

PEDESTRIAN SAFETY AT INTERSECTIONS & CROSSWALKS

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The document may also be downloaded via the City's website through the Transportation Planning Department:
www.fcgov.com/transportation

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Executive Summary

Background

A safe pedestrian environment integrated into the City's vision for a balanced transportation system has long been an established goal of the City of Fort Collins. According to the City's comprehensive plan, *City Plan* (2004) and the City's *Transportation Master Plan* (2004), pedestrian mobility will be a practical and enjoyable means of travel.

Establishing a pedestrian system that is safe and efficient for all users depends in part on the quality, continuity, directness, and perceived safety of the network. Over the last few years, residents of Fort Collins have expressed increasing concern regarding the safety of being able to walk across the street, especially at intersections. As traffic volumes increase along with aggressive driving behavior, people have become apprehensive about being able to cross the street safely. Complaints have primarily centered on motorists not yielding to pedestrians in crosswalks when making right or left turns at intersections.

In response to these complaints, the City of Fort Collins staff has created an internal interdisciplinary advisory group consisting of various City departments to address pedestrian safety issues. This team has produced a pedestrian safety report including recommendations on how to improve street crossings. The need for this report coincides with the City

Council's Policy Agenda item to improve pedestrian safety throughout the community.

Pedestrian Safety at Intersections and Crosswalks Report

The pedestrian safety report describes current pedestrian conditions, including City policies, goals, standards, statistical crash data, and current efforts to improve pedestrian safety. Furthermore, the report forms a framework or action plan that outlines additional recommendations to increase pedestrian safety throughout the community. These recommendations generated by the staff advisory group work in conjunction with existing City policies, standards and on-going efforts.

The "Three E" approach was adopted by the group to address and improve pedestrian safety. These areas of focus include Enforcement, Engineering, and Education.

Pedestrian Safety Campaign

First and foremost the group recommends the City conduct a new and extensive educational safety campaign for motorists and pedestrians through public outreach efforts. The campaign should begin by familiarizing residents with local laws for walking across the street, including the operation of pedestrian signals. The campaign should also focus on the responsibilities of motorists and how they relate to safe pedestrian mobility. Coupled with the educational component of the campaign should be a law enforcement effort for individuals. According

to the Insurance Institute for Highway Safety, the largest change in driver behavior comes from the enforcement of traffic safety laws. These steps will be important in creating and maintaining a safe pedestrian environment.

Tools and recommendations to accomplish this effort include:

- Create an interactive website to provide educational materials and allow citizens to provide input to City staff regarding pedestrian safety concerns or suggestions.
- Design a website quiz to tests motorist's and pedestrian I.Q. pertaining to pedestrian safety and local law.
- Create education manuals for motorists and pedestrians. Contents of the manuals should be focused on targeted audiences and age groups. Manuals for new and experienced motorists should include statistics on motor vehicle and pedestrian collisions, turning movements that are most hazardous for pedestrians, safe ways to conduct turns, and how to comply with the City's traffic code. Manuals for younger students (K through 5th grade) should include ways to cross the street safely, hazards to look out for, and how to operate a pedestrian signal. Well written and illustrated driver manuals are increasing in importance as public schools phase out driver education classes.

**The Insurance Institute
for Highway Safety
reports that the largest
change in driver behavior
comes from the
enforcement of traffic
safety laws.**

- Utilize media sources, such as newspapers, television, etc... to provide educational material to targeted audiences.
- Meet with neighborhood groups regarding issues or concerns on pedestrian safety in their neighborhoods and throughout town.
- Utilize local insurance representatives for public driver safety presentations and include additional information concerning pedestrian safety. Explore further possible joint efforts with local insurance companies.
- Inform motorists and pedestrians as to the penalty for violating pedestrian safety traffic laws through outreach efforts such as signage, publications, or presentations.
- Partner with other organizations and events.
- Conduct a law enforcement workshop followed by a pedestrian right-of-way enforcement effort (see recommendation under Enforcement).

Below are additional recommendations based on the "Three E" approach to pedestrian safety.

Three E's - Enforcement

Recommendations

- Conduct a two day pedestrian safety and law enforcement workshop. Subject matter may include the role of law enforcement in pedestrian safety, the causes of pedestrian and motor vehicle collisions, a review of Fort Collins pedestrian ordinances and State laws, enforcement strategies and techniques, and implementing interagency cooperation.
- The law enforcement workshop should be followed by a targeted pedestrian right-of-way enforcement operation or “pedestrian sting.” The operation would target motorists who commit traffic code violations that result in unsafe conditions for pedestrians attempting to lawfully cross the street. The event should be undertaken in cooperation with a comprehensive educational and media outreach effort to raise awareness for pedestrian safety issues prior to the enforcement operation. The event could be scheduled with the start of the new school year.
- Further analysis of police reports and field investigations are necessary to determine reported crash types, existing conditions, and other factors to accurately attribute the cause and identify the appropriate or recommended countermeasures.

- City staff will review and compare the existing Fort Collins Traffic Code (FCTC) regarding pedestrian right-of-way at crosswalks to determine if the City’s code could be revised to more easily allow law enforcement officers to enforce the code and allow the Traffic Operations Department to design safer crosswalks.
- A legislative review of the FCTC should also determine if the severity of the punishment is adequate for the offense to ensure it acts an effective deterrent.
- Fort Collins police officers should attempt to routinely enforce the pedestrian traffic safety laws, including the pedestrian right-of-way in crosswalks. These efforts should also include enforcement of pedestrian compliance (jaywalking).

Three E's - Engineering

Recommendations

- The user’s perspective is critical to a successful crosswalk design. Utilize the crash data from the police reports to identify the top three intersection “hot spots” involving pedestrian and motor vehicle collisions. From this data conduct a “Real Intersection Design” workshop or a “Pedestrian Crossing Action” to examine

each intersection and explores possible design solutions to increase the pedestrian safety.

- Continue to install new and innovative traffic control devices recently approved *Manual on Uniform Traffic Control Devices* to improve pedestrian crossings.



Flashing Pedestrian Signal (Mountain Ave. at Remington)

- Presently most traffic signals are programmed to release pedestrians and turning vehicles at the same time, or with little to no separation time. Consider expanding the City's use of Leading Pedestrian Interval (LPI) technique. This practice releases pedestrians several seconds early to cross the street

before turning vehicles are allowed to enter the intersection. The city is currently utilizing this practice at the Doctors Lane and Lemay Avenue intersection.

- Examine the City's street standards for intersection and crosswalk design, as well as the striping treatment, to determine if there are possible revisions that could improve pedestrian safety. The City should also elevate the pedestrian and the safety factor when planning, designing and constructing streets since they are most at risk.
- Continue to review the City's standard for pedestrian signal timing with new or proposed engineering changes, especially how they relate to the proposed changes from the Americans with Disability Accessible Guidelines.
- The City of Fort Collins should continue with its data collection and analysis of pedestrian-motor vehicle collisions that is used to improve dangerous street crossings.
- The City should continue to operate the Safe Routes to School program, but should be expanded to include student routes to bus stops.
- Relocate inconveniently located mid-block transit stops closer to intersections or traffic signal

controlled crosswalks to encourage transit users to cross the street at crosswalks.

- Consider reducing the number of right turn on red at intersections with high pedestrian traffic, such as intersections around the Colorado State University and downtown.



No Right Turn On Red Signal Head

- Review and update the City's *Multi-modal Level of Service Manual*, especially the street crossing standard for pedestrians.

- In locations with high senior citizen pedestrian traffic, route planning and street design should take into account the following items to increase safety for senior pedestrians: safe and appropriately designed and scaled sidewalks, clearly marked crosswalks and pedestrian signals, sufficient time to cross the street, benches for resting, reduced traffic speeds, and include pedestrian refuge islands in the center of the streets.
- The City's Traffic Engineer should continue to consider pedestrian and bicycle safety as factors when roadway speed limits are established.
- To reduce the number of motorists stopping in crosswalks and to improve pedestrian safety, advance stop bars or yield lines should be painted at all intersections or mid-block crossings that contain marked crosswalks. Mid-block stop bars or yield lines should be placed in accordance with the Manual on Uniform Traffic Control Devices at a range of 20 to 50 feet from the crosswalk. This is especially important on multi-lane roadways to improve pedestrian visibility.
- Continue to fund the *Pedestrian Plan*, including the Safe Routes to School element and the SWFC pilot program's educational and public outreach component. There are numerous pedestrian projects in older areas of the community, as well as areas that need to become more accessible for people with

disabilities. Even if existing funding levels were to continue, it would take many years to bring the entire pedestrian system up to the City's current standards.

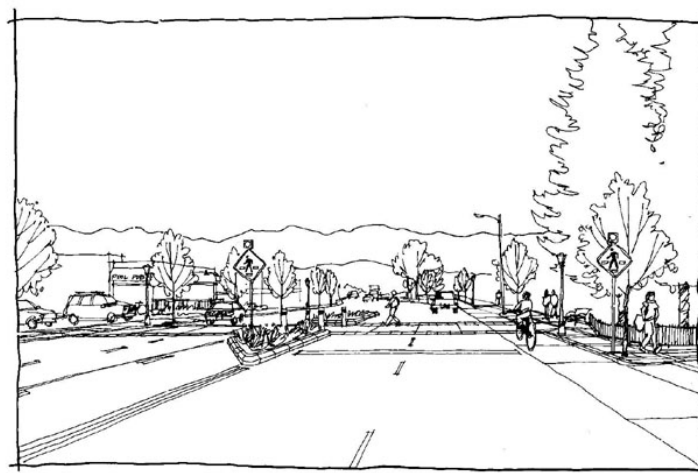
Three E's - Education

Recommendations

- On-going educational partnerships with outside public and private agencies should continue to promote pedestrian safety and awareness.
- The City's Smart Trips Department and the Safe Routes to School program should combine efforts with the Poudre School District to conduct interactive school workshops focused on pedestrian, bicycle, bus and auto safety. Workshops should be geared toward specific age groups (K-12) and provide a training course with hands-on exposure to sidewalks, streets, driveways, crosswalk signals, railroad tracks, and even dogs.
- In addition to school age children the Safe Walk Fort Collins Program's educational component should target other members of the community, including parents, law enforcement agencies, boards and commissions, hospitals, community and business groups, the physically disabled, the elderly, and even the City of Fort Collins staff.

- Combine law enforcement and educational efforts through a cooperative partnership.
- Review current city and state driver education practices for new drivers and reeducation of existing drivers as it relates to pedestrian right-of-way. Also review course material for any references for right-of-way to pedestrians in crosswalks.

Based on the report's analysis and these recommendations, an Action Plan has identified several items that can be implemented in both a short and long term time frame as resources and budget allow. These are the first steps that need to be taken by the City of Fort Collins to create a safe and "walkable" community.



Artist Sketch of a Mid-block Pedestrian Crossing