

Selecting Bus Stop Locations Best Practices

There is no perfect school bus stop, because it is impossible to eliminate all potential hazards, but guidelines and training are still necessary to ensure that responsible parties are making the safest, most informed decisions when placing stops. Street-side characteristics include the conditions on the road where the school bus stops to load and unload students. To provide the safest environment for students to walk between home and the school bus stop and wait at the stop:

- Pick routes on streets with lower traffic volumes and lower speeds. •
- Minimize or avoid multi-lane roads where pedestrians are most at risk of injury. ٠
- Pick roads with sidewalks or designated pedestrian paths separate from the roadway and ٠ traffic. If these are not available, pick roads with sufficient space to walk along the roadway to reach the stop.
- Avoid or limit stops that require the school bus to make a left turn anywhere along the route.
- Avoid stops that require backing up. If backing up is unavoidable, pick up students before • backing. During the afternoon return trip, drop off the students only after backing up and being in position to drive forward.
- Avoid railroad crossings along the bus route. If it is impossible to avoid crossings, signage • and railroad crossing arm protection should be present.
- Select stops that provide sufficient visibility for both pedestrians and drivers. There needs • to be enough sight distance so drivers, bus drivers, and students waiting at the stop all can see each other. There are no standardized distance measures that provide sufficient visibility nor are there formulas for computing an appropriate sight distance, but the following can impact sight distances:
 - Sunrise/sunset times (Try to avoid placing stops where vehicles will be facing into the sun at pick-up or drop-off times.)
 - Curves and hills
 - Trees and other vegetation
 - On-street parked cars and approaching vehicles
 - Snow drifts from snowplows

In addition to the on-street characteristics, characteristics about the off-street location of the school bus stop are also critical to ensuring student safety during transport to school. For the safest areas for students to wait for, and load onto or off of the bus:

- Choose "door-side" stops whenever possible.
- Minimize the need for students to cross a road from the stop to the bus regardless of the type of roadway.
- Students must not cross multi-lane roads where all traffic is not controlled by the presence of a school bus stop arm and flashing lights.
- Pick locations that offer adequate lighting. If students will be waiting during low light hours, the stop should be positioned near a street light or other light source whenever possible.
- Choose locations with sufficient space for students and parents to wait at least 12 feet from the roadway. This distance is recommended based on the "12-foot rule" for students approaching and leaving the bus included in the National School Transportation Specifications and Procedures 2005 Revised Edition.
- Consider the surrounding environment. Commercial businesses and parks offer benefits and drawbacks. While they can confer safety because drivers may be more likely to expect pedestrians in these areas, they also can distract children from being ready to load when the bus arrives.
- Choose locations that provide protection from weather. Depending on the geographical region:
 - Establish stops that offer shade without sacrificing visibility.
 - Avoid areas where snow drifts will reduce visibility or access to the bus.
- Determine policies for mid-block stops compared to corner stops. Whether a stop is located mid-block or on a corner does not have the same impact on safety as other factors described here, but this is a policy decision that must be taken into consideration. The Transit Cooperative Research Program's "Guidelines for the Location and Design of Bus Stops" describes advantages and disadvantages of mid-block, door side and far side stops, but this report, focused on public transit, assumes pedestrians cross behind the bus whereas students are taught to cross in front of the bus. Both far-side corner (the corner past the intersection) and door-side corner (the corner located prior to the intersection) stops can impact sight distance.

• Group stops should be determined by a set of criteria requirements in determining safe paths of travel for each student. The driver should also know where each student is coming from and that none are crossing before the bus arrives at the stop.

Additional information can be found using the National Highway Traffic Safety Administration publication Selecting School Bus Stop Locations located at nhtsa.gov.

PUTTING THE GUIDELINES INTO PRACTICE

While school transportation directors and others involved in route planning need some flexibility in making decisions to evaluate local conditions and individual cases, standardizing the criteria used in decision-making helps create a transparent, explainable process. A systematic process may be easier to explain to school administration, the public, and parents and does not rely on subjective "common sense" determinations, which can vary widely depending on the transportation director. However, processes and policies are only useful in improving student safety if they are implemented. It is critical that local schools and school districts establish policies for school bus routing and the placement of school bus stops. Some school districts contract pupil transportation services to a private school bus company. Ultimately the decisions of where to place a school bus stop should be made by the local school transportation director or school administration.

ENGAGE AVAILABLE RESOURCES

School transportation planners should engage local law enforcement officers and transportation authorities that have jurisdiction over roads along, or adjacent to, school bus routes. Law enforcement officers can share data related to crashes and speeding prevalence that may indicate areas to avoid when possible. They will also know the traffic patterns on local roadways, such as the most common types of vehicles, traffic flow irregularities, or other particularly dangerous situations that should be avoided. The use of these resources in addition to school administration is imperative in the case of a "bad stop" where there seems to be no resolution to make it safe. In these cases documentation of the use of these resources should be kept in the route file in the event of litigation. Transportation authorities, who may be the Department of Transportation or the local traffic engineer, can provide information about the relative traffic volume and condition of different roads. These agencies not only are responsible for signage that could indicate an upcoming school bus stop and speed limit designation, but they also can provide information on limits to possible engineering treatments and hazard mitigations based on the MUTCD. If not already utilized, school transportation planners should consider technology-assisted route development. Many school districts use route-planning software or GIS mapping. While these systems often offer benefits like improved efficiency, they can be limited in their role in selection of school bus stops. Care must be taken not to place a higher priority on efficiency than safety. For example, locating a school bus stop on a secondary street may remove the bus from an arterial that offers a more direct route, but the

location also allows students to stand on a lower speed street with less traffic. Refer to the "National School Transportation Specifications and Procedures 2005 Revised Edition".

PLAN TO ADDRESS PARENT AND COMMUNITY CONCERNS

School administration and transportation planners need to plan ahead to address parent and community member concerns. A clearly described appeal process will allow for efficient handling of concerns. At the same time, adopting and documenting the use of a consistent set of criteria for school bus stop selection will make it easier to justify district decisions about stop locations.

Safety is the primary consideration when evaluating a parent's complaint, not personal circumstances or convenience. Nevertheless, people involved in evaluating such situations usually recognize that all of these considerations may go hand-in-hand. Most districts recognize some issues and include specific language in their policies related to selecting school bus stops for children with special needs, homeless children and children who live along routes deemed hazardous, both within and outside of eligible transportation zones.

Several factors can reduce the number of appeals that school transportation planners may face. Some appeals can be avoided when districts have a clearly stated policy and policy rationale, a monitoring process in place, and an open atmosphere where school bus drivers feel comfortable reporting safety issues to supervisors at any time during the school year. A monitoring process could include a hazardous route checklist that drivers use at the beginning of the school year after routes are set but before school starts. Alternately, the transportation director could perform "ride-alongs" at different points during the school year to assess school bus route and stop conditions.

Some districts annually evaluate the student pedestrian population and their safety to and from school; some do not evaluate this population at all. While most school districts consider the safety of the route between home and the school bus stop, the specificity of what is meant by "safe route" between home and the school bus stop varies between school districts and even within topics (e.g., distance, identified hazards, traffic conditions). Again, developing consistent criteria and an assessment process (such as use of a walkability checklist) can help improve safety for students.

WORK WITH THE SCHOOL TO EDUCATE PARENTS

Parents can benefit from a reminder to consider the safety of their child's route between the school bus stop and home and their role. Parents often overestimate their child's readiness to walk alone. Parents need to assess the route from home to the school bus stop so that they can determine if their child needs to be accompanied on the route.

School transportation planners should encourage parents to walk with young students or rotate duties with other parents. Walking to the school bus stop with their child is a chance for parents to assess and teach pedestrian safety skills.

Parents with disabilities are sometimes given special considerations, and their children's school bus stops may be placed at, or very near, their houses since they may not be able to accompany their child to a stop away from the house. Children with special needs who do not receive special transportation may need to be picked up at the curb closest to home. Though these may be desirable practices, and perhaps required under a student's Individualized Education Program (IEP), schools must be prepared to educate other parents about the reasons why some students are picked up at their doors and others are not. Explanations should be general in nature to avoid violation of confidentiality.