do you install traffic signals based on anticipated pedestrian volumes?</td>
<td>Ø Do you install traffic signals based on anticipated pedestrian volumes?</td>
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<td></td>
<td>No. Done because of development related projects such as I-275,</td>
<td>No. Done because of development related projects such as I-275,</td>
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<td>and other road improvements.</td>
<td>and other road improvements.</td>
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<td>Ø Do you install traffic signals based on anticipated pedestrian volumes?</td>
<td>Ø Do you install traffic signals based on anticipated pedestrian volumes?</td>
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<td></td>
<td>No. Would have to be a very strong case.</td>
<td>No. Would have to be a very strong case.</td>
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<tr>
<td><strong>B. Over or Under-Crossings:</strong></td>
<td>Ø If yes, please state your policy.</td>
<td>Ø If yes, please state your policy.</td>
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<tr>
<td></td>
<td>Ø Do you routinely provide illumination at primary crossing points? Yes / No</td>
<td>Ø Do you routinely provide illumination at primary crossing points? Yes / No</td>
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<td></td>
<td>Yes / No</td>
<td>Yes / No</td>
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<tr>
<td><strong>C. Crosswalks:</strong></td>
<td>Ø Do you routinely provide curb extensions at identified crossing points? Yes / No</td>
<td>Ø Do you routinely provide curb extensions at identified crossing points? Yes / No</td>
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<td></td>
<td>Yes / No</td>
<td>Yes / No</td>
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<td>Ø If yes, please state your policy.</td>
<td>Ø If yes, please state your policy.</td>
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<td></td>
<td>Ø Do you routinely install crosswalks to</td>
<td>Ø Do you routinely install crosswalks to</td>
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<td>increased pedestrian and vehicle safety</td>
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<td>Ø If yes, please state your policy.</td>
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<td>Ø If yes, please state your policy.</td>
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</tbody>
</table>

**Study Observations**

- **The study also made the following observations:**
  - **Amphitheater Pedestrian Safety & Efficiency, 2006 Policy, Title 9.3, Table 5:**
  - **The City shall adopt the installation of pedestrian and street lighting along many**
  - **based in a Park Board Special Project.**

**III-10.**

- **D. Pedestrian Lighting:**
  - Ø Do you routinely provide illumination at primary crossing points? Yes / No
  - Ø Do you routinely provide curb extensions at identified crossing points? Yes / No

**III-11.**

- **E. Overcrossings:**
  - Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No
  - Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No
  - Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No
  - Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No

**III-12.**

- **F. Pedestrian Visibility:**
  - Ø Do you provide curb extensions at identified crossing points? Yes / No
  - Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No

**3. Popular Crossing Countermeasures & how to improve them**

- Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No

**IV. Existing Conditions**

- Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No

**V. Existing Practices/Policy Details**

- Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No

**VI. Existing Conditions**

- Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No

**VII. Existing Conditions**

- Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No

**VIII. Existing Conditions**

- Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No

**IX. Existing Conditions**

- Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No
<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Mixed</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are there existing practices related to pedestrian safety and traffic calming? Yes</td>
<td>No</td>
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<tr>
<td>2. If yes, please state your policy.</td>
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<tr>
<td>3. Does the policy/written procedure meet the Florida FDOT Transportation design guidelines and Florida MUTCD for crosswalks?</td>
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<tr>
<td>4. Does the policy/written procedure meet the Florida FDOT Transportation design guidelines and Florida MUTCD for pedestrian ramps?</td>
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<tr>
<td>5. Are there existing practices related to pedestrian signalization? Yes</td>
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<td>6. If yes, please state your policy.</td>
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<td>7. Are there existing practices related to pedestrian visibility? Yes</td>
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<td>8. If yes, please state your policy.</td>
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<tr>
<td>9. Are there practices related to pedestrian signal enforcement? Yes</td>
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<td>10. If yes, please state your policy.</td>
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<tr>
<td>11. Are there practices related to pedestrian access to public transit? Yes</td>
<td>No</td>
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<tr>
<td>12. If yes, please state your policy.</td>
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<tr>
<td>13. Are there practices related to pedestrian protection and countermeasures? Yes</td>
<td>No</td>
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<td>14. If yes, please state your policy.</td>
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<tr>
<td>15. Are there practices related to pedestrian crash beneficial treatments? Yes</td>
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<td>16. If yes, please state your policy.</td>
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<tr>
<td>17. Are there existing practices related to pedestrian safety and traffic calming and controlled intersections? Yes</td>
<td>No</td>
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<tr>
<td>18. If yes, please state your policy.</td>
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<tr>
<td>19. Are there existing practices related to pedestrian safety and traffic calming and uncontrolled intersections? Yes</td>
<td>No</td>
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<td>20. If yes, please state your policy.</td>
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<tr>
<td>21. Are there practices related to pedestrian safety and traffic calming and uncontrolled intersections? Yes</td>
<td>No</td>
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<td>22. If yes, please state your policy.</td>
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<tr>
<td>23. Are there practices related to pedestrian safety and traffic calming and pinch points? Yes</td>
<td>No</td>
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<tr>
<td>24. If yes, please state your policy.</td>
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<tr>
<td>25. Are there existing practices related to pedestrian safety and traffic calming and crosswalks? Yes</td>
<td>No</td>
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<tr>
<td>26. If yes, please state your policy.</td>
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<tr>
<td>27. Are there existing practices related to pedestrian safety and traffic calming and pedestrian ramps? Yes</td>
<td>No</td>
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<tr>
<td>28. If yes, please state your policy.</td>
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<tr>
<td>29. Are there existing practices related to pedestrian safety and traffic calming and pedestrian signals? Yes</td>
<td>No</td>
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<tr>
<td>30. If yes, please state your policy.</td>
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<tr>
<td>31. Are there existing practices related to pedestrian safety and traffic calming and pedestrian protection? Yes</td>
<td>No</td>
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<td>32. If yes, please state your policy.</td>
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<tr>
<td>33. Are there existing practices related to pedestrian safety and traffic calming and pedestrian countermeasures? Yes</td>
<td>No</td>
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<td>34. If yes, please state your policy.</td>
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<tr>
<td>35. Are there existing practices related to pedestrian safety and traffic calming and pedestrian crash beneficial treatments? Yes</td>
<td>No</td>
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<td>36. If yes, please state your policy.</td>
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<td>37. Are there existing practices related to pedestrian safety and traffic calming and pedestrian crash beneficial treatments? Yes</td>
<td>No</td>
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<td>38. If yes, please state your policy.</td>
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<td>39. Are there existing practices related to pedestrian safety and traffic calming and pedestrian safety and traffic calming and pinch points? Yes</td>
<td>No</td>
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<td>40. If yes, please state your policy.</td>
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<tr>
<td>41. Are there existing practices related to pedestrian safety and traffic calming and crosswalks? Yes</td>
<td>No</td>
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<tr>
<td>42. If yes, please state your policy.</td>
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<tr>
<td>43. Are there existing practices related to pedestrian safety and traffic calming and pedestrian ramps? Yes</td>
<td>No</td>
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<td>44. If yes, please state your policy.</td>
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<td>45. Are there existing practices related to pedestrian safety and traffic calming and pedestrian signals? Yes</td>
<td>No</td>
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<td>46. If yes, please state your policy.</td>
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<tr>
<td>47. Are there existing practices related to pedestrian safety and traffic calming and pedestrian protection? Yes</td>
<td>No</td>
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<td>48. If yes, please state your policy.</td>
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<td>49. Are there existing practices related to pedestrian safety and traffic calming and pedestrian countermeasures? Yes</td>
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<td>50. If yes, please state your policy.</td>
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<tr>
<td>51. Are there existing practices related to pedestrian safety and traffic calming and pedestrian crash beneficial treatments? Yes</td>
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<tr>
<td>52. If yes, please state your policy.</td>
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*Pinellas County Pedestrian Safety Action Plan - Existing Conditions Questionaire Responses*
### Existing Condition Questionnaire Responses

<table>
<thead>
<tr>
<th>Question</th>
<th>Pinellas County Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>III-27.</strong> Are your design standards predicated on slow speeds in urban environments?</td>
<td>Yes. Maximum speed in urban area is 45 mph. Refer to Green Book.</td>
</tr>
<tr>
<td><strong>III-28.</strong> Do you provide countdowns at signalized intersections where it would help?</td>
<td>Yes. All pedestrian signals have LED countdowns.</td>
</tr>
<tr>
<td><strong>III-29.</strong> Do you routinely consider reducing the number of travel lanes where practical?</td>
<td>Yes. Can be done where warranted. Possibly Pinellas St and Ft. Harrison.</td>
</tr>
<tr>
<td><strong>III-30.</strong> Are your design standards predicated on high speeds in urban areas?</td>
<td>No. Predicated on 85th percentile speed.</td>
</tr>
<tr>
<td><strong>III-31.</strong> Do you routinely consider reducing the number of travel lanes where practical?</td>
<td>Yes. Designed by ADA requirements/standard.</td>
</tr>
<tr>
<td><strong>III-32.</strong> Are your design standards predicated on slow speeds in urban environments?</td>
<td>Yes. The speed limit is 25 mph on local roads and 30 mph or greater on arterial roads.</td>
</tr>
<tr>
<td><strong>III-33.</strong> Do you provide marked crosswalks at signalized intersections?</td>
<td>Yes. See PW response.</td>
</tr>
<tr>
<td><strong>III-34.</strong> Are your design standards predicated on slow speeds in urban environments?</td>
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<td><strong>III-37.</strong> Do you provide marked crosswalks at signalized intersections?</td>
<td>Yes. All have high visibility markings and yes, routinely provided at signalized intersections.</td>
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<tr>
<td><strong>III-41.</strong> Do you provide marked crosswalks at signalized intersections?</td>
<td>Yes. All have high visibility markings and yes, routinely provided at signalized intersections.</td>
</tr>
</tbody>
</table>
School stops - small specialist civil engineers
6. Do you collaborate with transit providers to ensure pedestrian safety? Yes / No [short list]
7. Transit operations
School stops
8. Bus stop locations, operational issues and safe crossings behind the bus (where warranted) behind the bus stop at midblock locations so pedestrians cross behind the bus, where they can see oncoming traffic; it also enables the bus driver to pull away without endangering pedestrians.

2. Existing Practice/Policy Details:

Provide input on pedestrian/pedestrian safety for coordination by transit agencies to place stops for adequate and effective service. Typically, far side stops are preferred. Designs are done so that pedestrian safety is provided. Site is preferred. In general, far side stops are preferred for pedestrian safety, as pedestrian lanes are behind the bus, and the bus can have adequate time to exit and enter to cross the street. For example: Court St at Ft Harrison St. Court St is the mainline but is phase as the side street so that gaps are guaranteed.

1. Existing Practice/Policy Details:

- School stops - small specialist civil engineers
- Transit operations
- School stops
- Far side stops preferred: behind the bus, where they can see oncoming traffic; it also enables the bus driver to pull away without endangering pedestrians.
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<tbody>
<tr>
<td>III-34. Transit-related crashes</td>
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<tr>
<td>III-35. Bus stops need to be located where passengers with disabilities can board the bus.</td>
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<tr>
<td>III-36. Does the transit agency have a policy to ensure stops are accessible? Yes / No</td>
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<tr>
<td>III-37. Does the transit agency have a policy to ensure stops are easily accessible? Yes / No</td>
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</tr>
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<td>III-38. Do you collaborate with transit providers to ensure stops are practical? Yes / No</td>
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**Table: Existing Practice/Policy Details**

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<tr>
<th>Question</th>
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<tr>
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<td>2. Bus stops should be located where the driver can easily stop and move back into traffic again.</td>
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<tr>
<td>Existing Practice/Policy Details</td>
<td>City of Clearwater</td>
<td>Section 3 of Transportation Element of the Comprehensive Plan Policy</td>
<td>School Siting and Pedestrian-Friendly Environment</td>
</tr>
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</tr>
<tr>
<td>Mixed-use development</td>
<td>Buildings that define roadways</td>
<td>Buildings set back with large parking lots in front create wide high-speed roads.</td>
<td>Yes. Livable Communities details this depending for numerous scenarios.</td>
</tr>
<tr>
<td>City of Clearwater</td>
<td>Sitting and space requirements should ensure that schools are placed in neighborhoods,</td>
<td>Land use patterns impact pedestrian crashes. Pedestrian crash severity is higher in low-density, single-use locations when compared to mixed-use development.</td>
<td>Yes. Livable Communities details this depending for numerous scenarios.</td>
</tr>
<tr>
<td>School</td>
<td>Parking</td>
<td>Pedestrian crash severity is higher in suburban, auto-oriented locations as compared to more traditional urban settings where the pedestrian environment is more diverse and less severe in established, traditional urban areas where drivers are more aware of pedestrians. Sample scenarios.</td>
<td>Yes. The Transportation Element of the Comprehensive Plan Policy</td>
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<td>Existing Practice/Policy Details</td>
<td>State your existing policies (may need additional sheets):</td>
<td>Pedestrian crash severity is higher in suburban, auto-oriented locations as compared to more traditional urban settings where the pedestrian environment is more diverse and less severe in established, traditional urban areas where drivers are more aware of pedestrians. Sample scenarios.</td>
<td>Yes. The Transportation Element of the Comprehensive Plan Policy</td>
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<td>Commitment to safety</td>
<td>Parking</td>
<td>Pedestrian crash severity is higher in suburban, auto-oriented locations as compared to more traditional urban settings where the pedestrian environment is more diverse and less severe in established, traditional urban areas where drivers are more aware of pedestrians. Sample scenarios.</td>
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</table>
**Existing Practice/Policy Details:**

- **Complete Roadways (also called routine accommodation)**
- **FDOT District 7**

- **Is the most cost-effective funding**
- **A Pedestrian Advisory Board**
- **Individual stakeholder involvement**
- **Sidewalk Maintenance**
- **Design manuals and standard specifications**

---

**Mandatory Information**

- **Please describe:**
  - Plan – typically to reduce pedestrian crashes by a certain percentage.
  - **Success.** Success should be measured against the objectives set forth in the Pedestrian Safety Action Plan.
  - **Increased** and walks; use of public transit etc. (e.g. walking shoes sold participation in public runs etc.). Other measurements include sales and events (e.g. walking shoes sold participation in public runs etc.).
  - **Infrastructure accomplishments** can be measured (e.g. miles of sidewalks completed).

**Performance Measures**

**Performance measures evaluate whether a school is meeting its goals e.g. to reduce crashes and crashes.

---

**Questions**

1. **Do you have an inventory of all design manuals, standard specifications, other relevant state and federal design guidelines?** Yes / No
2. **State existing relevant manuals, standard specifications and other relevant design guidelines:**
3. **Do you have adopted AASHTO standards?** Yes / No
4. **Please describe and state approximate annual budget:**
5. **Do you have a PAC that regularly reviews policies, programs and projects?** Yes / No
6. **If you have a PAC, describe its role:**
7. **Do you have a PAC that regularly reviews pedestrian safety programs and policies:**
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**Implementation:**

- **Do you conduct pedestrian safety audits as part of the Plan?** Yes / No
- **Do you conduct pedestrian safety audits as part of the Plan?**
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**Evaluation:**

- **Do you routinely measure and evaluate the effectiveness of the Plan and adjustments made to the Plan if necessary?**
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**Conclusion:**

- **The City has a large inventory of appropriate documents that is accessible over time.**
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**Notes:**

- **Shall be considered for inclusion in the Pedestrian Safety Action Plan.**
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**Additional Information:**

- **Documents are referenced on Department Key sheets that they can be located.**
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APPENDIX B: EDUCATION INITIATIVES

Best Practices in Pedestrian Transportation Safety Education

Bicycle and Pedestrian Safety

More Health Inc. teaches a Bicycle and Pedestrian Safety course entitled “Safe Wheels and Safe Walkers” to Pinellas County first grade students. This 40-minute presentation teaches children about the importance of wearing a helmet when biking, and protecting your brain. They sing along with Spike and learn it is cool to wear a bicycle helmet. The course teaches Safe Walkers the importance of following the rules for pedestrian safety. Students actively build a “Safe Town” while learning bicycle and pedestrian safety rules.

More Health was awarded funding through the FDOT Safe Routes to School Program for September 2007 – September 2009. More Health is applying for an additional two years of funding. If awarded, the program will continue through September 2011 in both Pinellas and Hillsborough Counties. An average of 6,351 first grade students attended this course in Pinellas County during the 2007-2008 and 2008-2009 school years. Students are given a pre- and post-course test. Scores rise approximately 60% on average for the post-test results. More information about this course is available by contacting Carlene Lemaster with More Health at 727-287-5302.

Pedestrian Safety Awareness Day

Since the late 1990s, the Pinellas County Metropolitan Planning Organization (MPO) has recognized the Monday following the annual Daylight Savings Time change in the fall, as Pedestrian Safety Awareness Day. The MPOs Pedestrian Transportation Advisory Committee (PTAC) uses this opportunity to remind drivers and pedestrians to be more alert and practice safe behavior at crosswalks and intersections. The Safely to School & Back Again brochure features:

- Seven Steps to Driving Safely
- Seven Steps To Pedestrian Safety
- Explanation and diagram of pedestrian pushbutton traffic signalization instructions
- Bicycle Safety tips
- School Bus Safety tips

The MPO adopts a resolution each year to recognize Pedestrian Safety Awareness Day. PTAC has incorporated several components from the Pinellas County School District’s “Safety First” campaign, including a list of safe practices that should be followed by both pedestrians and motorists. This list is widely circulated to the public and private schools and other key agencies.
including law enforcement, municipalities and senior centers. In November 2008, brochure distribution included: Public Schools – 105,000, Private Schools – 20,000, Law Enforcement – 2,400, Municipalities – 3,300, Senior Centers – 3,600 and Libraries – 650. Additionally, the St Petersburg Times has published the “Seven Steps” for Driving and Pedestrian Safety in its editorial section numerous times as part of Pedestrian Safety Awareness Day.

Safety First – Pinellas County School Board

The “Be Cool – Follow the Rules” brochure details Safe Travel To and From School by providing tips on Pedestrian Safety, Bike Safety, Bus Safety and Driving Safety. The brochure is distributed to students in class and is available to parents and students online at the School Boards website. Parents are expected to review these important tips and rules with their school age children. Some of what is detailed here is covered in the Safety to School & Back again brochure that promotes the MPO Pedestrian Safety Awareness Day.

Crosswalk Safety – Courtesy Promotes Safety!

This technique is offered in an environment in which crashes are less likely. Pedestrians are encouraged to thank drivers who yield at crosswalks. The brochure is presented in two parts, one for Drivers and one for Pedestrians. Drivers are provided four rules to protect pedestrians at crosswalks. Pedestrians are instructed with six rules to make crosswalks work for them. All rules have picture inserts. This brochure is prepared by the Center for Education and Research in Safety and published by the Florida Department of Transportation. The concepts were introduced to the Pinellas Community Traffic Safety Team approximately ten years ago. Additionally, the concepts are incorporated in pedestrian law enforcement training in District 7 and throughout Florida. The City of St Petersburgh recommends this technique for use to its residents.

Walk to School Day

This international event is celebrated annually throughout the month of October. Walk to School began in England and eventually made its way to the United States in 1997. Pinellas County generally celebrates this event for one day during the first week of October. The main goal is to promote safe walking and biking. Event activities include classroom instruction, creating signs for the walk, the “walking school bus” and a walk to school parade.

In 2008, over 30 elementary schools in Pinellas County held this event where students and parents joined together to walk to school in the morning, instead of driving. The event is coordinated locally by Safe Kids Coalition and supported by the Pinellas CTST. It is tied closely to the federal Safe Routes To School program, which is promoted by the Florida Department of Transportation. Safe Routes to School is a program which has funded millions of dollars in improvements to the pedestrian network throughout Pinellas County and Florida.
Pinellas County Back To School Blitz

At the beginning of each school year, beginning in 2007, local fire departments hold signs at major intersections throughout Pinellas County. They are there to remind drivers to slow down and be aware of children walking and crossing at intersections. Generally the firemen and women participate for several days during the first week of the new school year. The idea and activity originated with the EMS/Education Subcommittee of the Pinellas CTST.


- **Rectangular Rapid Flashing Beacons (RRFB) at Pedestrian Crosswalks (Enhancer) – Pinellas County CTST.** When activated by a pedestrian, motorist is warned that a pedestrian crossing is in progress. Goal is to increase motorist yielding compliance at mid-block and unprotected intersection crosswalks where enhancers are installed. Compliance is high. RRFBs are installed throughout the City of St Petersburg and at several locations in Pinellas County.

- **Roadway Lighting Analysis – Hillsborough County CTST.** Studies indicate that over 50% of pedestrian crashes occur during night and most are fatal and severe injures. Field measurements of roadway lighting systems are often conducted with handheld light meters at a short sample section of roadways. Conversely, a Mobile Lighting Measurement System (MLMS) is used to collect massive light data in short periods of time. The system will reduce the cost of future data collection efforts and improve the safety of the data collection personnel. The MLMS is being used to collect lighting levels along 250 miles of state roadway in FDOT District 7.

- **Walk Safe Program – Miami-Dade CTST.** This is a 3-day curriculum based educational classroom program teaching children safe street crossing skills as well as encouraging them to walk to and from school. Impact is accessed on street crossing behaviors of children who have received the class. Various agencies are involved including the MPO, Law Enforcement and Safe Kids.

- **Pedestrian and Bicycle Safety Program – City of Miami Gardens CTST.** Geared to elementary and middle school students. The School Crossing Guard Division has been trained in the “Walk Safe” program curriculum administered by the Ryder Trauma Center. Program is school based educational injury prevention for grades K-5. It is provided to students throughout the year.

- **Safe Route to School Survey – Hillsborough County CTST.** A pilot survey was conducted on students travel mode to school for 14 elementary and middle schools in Hillsborough County prior to the SRTS encouragement program starting. Student survey results showed that student demographic characteristics such as grade, gender, number of children in family and distance from home to school affect travel mode to school. Survey results show that when conditions improve, parents will allow children to walk or bike to school.
Safe Routes to School Project Funding

Pinellas County and various local agencies within the County have been the recipients of federal Safe Routes to School (SRTS) grant funding awards in recent years. Projects in Pinellas County include sidewalk construction at or near Blanton Elementary, Bardmoor Elementary and Lealman Elementary Schools. Construction of these sidewalk projects is scheduled to begin in late October 2009. Additionally, MK Rawlings and Pinellas Park Middle School were the recipients of Hawk Pedestrian Traffic Signals through SRTS. Finally, the cities of Tarpon Springs, St Pete Beach, and Dunedin, as well as Pinellas County received funding for the purchase of 32 speed feedback signs as part of the most recent award cycle. An additional 24 speed feedback signs and 2.75 miles of sidewalk are contemplated for FY 2009/10.
APPENDIX C: RELEVANT STATUTES

Florida Statute 316.130 Pedestrians; traffic regulations.--
(1) A pedestrian shall obey the instructions of any official traffic control device specifically applicable to the pedestrian unless otherwise directed by a police officer.

(2) Pedestrians shall be subject to traffic control signals at intersections as provided in s. 316.075, but at all other places pedestrians shall be accorded the privileges and be subject to the restrictions stated in this chapter.

(3) Where sidewalks are provided, no pedestrian shall, unless required by other circumstances, walk along and upon the portion of a roadway paved for vehicular traffic.

(4) Where sidewalks are not provided, any pedestrian walking along and upon a highway shall, when practicable, walk only on the shoulder on the left side of the roadway in relation to the pedestrian’s direction of travel, facing traffic which may approach from the opposite direction.

(5) No person shall stand in the portion of a roadway paved for vehicular traffic for the purpose of soliciting a ride, employment, or business from the occupant of any vehicle.

(6) No person shall stand on or in proximity to a street or highway for the purpose of soliciting the watching or guarding of any vehicle while parked or about to be parked on a street or highway.

(7)(a) The driver of a vehicle at an intersection that has a traffic control signal in place shall stop before entering the crosswalk and remain stopped to allow a pedestrian, with a permitted signal, to cross a roadway when the pedestrian is in the crosswalk or steps into the crosswalk and is upon the half of the roadway upon which the vehicle is traveling or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger.

(b) The driver of a vehicle at any crosswalk where signage so indicates shall stop and remain stopped to allow a pedestrian to cross a roadway when the pedestrian is in the crosswalk or steps into the crosswalk and is upon the half of the roadway upon which the vehicle is traveling or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger.

(c) When traffic control signals are not in place or in operation and there is no signage indicating otherwise, the driver of a vehicle shall yield the right-of-way, slowing down or stopping if need be to so yield, to a pedestrian crossing the roadway within a crosswalk when the pedestrian is upon the half of the roadway upon which the vehicle is traveling or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger. Any pedestrian crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing has been provided shall yield the right-of-way to all vehicles upon the roadway.
(8) No pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close that it is impossible for the driver to yield.

(9) Whenever any vehicle is stopped at a marked crosswalk or at any unmarked crosswalk at an intersection to permit a pedestrian to cross the roadway, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle.

(10) Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway.

(11) Between adjacent intersections at which traffic control signals are in operation, pedestrians shall not cross at any place except in a marked crosswalk.

(12) No pedestrian shall, except in a marked crosswalk, cross a roadway at any other place than by a route at right angles to the curb or by the shortest route to the opposite curb.

(13) Pedestrians shall move, whenever practicable, upon the right half of crosswalks.

(14) No pedestrian shall cross a roadway intersection diagonally unless authorized by official traffic control devices, and, when authorized to cross diagonally, pedestrians shall cross only in accordance with the official traffic control devices pertaining to such crossing movements.

(15) Notwithstanding other provisions of this chapter, every driver of a vehicle shall exercise due care to avoid colliding with any pedestrian or any person propelling a human-powered vehicle and give warning when necessary and exercise proper precaution upon observing any child or any obviously confused or incapacitated person.

(16) No pedestrian shall enter or remain upon any bridge or approach thereto beyond the bridge signal, gate, or barrier after a bridge operation signal indication has been given. No pedestrian shall pass through, around, over, or under any crossing gate or barrier at a railroad grade crossing or bridge while such gate or barrier is closed or is being opened or closed.

(17) No pedestrian may jump or dive from a publicly owned bridge. Nothing in this provision requires the state or any political subdivision of the state to post signs notifying the public of this provision. The failure to post a sign may not be construed by any court to create liability on the part of the state or any of its political subdivisions for injuries sustained as a result of jumping or diving from a bridge in violation of this subsection.

(18) No pedestrian shall walk upon a limited access facility or a ramp connecting a limited access facility to any other street or highway; however, this subsection does not apply to
maintenance personnel of any governmental subdivision.

(19) A violation of this section is a noncriminal traffic infraction, punishable pursuant to chapter 318 as either a pedestrian violation or, if the infraction resulted from the operation of a vehicle, as a moving violation.

History.--s. 1, ch. 71-135; ss. 1, 8, ch. 76-31; s. 2, ch. 83-68; ss. 1, 2, ch. 83-74; s. 3, ch. 84-309; s. 306, ch. 95-148; s. 123, ch. 99-248; s. 2, ch. 2008-33.

Note.--Former s. 316.057.

Florida Statute 316.003 Definitions.--The following words and phrases, when used in this chapter, shall have the meanings respectively ascribed to them in this section, except where the context otherwise requires:

(3) BUS.--Any motor vehicle designed for carrying more than 10 passengers and used for the transportation of persons and any motor vehicle, other than a taxicab, designed and used for the transportation of persons for compensation.

(6) CROSSWALK.--

(a) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway, measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway.

(b) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface.

(17) INTERSECTION.--

(a) The area embraced within the prolongation or connection of the lateral curblines; or, if none, then the lateral boundary lines of the roadways of two highways which join one another at, or approximately at, right angles; or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict.

(b) Where a highway includes two roadways 30 feet or more apart, then every crossing of each roadway of such divided highway by an intersecting highway shall be regarded as a separate intersection. In the event such intersecting highway also includes two roadways 30 feet or more apart, then every crossing of two roadways of such highways shall be regarded as a separate intersection.

(21) MOTOR VEHICLE.--Any self-propelled vehicle not operated upon rails or guideway, but
not including any bicycle, motorized scooter, electric personal assistive mobility device, or moped.

(28) PEDESTRIAN.--Any person afoot.

(29) PERSON.--Any natural person, firm, copartnership, association, or corporation.

(40) RIGHT-OF-WAY.--The right of one vehicle or pedestrian to proceed in a lawful manner in preference to another vehicle or pedestrian approaching under such circumstances of direction, speed, and proximity as to give rise to danger of collision unless one grants precedence to the other.

(42) ROADWAY.--That portion of a highway improved, designed, or ordinarily used for vehicular travel, exclusive of the berm or shoulder. In the event a highway includes two or more separate roadways, the term "roadway" as used herein refers to any such roadway separately, but not to all such roadways collectively.

(44) SAFETY ZONE.--The area or space officially set apart within a roadway for the exclusive use of pedestrians and protected or so marked by adequate signs or authorized pavement markings as to be plainly visible at all times while set apart as a safety zone.

(45) SCHOOL BUS.--Any motor vehicle that complies with the color and identification requirements of chapter 1006 and is used to transport children to or from public or private school or in connection with school activities, but not including buses operated by common carriers in urban transportation of school children. The term "school" includes all preelementary, elementary, secondary, and postsecondary schools.

(47) SIDEWALK.--That portion of a street between the curbline, or the lateral line, of a roadway and the adjacent property lines, intended for use by pedestrians.

(53) STREET OR HIGHWAY.--

(a) The entire width between the boundary lines of every way or place of whatever nature when any part thereof is open to the use of the public for purposes of vehicular traffic;

(b) The entire width between the boundary lines of any privately owned way or place used for vehicular travel by the owner and those having express or implied permission from the owner, but not by other persons, or any limited access road owned or controlled by a special district, whenever, by written agreement entered into under s. 316.006(2)(b) or (3)(b), a county or municipality exercises traffic control jurisdiction over said way or place;

(c) Any area, such as a runway, taxiway, ramp, clear zone, or parking lot, within the boundary
of any airport owned by the state, a county, a municipality, or a political subdivision, which area is used for vehicular traffic but which is not open for vehicular operation by the general public; or

(d) Any way or place used for vehicular traffic on a controlled access basis within a mobile home park recreation district which has been created under s. 418.30 and the recreational facilities of which district are open to the general public.

(57) TRAFFIC.--Pedestrians, ridden or herded animals, and vehicles, streetcars, and other conveyances either singly or together while using any street or highway for purposes of travel.

(63) BICYCLE PATH.--Any road, path, or way that is open to bicycle travel, which road, path, or way is physically separated from motorized vehicular traffic by an open space or by a barrier and is located either within the highway right-of-way or within an independent right-of-way.

(74) TRANSPORTATION.--The conveyance or movement of goods, materials, livestock, or persons from one location to another on any road, street, or highway open to travel by the public.

(75) VEHICLE.--Every device, in, upon, or by which any person or property is or may be transported or drawn upon a highway, excepting devices used exclusively upon stationary rails or tracks.

(83) ELECTRIC PERSONAL ASSISTIVE MOBILITY DEVICE.--Any self-balancing, two-nontandem-wheeled device, designed to transport only one person, with an electric propulsion system with average power of 750 watts (1 horsepower), the maximum speed of which, on a paved level surface when powered solely by such a propulsion system while being ridden by an operator who weighs 170 pounds, is less than 20 miles per hour. Electric personal assistive mobility devices are not vehicles as defined in this section.
APPENDIX D: PEDESTRIAN CRASH DATA AND ANALYSIS

CRASH DATA SUMMARY

Tables E-1 to E-6 and Figures E-1 to E-6 provide a summary of the pedestrian crashes in Pinellas County during the five year span between 2003 and 2007. The tables and figures display crash data relating to the following categories:

- 5 Year Pedestrian Crash Trend
- Fatal and Severe Injury Pedestrian Crashes
- Roadway Type Distribution
- Age Distribution
- Lighting Condition
- Alcohol Involvement

5 Year Trend

Table E-1: Total Pedestrian Crashes (2003 – 2007)

<table>
<thead>
<tr>
<th>Year</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Petersburg</td>
<td>69</td>
<td>77</td>
<td>73</td>
<td>63</td>
<td>69</td>
<td>351</td>
</tr>
<tr>
<td>Clearwater</td>
<td>40</td>
<td>48</td>
<td>29</td>
<td>29</td>
<td>39</td>
<td>185</td>
</tr>
<tr>
<td>Largo</td>
<td>23</td>
<td>29</td>
<td>24</td>
<td>29</td>
<td>19</td>
<td>124</td>
</tr>
<tr>
<td>Pinellas Park</td>
<td>22</td>
<td>18</td>
<td>15</td>
<td>23</td>
<td>24</td>
<td>102</td>
</tr>
<tr>
<td>All Other Cities</td>
<td>39</td>
<td>41</td>
<td>49</td>
<td>53</td>
<td>39</td>
<td>221</td>
</tr>
<tr>
<td>Unincorporated</td>
<td>213</td>
<td>244</td>
<td>228</td>
<td>221</td>
<td>193</td>
<td>1,099</td>
</tr>
<tr>
<td><strong>Countywide</strong></td>
<td><strong>406</strong></td>
<td><strong>457</strong></td>
<td><strong>418</strong></td>
<td><strong>418</strong></td>
<td><strong>383</strong></td>
<td><strong>2,082</strong></td>
</tr>
</tbody>
</table>

Figure E-1: Total Pedestrian Crashes (2003 – 2007)
**Fatal and Severe Injury Crashes**

**Table E-2: Fatal and Severe Injury Pedestrian Crashes (2003 – 2007)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Petersburg</td>
<td>33</td>
<td>37</td>
<td>29</td>
<td>31</td>
<td>26</td>
<td>156</td>
</tr>
<tr>
<td>Clearwater</td>
<td>14</td>
<td>22</td>
<td>8</td>
<td>12</td>
<td>18</td>
<td>74</td>
</tr>
<tr>
<td>Largo</td>
<td>7</td>
<td>12</td>
<td>9</td>
<td>11</td>
<td>4</td>
<td>43</td>
</tr>
<tr>
<td>Pinellas Park</td>
<td>15</td>
<td>8</td>
<td>7</td>
<td>11</td>
<td>16</td>
<td>57</td>
</tr>
<tr>
<td>All Other Cities</td>
<td>18</td>
<td>10</td>
<td>23</td>
<td>22</td>
<td>12</td>
<td>85</td>
</tr>
<tr>
<td>Unincorporated</td>
<td>45</td>
<td>51</td>
<td>43</td>
<td>39</td>
<td>41</td>
<td>219</td>
</tr>
<tr>
<td><strong>Countywide</strong></td>
<td><strong>132</strong></td>
<td><strong>140</strong></td>
<td><strong>119</strong></td>
<td><strong>126</strong></td>
<td><strong>117</strong></td>
<td><strong>634</strong></td>
</tr>
</tbody>
</table>

**Figure E-2: Fatal and Severe Injury Pedestrian Crashes (2003 – 2007)**

[Bar chart showing the number of fatal and incapacitating injury pedestrian crashes by year and location from 2003 to 2007.]
Roadway Type Distribution

Table E-3a: Pedestrian Crashes by Roadway Type (2003 – 2007)

<table>
<thead>
<tr>
<th>Roadway Type</th>
<th>Number of Pedestrian Crashes</th>
<th>Percent of Total</th>
<th>Number of Fatal and Incapacitating Crashes</th>
<th>Percent of Fatal and Incapacitating Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Lot</td>
<td>453</td>
<td>22%</td>
<td>79</td>
<td>12%</td>
</tr>
<tr>
<td>Major Road</td>
<td>1,235</td>
<td>59%</td>
<td>458</td>
<td>72%</td>
</tr>
<tr>
<td>Local Road</td>
<td>197</td>
<td>9%</td>
<td>55</td>
<td>9%</td>
</tr>
<tr>
<td>Unknown</td>
<td>197</td>
<td>9%</td>
<td>42</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td>2,082</td>
<td>100%</td>
<td>634</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table E-3b: Pedestrian Crashes by Roadway Type – Major Road and Local Road (2003 – 2007)

<table>
<thead>
<tr>
<th>Roadway Type</th>
<th>Number of Pedestrian Crashes</th>
<th>Percent of Total</th>
<th>Number of Fatal and Incapacitating Crashes</th>
<th>Percent of Fatal and Incapacitating Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Road</td>
<td>1,235</td>
<td>86%</td>
<td>458</td>
<td>89%</td>
</tr>
<tr>
<td>Local Road</td>
<td>197</td>
<td>14%</td>
<td>55</td>
<td>11%</td>
</tr>
<tr>
<td>Total</td>
<td>1,432</td>
<td>100%</td>
<td>513</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure E-3: Pedestrian Crashes by Roadway Type (2003 – 2007)
Age Distribution

Table E-4: Pedestrian Age Distribution (2003 – 2007)

<table>
<thead>
<tr>
<th>Pedestrian Age Group</th>
<th>Total Crashes</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5</td>
<td>21</td>
<td>1.2%</td>
</tr>
<tr>
<td>5-13</td>
<td>106</td>
<td>6.2%</td>
</tr>
<tr>
<td>14-18</td>
<td>152</td>
<td>8.9%</td>
</tr>
<tr>
<td>19-25</td>
<td>198</td>
<td>11.5%</td>
</tr>
<tr>
<td>26-40</td>
<td>367</td>
<td>21.4%</td>
</tr>
<tr>
<td>41-55</td>
<td>421</td>
<td>24.5%</td>
</tr>
<tr>
<td>&gt;55</td>
<td>450</td>
<td>26.2%</td>
</tr>
<tr>
<td>Unknown</td>
<td>367</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Figure E-4: Pedestrian Age Distribution (2003 – 2007)
Lighting Condition

Table E-5: Pedestrian Crashes by Lighting Condition (2003 – 2007)

<table>
<thead>
<tr>
<th>Lighting</th>
<th>Number of Crashes</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark (No Street Light)</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>Dark (Street Light)</td>
<td>603</td>
<td></td>
</tr>
<tr>
<td>Dawn</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Dusk</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>Daylight</td>
<td>1,259</td>
<td>60.6%</td>
</tr>
<tr>
<td>Unknown</td>
<td>5</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Figure E-5: Pedestrian Crashes by Lighting Condition (2003 – 2007)
Alcohol Involvement

Table E-6: Pedestrian Crash Alcohol and Drug Involvement (2003 – 2007)

<table>
<thead>
<tr>
<th>Intoxication</th>
<th>Total Crashes</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Involved</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>Drugs Involved</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Alcohol And Drugs</td>
<td>19</td>
<td>16.9%</td>
</tr>
<tr>
<td>Had Been Drinking</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>Pending Alc/Drug Test Results</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Not Drinking Or Using Drugs</td>
<td>1,443</td>
<td>83.1%</td>
</tr>
<tr>
<td>No Data</td>
<td>345</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Figure E-6: Pedestrian Crash Alcohol and Drug Involvement (2003 – 2007)