



TRAFFIC CONTROL
Manual
FOR SCHOOL CROSSING PROTECTION

PREPARED BY

School Crossing Protection Committee

As Revised for the
Springfield R-12 School District
2010-2011 School Year

ADOPTED BY

**SPRINGFIELD R-12
SCHOOL DISTRICT**

**CITY COUNCIL
CITY OF SPRINGFIELD, MO**

**GREENE COUNTY
COMMISSION**

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F ORWARD

Pedestrian safety depends in large measure upon motorist understanding and accepting traffic control measures selected and applied in a uniform and appropriate manner. This principle is never more important than in the control of vehicles and pedestrians in the vicinity of schools. Neither school children nor motorists can be expected to move safely in school zones unless they understand both the need for traffic controls and the ways in which these controls function for their benefit.

The lack of uniformity in the methods for traffic control within a community and from one community to another is considered one of the greatest obstacles to the development of successful school crossing safety programs. It is for this reason that the Springfield School Crossing Protection Committee has developed this manual that provides policies and practices proven effective in the solution of community school pedestrian problems.

In an attempt to continually improve and strengthen the guidelines and procedures necessary for a successful school crossing safety program, the original manual developed in June 1973 has had major revisions in 1978, 1994, and 2006. Since the 2006-2007 school year, the manual has been reviewed annually with minor revisions approved by the School Crossing Protections Committee administratively. A listing of revisions for the 2010-2011 school year is attached as Appendix G.

The policies and practices contained in this manual have been patterned after nationally accepted standards and incorporate local practices and standards proven successful for nearly 40 years of experience in the City of Springfield with a formalized School Crossing Protection Program. This program applies Best Practices of the three E's (education, enforcement, and engineering) uniformly administered and balanced to compliment each other.

The policies and practices in this manual apply to all Springfield R-12 Schools in both the City and the County unless otherwise noted.

The safety of school children should be the ultimate goal of everyone involved in the establishment and maintenance of school crossings.

T HE PROGRAM

An effective program for pedestrian protection at school crossings depends upon the efforts of governmental and school district officials working together with parents to get things accomplished. In Springfield, two groups, the School Crossing Protection Committee and the Traffic Advisory Board, have been established and charged with the responsibility of guiding and coordinating the school crossing safety program. When school crossing protection issues arise outside the city limits, the Springfield R-12 School District will solicit input from the School Crossing Protection Committee and coordinate with Greene County officials or other jurisdictions.

SCHOOL CROSSING PROTECTION COMMITTEE

The School Crossing Protection Committee is a group consisting of Springfield R-12 School District PTA representatives, the Director of School Public Safety for the Springfield Public Schools, the District Traffic Engineer of the Missouri Department of Transportation, the Springfield City Traffic Engineer, City and County Law Enforcement Agencies, and Greene County Highway Department representatives. This Committee is responsible for reviewing and handling school crossing protection complaints and requests, taking immediate action to help correct emergency school traffic safety problems, establishing priorities on projects, and develop policies and procedures to insure a uniform school crossing protection program throughout the Springfield R-12 School District. This Committee forms the working technical committee to prepare recommendations and guidance for the Traffic Advisory Board, the R-12 School District, City Council and the Greene County Commission.

TRAFFIC ADVISORY BOARD

The Springfield Traffic Advisory Board is composed of nine citizens appointed by the Springfield City Council who through their employment or public service have demonstrated a sincere interest and considerable knowledge in the traffic safety field. The Springfield City Council formed the Traffic Advisory Board for the purpose of reviewing the studies of the Traffic Engineering Division. Ex-officio members of the Committee are the City Manager, City Traffic Engineer, the Municipal Judge, the Chief of Police, the head of the Police Traffic Division, representative from the Springfield Council of PTA, Director of Transit for City Utilities, District Engineer for the State Department of Transportation, Administrator for the Greene County Highway Department, and the Director of Police Services of the Springfield R-12 School District, or any representatives from any of these agencies listed above (per Springfield City Code Section 2-261). Because the Board represents a broad cross section of interests in Springfield, the Board is responsible for reviewing the recommendations of the School Crossing Protection Committee pertaining to Springfield city streets to insure that the school crossing protection proposals are consistent with uniform traffic regulations and controls acceptable to the general public.



CHAPTER
2**WHO IS RESPONSIBLE?**

Learning to live in today's traffic environment is serious business. Children face a variety of complex traffic situations everyday. Where should they walk along streets without sidewalks? How should they cross a street safely? Children must know how to cope with these and many other traffic problems if they are to become self-reliant and safe pedestrians.

The responsibility to provide safe walking conditions and to develop self-reliance and safe habits among children is shared by parents, school authorities, government agencies and officials, and the children themselves.

The primary responsibility for the safety of children walking to and from school rests with the parents. The parents have the best understanding of their children's abilities to cope with traffic issues. Further, parents have the principal responsibility to instruct their children in the recommended walking routes, crossing locations, and to instill in the mind of the children the importance of following the recommended walking routes. School and traffic officials will do their best to provide the necessary learning experience and traffic controls, but without the full cooperation of the parents, the program will be inadequate.

Parents are obligated to understand traffic regulations and control measures and to make sure their children also understand them. Only parents can give preschool children the necessary instruction in safe practices. By precept and example, parents are the greatest single influence in their children's development as safe and self-reliant pedestrians. Poor parental example and lack of supervision can defeat the positive efforts of others to provide for a child's safety.

School boards establish and school administrative personnel implement the policies that provide traffic safety education in the classroom and in other learning experiences. These policies also provide for necessary school administrative measures to help assure safety for young pedestrians.

State legislatures and local governments hold the responsibility to enact the laws and regulations that provide for the necessary control and protection of pedestrians. Operating within these laws and regulations, traffic engineers utilize uniform, standard, and recognizable traffic signs, signals and pavement markings to protect pedestrians. The enforcement of traffic laws and the supervision of traffic are police responsibilities.

Children must apply what they learn. An important part of the schools' safety education program is providing children with opportunities to help plan their own practical application in this vital area of learning. Beyond this, pupils need the challenge of practice guided by adults.

These responsibilities can be met with the implementation of a sound, balanced school pedestrian safety program. The program involves all concerned groups and individuals so that they can work together effectively. With this responsibility shared, Springfield, Greene County, and other jurisdictions will continue to make progress toward pedestrian safety for all children.



CHAPTER 3

D EFINITIONS

Terms pertinent to this School Crossing Protection Program used in this Manual are defined as follows:

Adult School Crossing Guard – See Chapter 5. Adult School Crossing Guards are appointed to assist school children across streets by walking with the school children. Adult School Crossing Guards receive special training for their assignments which may be at mid-block or intersection locations, where vehicular traffic flow may be controlled with stop signs or signals or otherwise not required to stop.

Barrier Street – See Chapter 9. A street with a functional classification of freeway or expressway and other streets with a speed limit of 45 mph or more, and/or a traffic volume of 30,000 vehicles per day would be considered a barrier street. Every effort should be made to eliminate the need for children to cross these types of streets although there are interim crossing protection measures that can be applied until such time as the at-grade crossings are eliminated.

Engineering Study – See Chapters 5 & 6. An engineering study is a documented analysis and evaluation of information which involves the application of appropriate engineering principles and standards. Below are some typical items within a traffic study:

- Traffic volumes (during crossing periods, peak hours, and daily)
- Crash history
- Gap study (time between vehicles crossing a point approaching from either direction)
- Student count at a specific crossing location
- Speed study for vehicles approaching from either direction
- Input and participation by school district representatives, principals, parents, PTA safety committees, and law enforcement.



Manual on Uniform Traffic Control Devices – See Chapter 5. Abbreviated MUTCD. The MUTCD is published by the Federal Highway Administration and updated from time to time to establish guidelines and standards for the uniform application of traffic control devices including school areas and walking routes. Chapter 5 provides guidelines and standards for accommodating pedestrians, school areas, and bicycles.

Children – The term children as used in this manual refers to students in schools with Kindergarten thru 5th Grade or to all students in any school which includes 5th Grade or below.

School Walking Route Plan – A map of each school area illustrating the location of the school, types and locations of crossing protection provided, presence of sidewalks, and recommended walking paths along streets leading to the school.

Warrants – Guidelines and procedures for traffic control devices and adult crossing guards are in found in Chapters

CHAPTER
4

Five and Six.

RECOMMENDED SCHOOL ROUTES

One of the most basic yet important elements of a school crossing program is the development of a “Recommended School Walking Route Map” for every school, with students in the 5th Grade and below. Each map shows the streets, location of the school, existing traffic controls, sidewalks, crossing guard locations, and arrow head markings, that suggest the walking route for each child from his/her home to the school utilizing the recommended school crossing locations. Children riding bicycles to school will find the recommended walking routes as the safest routes for them to follow to and from school, also. Parents have responsibility for making the decision to allow their child to follow the suggested walking routes unescorted by an adult or older sibling (of middle school age or older).

“Recommended School Walking Maps” have been developed by the City of Springfield’s Traffic Engineering Division for all schools, with students in the 5th Grade and below, in the R-12 School District within Springfield and in coordination with the Greene County Highway Department or other jurisdictions for schools outside of the Springfield city limits.

“Recommended School Walking Maps” have been developed with the following objectives and considerations:

1. Routes converge as students approach the school to aggregate the children as soon as possible for greater safety and to consolidate the number of street crossings to reduce total vehicle-pedestrian exposures.
2. Routes make the maximum use of existing traffic signals, stop signs and yield signs, and existing sidewalks and streets having wide, smooth, shoulders.
3. It is normally impractical to provide additional school crossing signals or adult guards within one block of an existing traffic signal or adult supervised crossing. Crossing of major streets should be limited to one location.
4. Engineering studies are necessary to determine proper traffic control devices for safe pedestrian crossings. Warranted traffic control devices and markings may be installed at crossing locations in accordance with the provisions of the MUTCD, published by the Federal Highway Administration, most recent edition.
5. Adequate sight distance between the motorist and the pedestrian must be considered at all crossings.



The City of Springfield’s Traffic Engineering Division is responsible for maintaining the “Recommended School Walking Route Maps” for all schools, with students in the 5th Grade and below, in the R-12 School District and make them available for

viewing and copying on the City of Springfield Traffic Engineering web page (<http://www.springfieldmo.gov/school>); they may also be accessed by link from the Springfield R-12 School District web page (www.springfieldpublicschools.org). The R-12 School District is responsible for insuring that a copy of the Recommended School Walking Map is distributed to each school at the beginning of each school year. The map should be posted in a conspicuous place at each school. Classroom instruction should be given on general pedestrian safety rules. The principal of each school will inform parents that the school walking route maps are maintained and available online and offer to provide a paper copy of the walking route map for their school upon request.



Recommended School Walking Maps are to be reviewed annually by each school PTA and the City of Springfield Traffic Engineering Division and updated as changes occur. Changes in the maps are required whenever there are boundary changes (including the closing of schools) or the addition of new streets and housing areas. The PTA Safety Committee Chairperson and Principal in each school should encourage and promote periodic inspection of the walking routes by parents to determine how well their children are following the routes and inspect the condition of traffic control devices, markings and sidewalks along the way. Any damaged, deteriorated, or missing signs and markings or malfunction of traffic signals should be reported as soon as possible by phone to the appropriate agency as listed under “Contact Information” in Appendix A of this manual.



SCHOOL CROSSING PROTECTION

CHAPTER 5

All recommendations for the installation of school crossing controls must follow sound policies based on nationally accepted principles. The most important policy is the one controlling uniformity in design and application of traffic control devices.

Uniform standards for all traffic control devices – signs, signals, and pavement markings – are set forth in the MUTCD. Section 106-151.(a) of the Springfield City Code specifies that “All traffic control devices signs, signals, and markings shall conform to the most recent edition of the Manual on Uniform Traffic Control Devices.”

All traffic control devices are installed to fulfill a specific function under specific traffic conditions. Whether controls are intended to fill either a warning function or a regulatory function, they are installed only when traffic studies show the existence of a definite need. Therefore, it is the policy to install traffic control devices only when applicable minimum warrant for the installation of such device is met or special conditions justify an exception. Unnecessary traffic control devices cause lack of respect by the motorists which lessens the respect for traffic control devices in general.

To achieve uniformity of traffic controls in school areas, comparable traffic situations must be treated in the same manner, from school attendance area to school attendance area. The key to crossing any street safely, whether by an adult or by a child, lies in the gaps that occur in the stream of vehicular traffic. Gaps between vehicles determine whether the pedestrian has adequate time to cross the street safely. If the natural gaps occurring in the traffic are not of sufficient duration and frequency, then it is necessary to use an artificial method to lengthen the gaps. Artificial methods of creating adequate gaps may involve the use of stop signs, traffic signals, or an adult guard. Exhibit A below lists the adequate gap times for roadways with three or less lanes and four or more lanes.

Each of the crossing protection devices discussed below are listed in order of progressive protection, least restrictive and low cost to more restrictive and higher cost, building towards the ultimate elimination of the need for children to cross a street at-grade. The following protective devices are listed along with minimum criteria used to determine their usage on streets within the Springfield city limits:

EXHIBIT A

Adequate Gaps For Pedestrians To Cross Roadways							
Three or Less Lanes				Four or More Lanes			
Adequate Gap (sec)	Walking Speed (ft/sec)	Crossing Distance* (ft)	Perception-Reaction Time (sec)	Adequate Gap (sec)	Walking Speed (ft/sec)	Crossing Distance* (ft)	Perception-Reaction Time (sec)
12	3.5	20	6	20	3.5	40	9
13	3.5	24	6	22	3.5	44	9
14	3.5	28	6	23	3.5	48	9
15	3.5	32	6	24	3.5	52	9
16	3.5	36	6	25	3.5	56	9
18	3.5	40	6	26	3.5	60	9
19	3.5	44	6	27	3.5	64	9
20	3.5	48	6	28	3.5	68	9

*Crossing Distance is the distance from curb to curb within the crossing area.

PAINTED CROSSWALKS



Street crossing locations included on the Recommended School Walking Map where fifteen (15) or more children cross a minimum volume of sixty (60) vehicles per hour should have painted crosswalks. Midblock locations meeting this criteria shall not be marked except when the location is immediately adjacent to the school, signalized, or adult supervised. School crossing warning signs shall be posted at all marked crosswalk locations except at intersections controlled by stop signs. A school advance warning sign, mounted an appropriate distance in advance of the crosswalk shall be utilized in conjunction with the marked crosswalk locations. Warning signs installed under this warrant shall be

in accordance with the MUTCD. Marked crosswalks are signed differently to distinguish between school crosswalks and standard crosswalks.

STOP SIGNS

Regulatory stop signs shall be placed at intersections in accordance with the provisions found in the MUTCD. Because stop signs cause a substantial inconvenience to the motorist, vehicular demands as defined in the MUTCD should be met.

NO PARKING, STOPPING, OR STANDING SIGNS

Regulatory no parking, stopping, or standing signs may be placed in areas along the school frontage to reinforce clear sight distance around crosswalks, driveways, and/or intersections. They also can be used to help eliminate children pickup from the opposite side of the street along the school frontage.

SCHOOL SPEED ZONE

The installation of School Speed Limit signs will minimally impact the existing speeds on the streets. Therefore, for the school speed limit to be useful, it should only be established where a greater than normal potential conflict between vehicles and pedestrians is present. The effective hours of the reduced speed limit should only be during the period of anticipated pedestrian activity. School Speed Limits may be established for the following situations:

1. Where children are walking in the roadway, or adjacent to the roadway where no sidewalk exists; and/or
2. Where children are using a school marked crosswalk, not protected by traffic control devices or adult guard, on the frontage to the school; and/or
3. Special conditions. See Chapter 10.



For locations within the City of Springfield: If a location meets the criteria listed above, then a school speed limit may be installed in accordance with Sec. 106-236 of the Springfield City Code as follows:

Sec. 106-236. Speed Limit in School Zones.

- (a) When signs or signs with active warning flashing beacons have been erected to establish a school speed zone, the speed limit in school zones shall be 20 miles per hour 50 minutes prior to the starting of school classes and extending to 30 minutes following the ending of school classes, Monday through Friday, on any street or avenue designated from time to time as a school speed zone, except as otherwise provided in this section. The school board shall certify class times for each school to the traffic engineer prior to the beginning of each school year. The traffic engineer shall have authority to exclude any portion of the school day from the time of speed restriction by posting signs with the time periods to which the speed limit pertains, or signs using active warning flashing beacons displayed only during the time periods to which the speed limit pertains. Also, the traffic engineer shall have authority to exclude any particular school zone or portion thereof from the provisions of this section when he shall find by an engineering study that

the speed restrictions contained in this section are not necessary or desirable. Further, the traffic engineer shall have authority to temporarily exclude any particular school speed zone or portion thereof from the provisions of this section when he shall find that such schools are not in session.

- (b) No person shall operate a motor vehicle in excess of the posted speed limit of 20 miles per hour in a school zone.
- (c) The penalty for violation of this section shall be as provided in Section 1-7 of the City Code, except that the penalty shall, at a minimum, be or include a fine which is double the fine amount for an equivalent speeding violation that occurs outside of a school zone.

For locations outside the Springfield city limits in Greene County: If a location meets the conditions listed above, then a school speed limit may be installed in accordance with Greene County Commission Court Order dated January 6, 2003, "Setting Speed Limits for Public School Zones" (See Appendix C):

- 1. School speed limits shall be set based upon an engineering study that will take into account the current speed limit, school crosswalks, and other factors that directly relate to the safety of students. The school speed limit will typically be set at 10 mph below the current posted speed limit unless an engineering study determines that a lower speed limit is warranted.
- 2. The times during which the school speed limit is in effect shall be 50 minutes prior to the beginning of school to 5 minutes after beginning of school, and 5 minutes prior to ending of school to 40 minutes after ending of school. *

* **NOTE:** The Traffic Engineer has determined that the times during which the school speed limit is in effect within the City of Springfield are the same as those herein specified.

For locations in other jurisdictions: If a location meets the conditions listed above, then the Springfield R-12 School district would make a formal request for the installation of a school speed zone to the appropriate authorities.



SCHOOL SPEED ZONE AHEAD SIGN

A school speed zone ahead sign may be placed in advance of all school speed zones. These signs provide advance notification to motorists to begin slowing down prior to the school zone. It is the practice in the City of Springfield to place the school speed zone ahead sign in advance of all school speed zones.

SCHOOL ZONE FLASHING BEACONS

Flashing warning beacons may be used to supplement other school traffic control signs such as speed limit or crosswalk signs. A time clock shall be used to flash the beacons to alert motorists to the real time conditions with which they must pay special attention. Within the City of Springfield, beacons shall be provided with all reduced school speed limit signs to indicate when the school speed limit is in effect and shall be provided as soon as possible following implementation of a new reduced speed zone, within available resources.

ADVISORY SPEED BOARDS

Trailer mounted portable speed boards may be moved from school to school to reinforce the school speed zone speed limit on a periodic basis. The portable boards function in a manner that when a motorist enters a school zone motorist entering a school zone can see their speed as detected by radar as they approach the school zone. The portable speed boards may be rotated on a scheduled or as requested basis.

TRAFFIC SIGNALS (WITH PEDESTRIAN FEATURES)

The type of school area traffic control used must be related to the volume and speed of traffic, street width, and the number of children crossing. As the volume of traffic increases, the delay to the pedestrian increases between the occurrences of adequate timed gaps in the traffic stream. When the delay becomes excessive, children may become impatient and endanger themselves by attempting to cross the street during an inadequate gap. The delay may be considered excessive when the number of adequate gaps in the traffic stream, during the time period the children are using the crossing, is less than the number of minutes in the same time period. When the adequate gaps occur less frequently than an average of one per minute, an artificial means of creating adequate gaps is necessary to reduce the hazard. See Exhibit A as a guide to determine adequate gap time.

A traffic engineering study must be made to determine the need for the installation of traffic signals. A school signal will be considered for installation where the number of children crossing at a location exceeds the number of adequate gaps in the traffic stream during the period the children are using the crossing and the number of minutes in the same time period.

In general, natural gaps in the traffic stream begin to occur at a frequency less than one per minute when traffic volumes exceed 500 vehicles per hour. For estimating purposes, a traffic signal installation will be considered when traffic volumes exceed 500 vehicles per hour in each of the crossing periods.



If a location meets the warrant for a school signal as specified, the installation of a traffic control signal may be considered provided that:

- a. Signals are more feasible from a practical and economical standpoint than other types of school crossing control.
- b. There is little probability that future changes in school routes or attendance area will eliminate the need for such an installation.
- c. The signal installed solely to provide adequate gaps at school crossings are designed to create a minimum of delay and hazard to vehicular traffic.
- d. Another form of protection would not result in a better handling of the problem. Brief periods during which hazards are unusually high are often better handled by an adult crossing guard.

NOTE: Installation of traffic signals will be completed as soon as possible after approval and appropriation of the necessary funds by the governing jurisdiction. See Appendix for instructions in the meaning of pedestrian traffic signals and the use of the pushbutton.



COUNTDOWN PEDESTRIAN SIGNAL HEADS

Countdown Pedestrian Signals are electronic devices which are approved in the MUTCD for use in place of the traditional Pedestrian Traffic Signals, those with word or symbol messages for WALK and DON'T WALK. The device displays the amount of time in seconds remaining to complete crossing of a street following display of the WALK light or walking person symbol. Each agency with jurisdiction for controlling traffic signals may use this special signal as determined by their own policies. At traffic signals under City of Springfield jurisdiction, pedestrian countdown signal heads shall be used at marked crosswalks at school signals. Timing of the WALK and DON'T WALK intervals shall be in

accordance with the latest edition of or amendments to the MUTCD.

ADULT CROSSING GUARDS

Adult crossing guards are employed at highly challenging school crossings to assist children in developing safe crossing habits, to inform children of potential hazards which exist at these locations, and to help to prevent children from crossing at inappropriate locations. Adult guards should not attempt to direct traffic. Instead, they should pick opportune times when there is an adequate gap in the flow of traffic sufficient to permit the group of children to cross. At these times, their presence in the roadway serves to indicate to motorists that children are about to use the crosswalk and that approaching traffic must stop.

Adult crossing guards will be considered at a painted crosswalk where special traffic conditions exist that can be better handled by an adult. These conditions include complicated intersections, heavy vehicular turning movements, high vehicular approach speeds, and an extraordinarily high volume of heavy truck traffic. The existence of these special conditions will be determined and an adult crossing guard considered at locations that meet the following criteria:

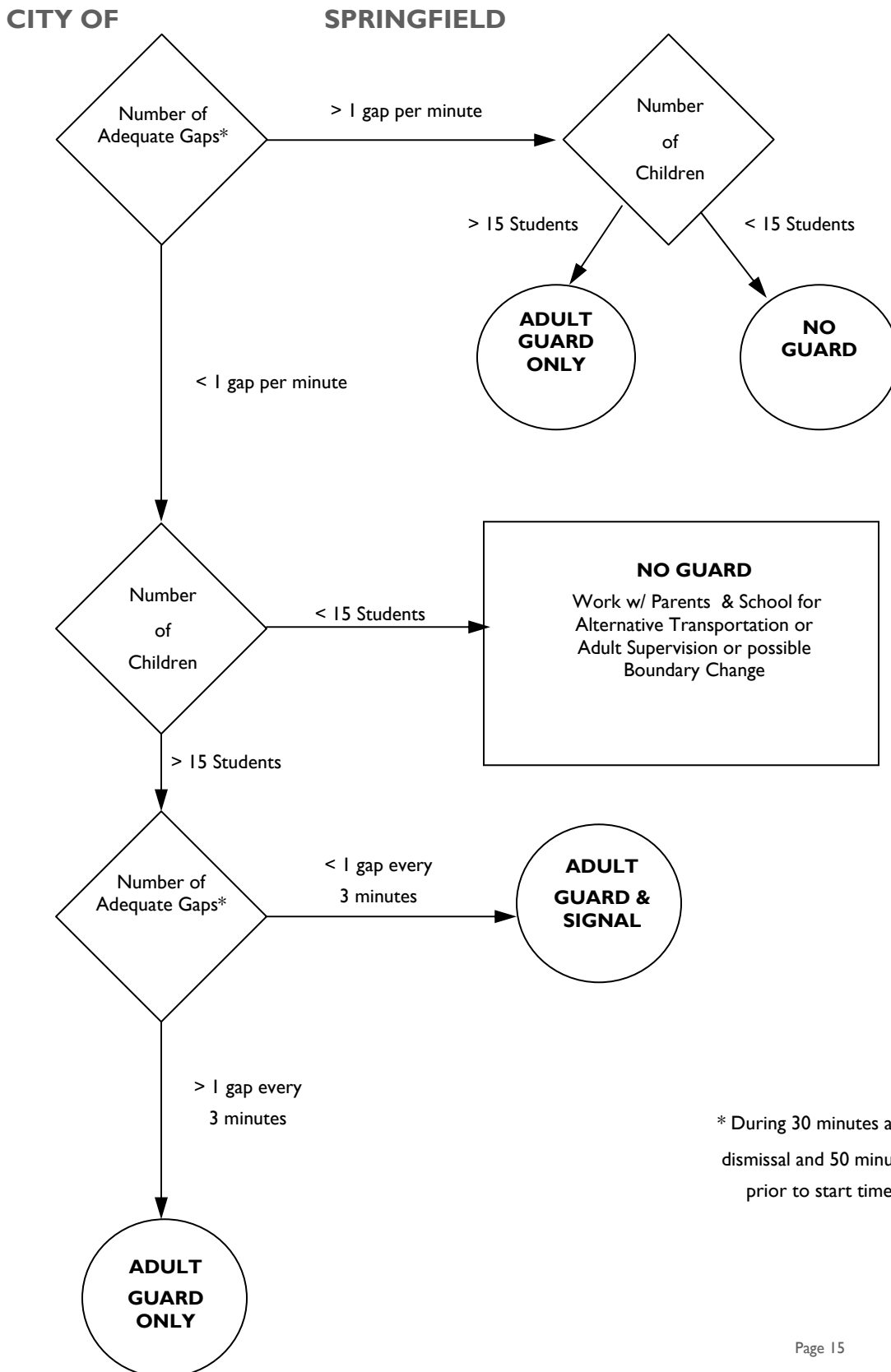
- a. At all painted crosswalks across Missouri Department of Transportation maintained routes. (A formal agreement with MoDOT is required to mark a crosswalk that commits the local government agency to provide an adult crossing guard.)
- b. At any painted crosswalk where the requirements for a traffic signal as indicated above are met but due to unusual conditions, it is determined that an adult guard can provide better control of both children and vehicular traffic.
- c. At any location where there are 15 or more children crossing a street with fewer than one adequate gap per minute during the crossing period.

If a location meets the warrants for an adult crossing guard as specified, the placement of the guard may be considered provided that:

- a. An adult crossing guard is more feasible and economical than either a pedestrian grade separation structure or a traffic control signal specially installed to handle the crossing.
- b. Necessary funds are appropriated by City Council, Greene County Commission, or others.
- c. The adult crossing guard has been properly trained.



NOTES: Exhibit B graphically displays the criteria used for placement of an adult crossing guard within the City of Springfield. Placement of the adult crossing guard warranted as specified above will be accomplished as soon as possible after approval and appropriation of necessary funds by the governing jurisdiction



WARRANT FOR ADULT CROSSING GUARD

EXHIBIT B

TRAINING OF ADULT CROSSING GUARDS

In the month of August, prior to the start of the school year, adult crossing guards working any crossing in the Springfield R-12 School District will meet for a training session conducted by the Springfield Police Department, Traffic Engineering Division, and the Springfield R-12 School District. A separate training



manual has been developed for use with the training sessions. The guards are instructed on the procedure to cross the school children at controlled and uncontrolled crosswalks and provided with necessary safety equipment.



PEDESTRIAN OVERPASS

Pedestrian overpasses provide for physical separation of the crossing of a very heavy volume of school pedestrian traffic and a heavy vehicular flow. Grade-separated crossings should be considered only when the physical characteristics of the location make such a structure feasible from an engineering standpoint and should only be constructed when the crossing problem cannot be solved in some simpler and more economical manner. If the use of the overpass is substantially

less convenient than an at-grade crossing, barriers or supervision will be needed to assure a satisfactory level of usage.

Since overpass structures form a permanent solution to the school crossing problem, the following criteria should be met:

- a. Structure is economically justified from a long-range standpoint.
- b. Initial cost of such an improvement does not limit available funds to the point where other essential school crossing protection is neglected.
- c. Such a structure will serve other pedestrians besides school children.
- d. There is no probability that future changes of school routes or attendance area will eliminate the need for such a structure.
- e. The general conditions that require the overpass are sufficiently permanent to justify such a structure.
- f. The physical conditions of the location make such a structure feasible from an engineering standpoint.
- g. The structure is located to be more attractive to pedestrians than paths available at grade. Barriers may be required along the roadway to control/encourage usage.

NOTE: Installation of warranted pedestrian overpasses would be programmed for the construction as soon as possible within the funding capability of the City of Springfield's Capital Improvement Program or within the funding capability of the respective jurisdiction.

MAINTENANCE OF SIGNS AND MARKINGS

Regulatory and warning signs for school zones and crosswalks should be inspected by the respective jurisdiction. Annual inspections occur at the end of the school year so maintenance activities can be scheduled during the summer. Additional inspections are conducted upon special requests. All school crosswalks, stop bars, and adult crossing guard lines are refreshed as needed during the summer months to improve their visibility.

CHAPTER

6

If the use of the school building or traffic patterns change a specific school, i.e. start and dismissal times, the R-12 School District will notify the City Traffic Engineer or Greene County Highway Administrator. Signs will be changed or removed based on the changes occurring to the school, i.e. school closing or start time change.

PROCEDURE FOR REQUESTING ADDITIONAL CROSSING PROTECTION

Requests for additional protection at various school crossings are inevitable despite all attempts to be uniform in the administration of a school crossing protection program.

Traffic conditions are characteristically dynamic and constantly changing, thus making it difficult for school and city officials to be knowledgeable of every new crossing problem as it develops.

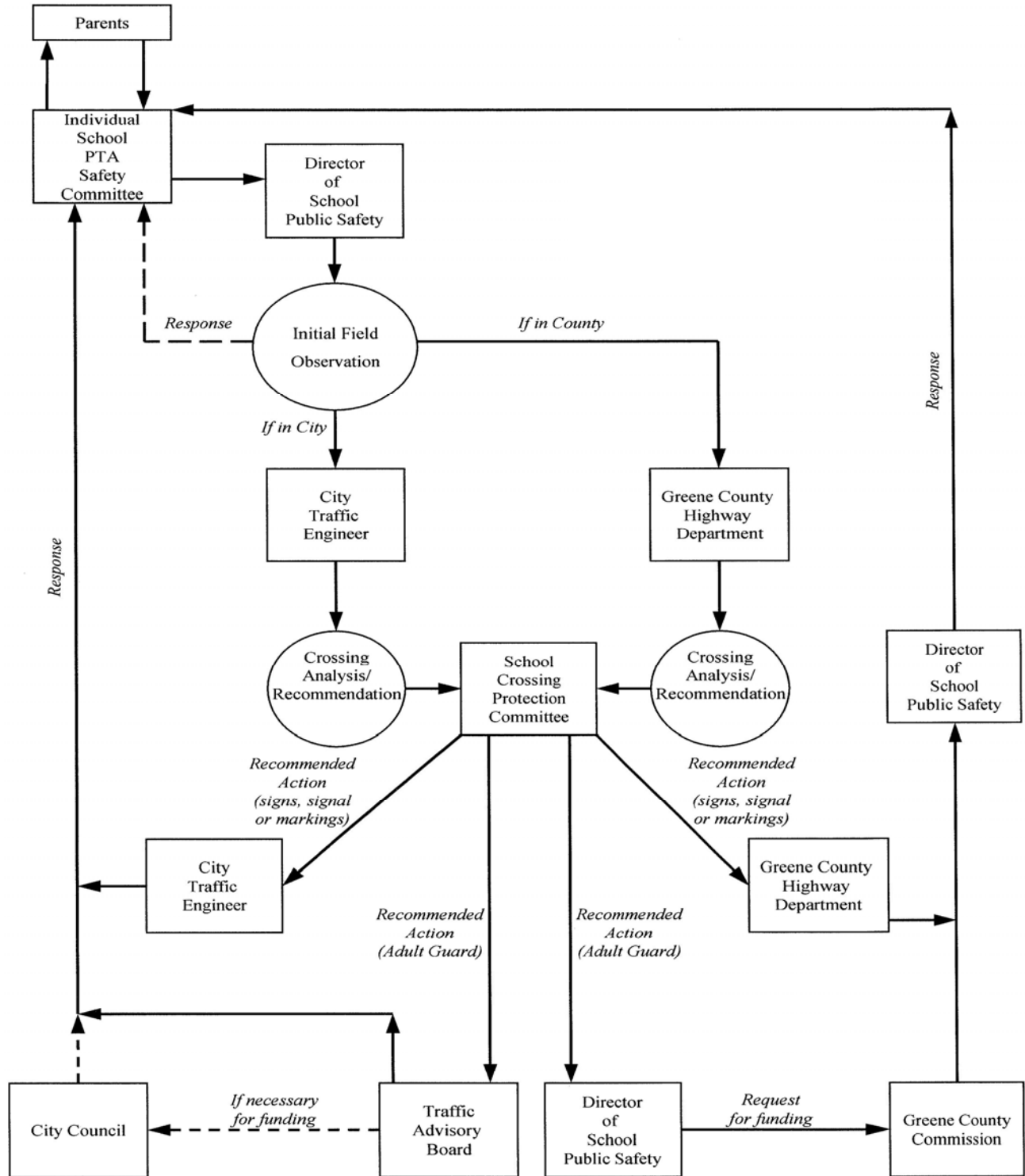
Since the parents residing in a school district are often most familiar with the traffic problems in the area on a daily basis and the individuals most familiar with crossing problems encountered by their children, parents are instrumental in obtaining additional school crossing protection. Each school should have a PTA Safety Committee and a Committee Chairman to coordinate all safety problems of the school. The parents, working through the school PTA Safety Committee, have a forum to discuss crossing safety problems and can often solve many problems working through the PTA organization alone. However, those problems which cannot be solved at this level should be brought to the Springfield R-12 Director of School Public Safety in the way of a formal request.

Often, the Director of School Public Safety can answer the request or solve the problem directly. If his field observation of the problem indicates that a potential problem exists, then he requests the City of Springfield's Traffic Engineering Division or the Greene County Highway Department, whichever has jurisdiction, to make a formal engineering study. Concurrently, the Director performs a student analysis consisting of determining the number of potential students to cross at the subject location, where they live, and their ages.

If within the City of Springfield. Upon completion of these analyses, the Springfield Traffic Engineer and the Director of School Public Safety formulate a recommendation to approve or deny the request for the additional crossing protection. This recommendation is brought to the School Crossing Protection Committee who reviews the study report with uniformity of protection from attendance area to attendance area of utmost concern. The recommendation of this Committee is forwarded to the Springfield Traffic Advisory Board who reviews the study report and recommendation with a uniformity of protection within the total city traffic program of utmost concern. The Board reflects the attitude of the general public toward acceptability of the proposed solution and acts to approve or disapprove the request. As necessary, City Council must review the requests for new crossing protection if an appropriation of funds is required. This procedure has been established to minimize the number of requests which must be acted on directly by Council and the decisions of the Traffic Advisory Board have been supported.

If the Traffic Advisory Board denies approval of additional crossing protection, the request would ordinarily be considered satisfied. However, this procedure is not intended to prohibit a direct request to City Council to overrule a decision of the Board if those persons initiating the request do not feel that the investigation was fairly and uniformly handled.

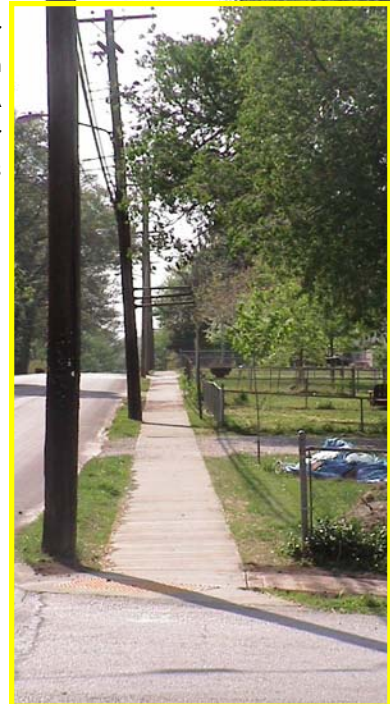
If outside the city limits. Upon completion of the analysis, the Greene County Highway Administrator and the Director of School Public Safety formulate a recommendation to approve or deny the request for the additional crossing protection. This recommendation is brought to the School Crossing Protection Committee who reviews the study report with uniformity of protection from attendance area to attendance area of utmost concern. The recommendation of this Committee is forwarded to the Springfield R-12 School District who reviews the study report with respect to conformity with School District responsibilities and policies. If the District concurs with the findings of the Committee, the proposal will be submitted to Greene County for review and possible approval or disapproval of the request. As necessary, the Greene County Commission must review the requests for new crossing protection if an appropriation of funds is required and/or a formal agreement or amendment to an agreement between Greene County and the R-12 School District is required.



CHAPTER
7EXHIBIT C
PROCEDURE TO REQUEST SCHOOL CROSSING
PROTECTION UNDER
CITY OF SPRINGFIELD OR GREENE COUNTY
JURISDICTION**S**IDEWALKS

The R-12 School District is responsible for the installation of sidewalks on the frontage to each school. Installation of sidewalks on streets other than on the frontage to a school are the responsibility of the City of Springfield within their city limits, Greene County, or other jurisdiction. The City of Springfield has included school sidewalk construction in their Capital Improvement Programs since 1989. Individual School PTA organizations are responsible for determining the need for sidewalk in their attendance area and to set priorities for construction. The following principles have been followed in developing the sidewalk system:

1. Build sidewalks outward from the school.
2. Provide for continuity of sidewalks.
3. Construct sidewalks in accordance with the walking route plans for the respective school area.
4. Sidewalks should be provided on both sides of collector and arterial streets to minimize the points of street crossings.
5. Make greatest use of crossings with existing traffic control protection.

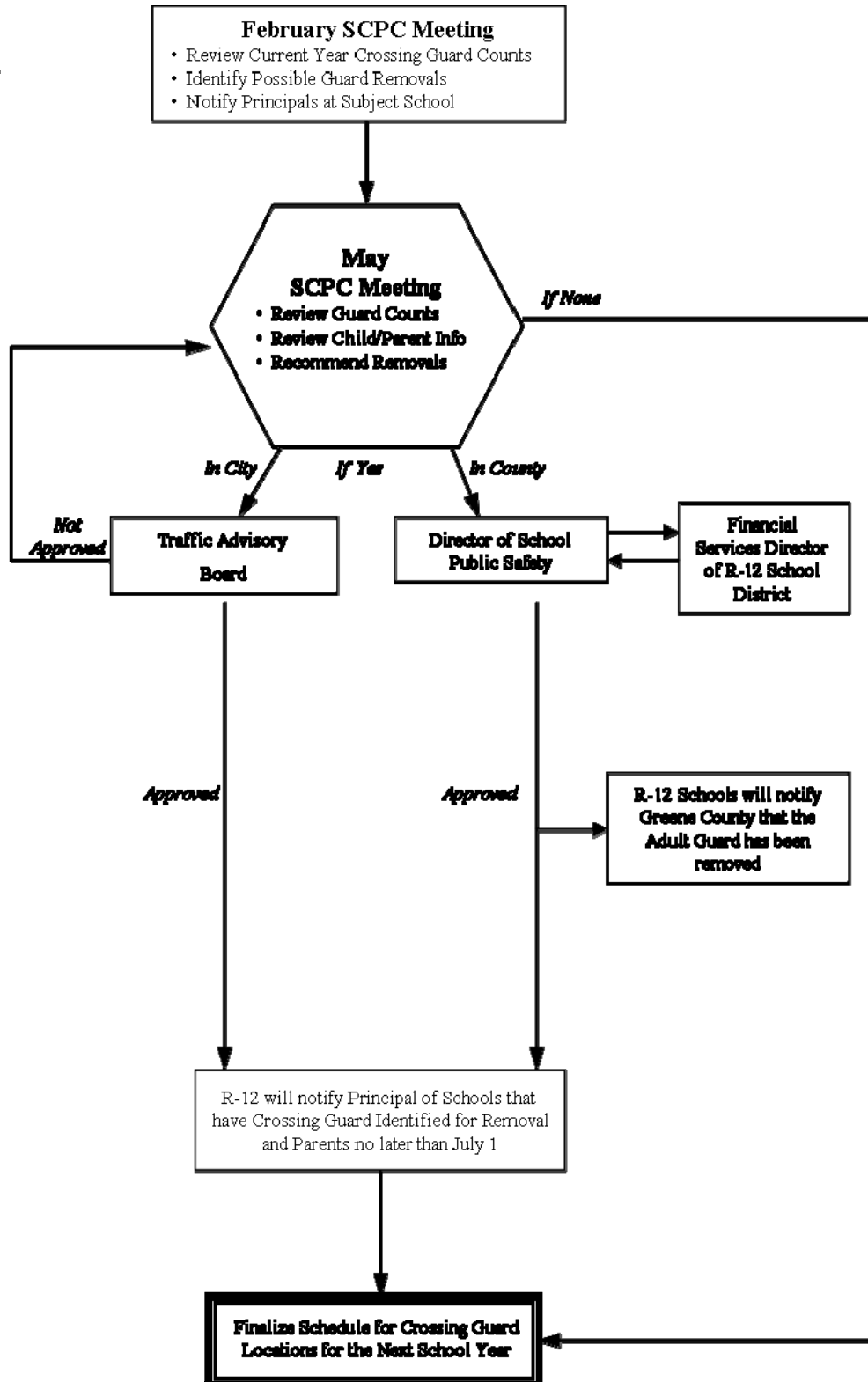


REMOVAL OF CROSSING GUARDS

When the number of children crossing at a specific location during the afternoon crossing period routinely falls to fewer than five (5), the crossing will be reviewed for possible elimination. It is a rare situation where there would be more children crossing in the morning crossing period but if this occurs, this number will be used for crossing decisions. Potential for a return to greater than five walkers per crossing period in the future may be sufficient to retain a guard. However, it is a far more cost effective use of resources to work with the school and to make the necessary accommodations to walk with their child or transport them or arrange for other adult assistance following removal of the guard. Once the school year starts in August, no guards will be removed without special conditions permitting or requiring an exception to this policy.

EXHIBIT

D



CHAPTER 9

PROCEDURE FOR REMOVAL OF ADULT CROSSING GUARD UNDER CITY OF SPRINGFIELD OR GREENE COUNTY JURISDICTION

BARRIER STREETS

The best protection for children going to and from school is provided when the children do not have to cross a heavily traveled street at all. Streets with a high traffic volume, speed and/or width may be considered Barrier Streets from the standpoint of evaluation of crossing protection. Any street with a functional classification of Expressway or Primary Arterial on the Springfield Major Thoroughfare Plan would also be considered a barrier street for that reason alone. A street with a speed limit of 45 mph or more and/or a traffic volume of 30,000 vehicles per day would be considered a barrier street. Every effort should be made to eliminate the need for children to cross these types of streets which are difficult for an adult to cross, even at a signalized crossing. The crossing may be eliminated by:



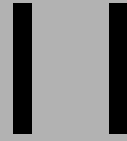
1. Change in school boundary which aligns with the major street;
2. Provision of a pedestrian overpass or a street overpass with sidewalk provisions;
3. Elimination of the crossing guard when the number of children crossing is consistently five or less (See process for elimination of a crossing guard in Chapter 8); or
4. Provision of Busing. Consistent with Springfield R-12 policies, the District will make available bus transportation across a designated barrier street for students living within the normal busing limit.

CHAPTER
10

SPECIAL CONDITIONS

Although it is the policy to treat Middle School and High School students as adults with respect to school crossing protection, there may be special conditions such as the presence of a barrier street or large number of pedestrian crossings that would require special consideration. It is recognized that these special conditions are to be evaluated and appropriate measures consistent with accommodation of adults under similar conditions may need to be considered.

CHAPTER



SUMMER SCHOOL PRACTICES

School signals will continue in operation within the Springfield city limits during summer months to serve a school that has a summer school program. Often summer school start and dismissal times are considerably different than the normal school year schedule. Normally it is considered too confusing to motorists and unrealistic expectation for enforcement to continue to have school speed zones in effect during the summer months. In addition, adult crossing guards are not normally provided for summer school programs. Parents that permit children to walk to and from a summer school program need to be aware of this policy. School speed limit signs will normally be covered or taken out of operation during the summer months in the city limits of Springfield.

A MENDMENTS / REVISIONS

AMENDMENTS/REVISIONS OF DOCUMENT

The School Crossing Committee is empowered to make revisions to the manual which have a consensus of approval (without significant objection) by the voting members of the committee. Revisions to the manual which cannot be resolved by the committee or require general public notice and input shall be taken to the governing body for each agency for formal approval.

ANNUAL REVIEW

The School Crossing Committee will review this document on an annual basis and take action on proposed additions/ revisions or reconfirm the manual without changes during their May meeting. Upon completion of the review and incorporation of approved changes, if any, the document will be reprinted with a summary of changes referenced inside the document with the date of the latest review and/or revisions shown on the cover.

MAINTENANCE OF THE DOCUMENT

Copies of the adopted manual will be distributed to the respective agencies for their records, filing and posting for public viewing/information. A copy of the most recently approved document will be transmitted to the City Clerk for the City of Springfield, the County Clerk for Greene County, and the Superintendent of Schools for the Springfield R-12 School District for retention in their files.

C ONCLUSION

The solution to the safety of the young child on his/her way to and from school does not rest entirely in the strict control of street vehicular traffic. Rather, the solution lies in the development of safe driving practices and proper walking habits and knowledge of the hazards which exist on every street. A sound safety educational program in the home and school will contribute much more toward the protection of our children, through development of their own initiative and their own vigilance rather than the dependence on protective devices alone.

APPENDIX A

CONTACT INFORMATION

City of Springfield

I. Public Works - Traffic Engineering

Signs and Marking

Project Engineer864-1980
 Walking Route Maps.....<http://www.springfieldmo.gov/school>

Traffic Signals

Timing

Professional Engineer - Signal System.....864-1980

Malfunction

Supervisor of Signal Operations.....864-1977

II. Public Works - Street Maintenance

Snow Removal

Public Works Operations Dispatcher.....864-1965

III. Police Department

City Crossing Guard Coordinator874-1201 Voice mailbox 44101#

Traffic Lieutenant864-1723

Traffic Sergeant864-1757

Emergency/Police Dispatcher 911

Springfield Public Schools

SPS Dispatch Center523-2911

Director of School Police Services523-2917

County Crossing Guards.....523-6911

Greene County Highway Department

Signs and Markings

Greene County Highway Administrator.....831-3591

Snow Removal

Operations Coordinator829-6532

Missouri Department of Transportation

Signs, Markings, & Traffic Signals

Traffic Operations Engineer895—7600

APPENDIX B

Pedestrian Signals

What do the symbols mean?

STEADY
DON'T WALK



DON'T CROSS

STEADY
WALK



START CROSSING
(Watch for Vehicles)

FLASHING
DON'T WALK



DON'T START
(Finish Crossing if
You've Already Begun)

What do the numbers mean?



"COUNTDOWN" PEDESTRIAN SIGNAL

The numbers show how many seconds remain to complete walking in the crosswalk. The countdown starts with the FLASHING DON'T WALK signal and continues counting down to the DON'T WALK signal.

Tips for Crossing the Street

- Look for a push button in the direction you wish to cross. If there is one, PUSH IT.
- Wait for the WALK signal before you cross.
- LOOK BOTH WAYS before crossing.
- Walk briskly, but DON'T run.
- Watch for turning cars.
- If the FLASHING DON'T WALK signal begins, continue to cross. Do not panic. There is enough time to finish crossing safely. If you haven't started crossing, DON'T start. Push the button and wait for the next WALK signal.

Frequently Asked Questions

? Why is the FLASHING DON'T WALK longer than the WALK?

The WALK signal lasts long enough to get everyone started crossing. The FLASHING DON'T WALK must last long enough for everyone who has just started crossing to finish, so it stays on longer to allow pedestrians to completely cross the street.

? Do I have to push the button?

Yes, if a button is present, it must be pushed to activate the pedestrian signal. If there is more than one button, look for the button that indicates the direction you wish to cross. At intersections with no buttons, the WALK signal will be displayed on every cycle.

? What does the button do?

The button tells the traffic controller that you would like to cross. If the button is not pushed, the WALK signal will not be activated. By activating the walk signal, the maximum crossing time is assured for pedestrians.

? What if I have questions?

If you have questions, or believe that a pedestrian signal is not operating properly, please call Traffic Engineering at 864-1980.

APPENDIX C

10-HWY

ORDER
of the
GREENE COUNTY COMMISSION
SPRINGFIELD, MISSOURI

DATE ISSUED: April 5, 2010

SUBJECT: Amendment to Greene County Commission Order dated January 6, 2003 regarding Setting Times Which School Speed Limits Shall Be in Effect

On this 5th day of April 2010, the Greene County Commission takes up the matter of amending Item 2 in the Greene County Commission Order dated January 6, 2003 regarding the times during which school speed limits are in effect.

The Greene County Commission hereby states that appropriate notices have been given and public hearings held on March 1, 2010, March 15, 2010, and April 5, 2010 in accordance with the Revised Statutes of the State of Missouri Section 304.130.

Whereas, public comment has been offered to and received by the Greene County Commission, and after discussion and a recommendation for approval by Dan Smith, Highway Administrator, the members of the Greene County Commission hereby approve the following policy for setting the times during which school speed limits are in effect:









The school speed limit zones shall be in effect when the school speed zone flashers are in operation or as stated on each specific school speed limit zone sign. The flashers shall be in operation: (1) Prior to the commencement of school classes; (2) Following the conclusion of school classes; and (3) Prior to and following the conclusion of special school events.

Upon motion duly made, seconded, and unanimously carried, this Order was adopted and shall be distributed for public use and appropriate action shall be taken.

THE GREENE COUNTY COMMISSION

		
David L. Coonrod Presiding Commissioner	Harold Bengsch Commissioner District 1	Roseann Bentley Commissioner District 2

APPENDIX D

SUNSHINE ELEMENTARY		SCHOOL YEAR 2008-2009	
WALKING ROUTE *			
Legend  1/2 MILE RADIUS  SCHOOL CROSSWALK  SCHOOL BOUNDARY  WALKING ROUTE W/SIDEWALK  WALKING ROUTE NO SIDEWALK  BARRIER STREET  SIGNAL		School Times Start 8:15 am Dismissal 3:00 pm	



DISCLAIMER: All information included on this map or digital file is provided "as is" for general information purposes only. The City of Springfield, and all other contributing data suppliers, make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the data for any particular use. Furthermore, the City of Springfield, and all other contributing data suppliers, assume no liability whatsoever associated with the use or misuse of the data.

APPENDIX E

Pub. Imp. _____
Govt. Grnt. _____
Emer. _____
P. Hrngs. _____
Pgs. 35
Filed: 5-23-06

Sponsored by: Carlson

COUNCIL BILL NO. 2006-194

RESOLUTION NO. 9381

A RESOLUTION

ENDORISING the revisions in the Traffic Control Manual for School Crossing Protection.

WHEREAS, in June 1973 the City Council for the City of Springfield, MO and the Springfield R-12 School District adopted the City's first Traffic Control Manual for School Crossing Protection, establishing acceptable uniform methods for school pedestrian related traffic controls; and

WHEREAS, this Manual was modified and endorsed in 1978, and again in 1995, and this modified Manual is currently being used to guide the school crossing protection program; and

WHEREAS, the School Crossing Protection Committee reviewed the 1995 Manual and this Committee, along with the Traffic Advisory Board, have endorsed the changes shown in "Exhibit A," and summarized in "Exhibit B," which are both attached to the Explanation Sheet of this Resolution.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Springfield as follows:

That the City Council of the City of Springfield, Missouri, endorses the revisions in the Traffic Control Manual for School Crossing Protection as shown in "Exhibit A," which is attached to the Explanation Sheet for this Resolution and is incorporated herein by reference.

Passed at meeting: May 30, 2006

Thomas Carlson
Mayor

Attest: Brenda M. Gitt, City Clerk

Filed as Resolution May 30, 2006

Approved as to form: [Signature] ^{Assist} City Attorney

Approved for Council action: [Signature], City Manager

APPENDIX F

06-HWY

ORDER
of the
GREENE COUNTY COMMISSION
SPRINGFIELD, MISSOURI

DATE ISSUED: June 19, 2006


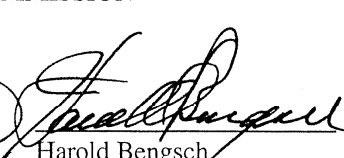
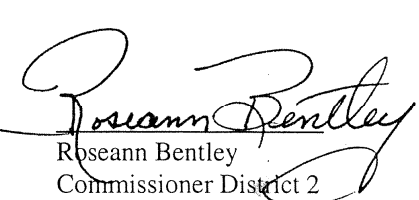
SUBJECT: Adoption of the School Crossing Protection Committee
Traffic Control Manual

WHEREAS, the *Traffic Control Manual for School Crossing Protection* was originally developed in 1973 in order to provide uniformity in the methods of traffic control within a community and from one community to another in the development of successful school crossing safety programs; and

WHEREAS, The *Traffic Control Manual for School Crossing Protection* has been revised to improve and strengthen the guidelines and procedures necessary for a successful school crossing safety program;

NOW, THEREFORE, the Greene County Commission did this date vote to officially adopt the revisions to *Traffic Control Manual for School Crossing Protection* effective June 19, 2006.

THE GREENE COUNTY COMMISSION

		
David L. Coonrod Presiding Commissioner	Harold Bengsch Commissioner District 1	Roseann Bentley Commissioner District 2

APPENDIX G

Revisions in the 2010-2011 Traffic Control Manual for School Crossing Protection

FORWARD

Paragraph 3

2009-2010 Version: Since the 2006-2007 school year, the manual has been reviewed annually with minor revisions approved by the School Crossing Protections Committee administratively. A listing of revisions for the 2009-2010 school year is attached as Appendix G.

Changed To: Version: Since the 2006-2007 school year, the manual has been reviewed annually with minor revisions approved by the School Crossing Protections Committee administratively. A listing of revisions for the 2010-2011 school year is attached as Appendix G.

Paragraph 4

2009-2010 Version: ... successful for over 35 years ...

Changed to: nearly 40 years ...

CHAPTER 5: SCHOOL CROSSING PROTECTION

"School Speed Zone"

2009-2010 Version: (a) When signs have been erected, the speed limit in school zones shall be 20 miles per hour 30 minutes prior to the starting of school classes and extending to 30 minutes following the ending of school classes, Monday through Friday, on any street or avenue designated from time to time as a school zone, except as otherwise provided in this section. The school board shall certify class times for each school to the traffic engineer prior to the beginning of each school year. The traffic engineer shall have authority to exclude any portion of the school day from the time of speed restriction by posting of those time periods to which the speed limit pertains, or by displaying the speed limit only during the time periods to which it pertains. Also, the traffic engineer shall have authority to exclude any particular school zone or portion thereof from the provisions of this section when he shall find by an engineering study that the speed restrictions contained in this section are not necessary or desirable. Further, the traffic engineer shall have authority to temporarily exclude any particular school zone or portion thereof from the provisions of this section when he shall find that by reason of holidays or summer vacation periods such schools are not in session.

Changed To: (a) When signs or signs with active warning flashing beacons have been erected to establish a school speed zone, the speed limit in school zones shall be 20 miles per hour 50 minutes prior to the starting of school classes and extending to 30 minutes following the ending of school classes, Monday through Friday, on any street or avenue designated from time to time as a school speed zone, except as otherwise provided in this section. The school board shall certify class times for each school to the traffic engineer prior to the beginning of each school year. The traffic engineer shall have authority to exclude any portion of the school day from the time of speed restriction by posting signs with the time periods to which the speed limit pertains, or signs using active warning flashing

APPENDIX G

(continued)

Revisions in the 2010-2011 Traffic Control Manual for School Crossing Protection

beacons displayed only during the time periods to which the speed limit pertains. Also, the traffic engineer shall have authority to exclude any particular school zone or portion thereof from the provisions of this section when he shall find by an engineering study that the speed restrictions contained in this section are not necessary or desirable. Further, the traffic engineer shall have authority to temporarily exclude any particular school speed zone or portion thereof from the provisions of this section when he shall find that such schools are not in session.

2009-2010 Version: **For locations outside the Springfield city limits in Greene County:** If a location meets the conditions listed above, then a school speed limit may be installed in accordance with Greene County Commission Court Order dated January 6, 2003, "Setting Speed Limits for Public School Zones" (See Appendix C):

School speed limits shall be set based upon an engineering study that will take into account the current speed limit, school crosswalks, and other factors that directly relate to the safety of students. The school speed limit will typically be set at 10 mph below the current posted speed limit unless an engineering study determines that a lower speed limit is warranted. The times during which the school speed limit is in effect shall be 30 minutes prior to the beginning of school to 15 minutes after beginning of school, and 15 minutes prior to ending of school to 30 minutes after ending of school.

Changed To: **For locations outside the Springfield city limits in Greene County:** If a location meets the conditions listed above, then a school speed limit may be installed in accordance with Greene County Commission Court Order dated April 5, 2010, "Setting Times Which School Speed Limits Shall be in Effect" (See Appendix C):

School speed limits shall be set based upon an engineering study that will take into account the current speed limit, school crosswalks, and other factors that directly relate to the safety of students. The school speed limit will typically be set at 10 mph below the current posted speed limit unless an engineering study determines that a lower speed limit is warranted. The times during which the school speed limit is in effect shall be 50 minutes prior to the beginning of school to 5 minutes after beginning of school, and 5 minutes prior to ending of school to 40 minutes after ending of school.

"Warrant for Adult Crossing Guard"

2009-2010 Version: * During 30 minutes after dismissal and 45 minutes prior to start time

Changed To: * During 30 minutes after dismissal and 50 minutes prior to start time

APPENDIX A: PHONE NUMBER FOR COUNTRY CROSSING GUARDS CHANGED TO: 523 6911

APPENDIX C: ORDER OF THE GREENE COUNTY COMMISSION, SPRINGFIELD, MO