Safe Routes to School Quick-Build Traffic Calming Guidebook

Quick-Build Projects for Safe Routes to School Volume I: Low-Cost, Temporary Strategies to Promote Traffic Calming and Improve Safety for Roadway Users Around School Campuses

This guide introduces the concept of traffic calming, provides examples of quick-build applications of traffic calming infrastructure improvements, and recommends next steps for advancing implementation. The guide is organized into five sections: Introduction, Quick-Build Projects, How to Implement Quick-Build Projects, Other Resources, and Potential Funding Sources.

As of the production of this document (August 2023), the strategies included are approved for stated purposes by the Federal Highway Administration and the Georgia Department of Transportation.

GDOT
Georgia Department of Transportation

Safe Routes to School
Georgia
GEORGIA DEPARTMENT OF TRANSPORTATION

This guidebook was commissioned by the Georgia Department of Transportation (GDOT) for the Safe Routes to School (SRTS) Program. The Georgia DOT SRTS Program is aimed at making bicycling and walking to school safe and routine through providing funds and services for infrastructure and programmatic improvements. See saferoutesga.org for more information.

Introduction

Roadway safety is a top priority for communities in Georgia, yet traffic-related injuries and fatalities are prevalent. According to the Centers for Disease Control and Prevention (CDC), car crashes are one of the leading causes of death for children. Approximately one in five fatal crashes involve pedestrians (Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, 2022). Higher vehicle speeds increase injury severity. Physical roadway strategies, known as traffic calming measures, have proven to reduce vehicle speeds and improve safety for pedestrians and cyclists. Examples of traffic calming strategies include road humps, diverters, and tightening the radius of a curve at an intersection.

While traffic calming strategies can be highly effective at reducing vehicle speeds, they can also be expensive to install and require years of planning and coordination before construction. Recognizing that a timely response to a traffic safety issue is a matter of life or death, communities have taken quick-build approaches to reduce vehicle speeds using temporary materials to implement solutions faster and cheaper than reconstructing a roadway.

Quick-build refers to low-cost, temporary strategies to improve a public place. While quick-build projects can serve many purposes, this guide focuses on quick-build traffic calming strategies and other safety enhancements to protect roadway users, including those walking, riding bicycles, rolling, and using other active modes around schools.

This guide introduces the concept of traffic calming and how these measures can improve safety around schools, provides examples of quick-build traffic calming infrastructure improvements, and recommends next steps for advancing implementation.

What is traffic calming?

Traffic calming refers to a suite of physical roadway strategies that result in reduced automobile speeds or volumes. Traffic calming strategies can improve the quality of life in neighborhoods by increasing the safety and comfort of walking, rolling, and bicycling.

Benefits of Quick-build Projects

Quick-build projects allow communities to design flexible bicycle, pedestrian, or traffic safety improvements that can be implemented faster and with fewer resources than a typical capital improvement project. These projects allow a community to test the feasibility of a more permanent solution and can be removed if needed.

Other benefits of quick-build projects:

- Draws attention to issues and serves as a platform for engagement
- Garners community support for permanent infrastructure solutions
- Pilots new concepts with minimal financial risk
- Initiates community-led solutions
- Encourages collaboration between local communities and the government

How to Use this Guidebook

This guidebook includes two parts.

- Part 1 introduces the concept of using roadway design to improve safety and provides examples of traffic-calming infrastructure improvements and examples of their quick-build applications.
- Part 2 is a concise how-to guide for implementation, from identifying the need for roadway safety improvements near your school to following a quick-build project through implementation.

Part 1: Quick-Build Projects to Calm Traffic and Improve Safety for Roadway Users Around School Campus

The strategies presented in this section are examples of quick-build interpretations of traffic calming measures intended to improve safety for people walking, biking, and rolling near elementary, middle, and high schools. Many of the strategies included in this guide require assistance from a licensed traffic engineer and coordination with the local roadway authority (e.g., city, county, or state department of transportation). All infrastructure installed must comply with the Manual on Uniform Traffic Control Devices (MUTCD) and the Manual for Assessing Safety Hardware (MASH).

Traffic Calming 101

Traffic calming encompasses primarily physical measures aimed at mitigating the adverse impacts of motor vehicles, modifying driver behavior, and improving conditions for non-motorized street users. Traffic calming strategies have been used on U.S. roadways for decades, providing an evidence-based approach to reducing traffic speed and motor-vehicle collisions. Traffic calming improves safety for pedestrians and cyclists and can lead to more people walking, biking, and rolling.

Quick-Build Traffic Calming Measures for Safe Routes to School

Many traffic calming measures can be implemented quickly with temporary installations that use household or construction materials to mimic permanent infrastructure. These quick-build solutions allow a school to take ownership of a project, from identifying the problem to shepherding a pilot project through implementation. Depending on the type of project and where it is located, the school may be permitted to install the pilot project. Quick-build projects also provide an opportunity for the community to be involved in and test a pilot solution before a local government dedicates resources to constructing permanent improvements. Whether a school is directly involved in the installation or a school representative serves as the project champion, a school has a role to play in making it safer, easier, and more fun for students to walk, bike, and roll to school.

Quick-Build Materials

Materials used for quick-build projects can be acquired easily in most cases. Although quick-build projects are typically temporary, some materials can last many years, providing a temporary solution many years ahead of permanent infrastructure. The chart below identifies some common quick-build project materials and quick-build strategies that may utilize each material. The quick-build strategies are discussed in more detail in the next section.

Materials	Right Turn Curb Extensions (Bulb-outs)	Hardened Center Lines (Left-Turn Hardening)	Temporary Roundabouts	High-Visibility Crosswalks	Protected Bike Lanes and Other Bike Safety Enhancements	Road Diet	Chicanes	Raised Crosswalk (Speed Cushions)	Pedestrian Refuge Islands
Traffic cones	●		●		●	●	●		●
Planters	●		●		●	●	●		●
Rubber curb stops		●	●						
Prefabricated speed tables								●	
Tempera paint	●		●	●	●	●	●		●
Traffic tape					●				
Butyl adhesive pads									
Flexible posts	●	●			●		●		
Thermoplastic	●								
Epoxy paint	●	●	●	●	●	●	●	●	●

Quick-Build Strategies

This guide features nine quick-build traffic calming strategies and case studies of schools or communities across the U.S. that have successfully implemented these solutions. The strategies are backed by validation studies spanning decades that support their effectiveness in reducing vehicle speeds. Traffic calming projects, including those in this guidebook, are eligible to apply for SRTS infrastructure funding from GDOT two times a year.

- Right Turn Curb Extensions (Bulb-outs)
- Hardened Center Lines (Left-Turn Hardening)
- Temporary Roundabouts
- High-Visibility Crosswalks
- Protected Bike Lanes and Other Bike Safety Enhancements
- Road Diet
- Chicanes
- Speed Cushions
- Pedestrian Refuge Islands

These strategies are described below with documented safety benefits, considerations of where and when to consider a strategy, useful materials and tools, and case studies with project examples.

Right Turn Curb Extensions (Bulb-outs)

Curb extensions, also known as bulb-outs, consist of a physical boundary extending the sidewalk into the parking or travel lane, effectively narrowing the roadway to encourage slower right turns. A quick-build curb extension may use paint and temporary materials like planters or traffic cones to extend the pedestrian space.

Safety benefits

- Increased pedestrian visibility at intersections through improved sightlines
- Shortened crossing distance
- Reduced vehicle turn speeds by physically and visually narrowing the roadway
- Increased pedestrian waiting space

Considerations (where and when to use)

Right-turn curb extensions and bulb-outs are used at corners or mid-block and are generally recommended only where street speeds are below 30 miles per hour.

Useful materials/tools

Temporary materials/tools: traffic cones, planters, or free-standing, flexible posts

More permanent materials/tools: paint, pigment polymer, thermoplastic, removable pavement tape

Case studies/project examples

Flint Hills MPO was a 2021 recipient of AARP's Community Challenge Grant, which awards quick-action projects to improve community livability. The Manhattan Catholic School in Manhattan, KS installed curb extensions to improve safety for students crossing the street as one of three semi-permanent projects installed in the community to improve pedestrian safety.

Students wait in right-of-way protected by rubber curbs and bollards before crossing the street to school in Manhattan, KS—photo from Flint Hills MPO.

Hardened Center Lines (Left-turn Hardening)

This strategy implements a horizontal barrier ahead of a roadway receiving left-turning vehicles from the adjacent street. A hardened center line commonly uses a prefabricated rubber barrier resembling a speed bump. The purpose of this barrier is to narrow the turn radius of a left-turning vehicle. Left turns are more dangerous than right turns because left turns can be taken at a wider radius with greater speeds. A barrier that serves as an obstruction causes people driving to make slower, squarer left-hand turns. Hardened center lines have been proven to significantly reduce speeds at crosswalks and improve safety for pedestrians.

Safety benefits

- Decreased pedestrian exposure by forcing drivers to take slower and squarer left-hand turns near a crosswalk
- Reduced vehicle turn speeds

Considerations (where and when to use)

Hardened center lines/left-turn hardening is often installed at intersections where a minor street intersects with a major street. A rubber barrier is installed ahead of left-turning vehicles from the minor street onto the major street. Hardened center lines/ left-turn hardening is especially useful at intersections with high volumes of pedestrians and where speeds of left-turning vehicles are an issue.

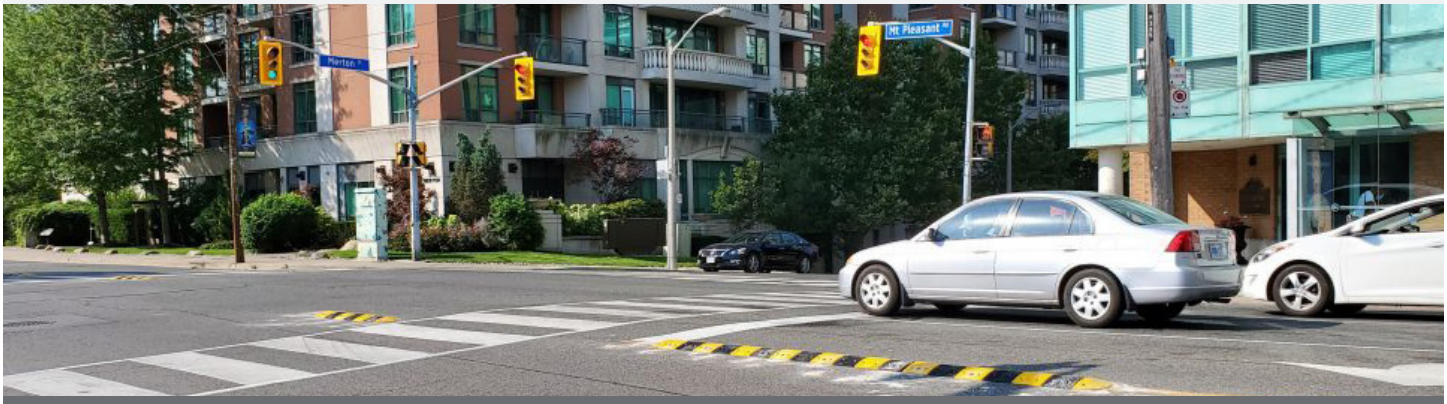
Useful materials/tools

Temporary materials/tools: free-standing, flexible posts

More permanent materials/tools: curb stops

Case studies/project examples

The City of Toronto installed left-turn calming treatments at eight locations based on collision history, collision severity, and findings of past safety reviews as part of a Left-Turn Calming Pilot program that aims to reduce the risk of left-turn collisions at signalized intersections. It is one of the several measures in the City's Vision Zero toolbox that are intended to eliminate traffic-related injuries and fatalities.



Hardened center line installed at the intersection of Mount Pleasant Road and Merton Street in Toronto, Canada. Photo from The City of Toronto.

Temporary Roundabouts

A roundabout is an intersection with a circular design and a central island used to manage traffic. Entering traffic must wait for a gap in the circulating flow before entering the circle. The roundabout configuration lowers speeds without fully stopping traffic. This strategy, when implemented correctly, can be used as a traffic-calming treatment. A temporary roundabout may be built with rubber curbing, signage, and striping. A state-licensed traffic engineer must design roundabouts and other traffic control devices.

Safety benefits

- Reduced vehicle speeds when entering the roundabout to allow pedestrians to cross streets more easily and safely
- Reduced conflict points

Considerations (where and when to use)

Temporary roundabouts are an ideal treatment for minor, uncontrolled intersections. Temporary roundabouts should not be implemented on multi-lane state routes or state routes with posted speed(s) above 35 MPH without prior coordination with GDOT. Please reach out to RAIDTeam@dot.ga.gov and bike.ped@dot.ga.gov for more information.

Useful materials/tools

Temporary materials/tools: bales of hay, planters, signage, cones

More permanent materials/tools: rubber curb stops, paint, trees

Case studies/project examples

Temporary roundabouts using rubber curb stops were installed on neighborhood streets in Denver during COVID-19 as part of a shared street pilot initiative to create safe and comfortable spaces for residents to walk, bike, roll, and play.

Quick-build roundabout in Denver, Colorado.
Photo by: Phoebe Fooks

Roundabouts are more than simple circles – they are traffic-calming devices that reduce conflict points and crashes when implemented appropriately. Improper implementation may reduce their safety and operational benefits.

- Laura Nesbitt, GDOT Traffic Engineer

Contact your city or county engineer(s) or GDOT (at Roundabouts@dot.ga.gov) with any questions about designing temporary roundabouts.

High-Visibility Crosswalks

Crosswalks are uniform traffic control devices, demarking a pedestrian pathway across travel lanes. In the United States, traffic control devices (including traffic signs, road surface markings, and signals) are subject to regulation by the Federal Highway Administration (FHWA) through the Manual on Uniform Traffic Control Devices (MUTCD).

MUTCD specifies that crosswalks must have solid white lines that mark the crosswalk. While a "standard" crosswalk commonly includes transverse lines, highly-visible crosswalks include unique patterns such as bar-pair, ladder, and continental markings to enhance visibility and remind drivers that pedestrians use the roadway. High-visibility crosswalks have been found to have increased safety benefits to pedestrians over standard crosswalks.

Safety benefits

- Reduced vehicle speeds due to increased visibility and driver awareness of the crosswalk
- Signifies this area is frequently used for crossing and reminds drivers should proceed with caution

Considerations (where and when to use)

High-visibility crosswalks should be used at uncontrolled intersections or midblock crossings with high foot traffic. A licensed engineer should decide when to provide a marked crosswalk and will reference MUTCD guidelines for crosswalk design and installation.

Useful materials/tools

Temporary materials/tools: chalk, tape, stencils

More permanent materials/tools: paint

Case studies/project examples

The photo at left below features a high-visibility crosswalk in Georgia with a continental pattern. The photo at right shows volunteers installing a high-visibility quick-build crosswalk using reflective tape.

High visibility crosswalk in Georgia.
Photo provided by GDOT.

Volunteers install a high visibility crosswalk in Macon, GA using reflective tape. Photo provided by Bike Walk Macon.

Protected Bike Lanes and Other Bike Safety Enhancements

Protected bike lanes include a painted or vertical buffer (e.g., flexible post, concrete curb) between the bike lane and traffic lane to create a more comfortable travel environment. When a bike lane is positioned between the parking lane and the curb, it is called a parking-protected bike lane. Other paint and post-treatments to increase safety for bicyclists can be applied using green paint. A bike box is a green-painted space in front of the vehicle stop bar that provides protected space for bicyclists to stage a left turn. Green-striped paint marks conflict zones at intersections to increase drivers' awareness of a shared space.

Safety benefits

- Buffered bike lanes increase the safety and comfort of riding for cyclists
- Striped intersections reduce potential conflict between bicycles and cars
- Bike boxes increase the visibility of bicyclists
- Bike boxes provide priority for bicyclists at signalized crossings of major streets

Considerations (where and when to use)

Protected bike lanes should be used anywhere a standard bike lane is considered, given adequate right-of-way. Aim to dedicate 8 to 10 feet of roadway to a buffered bike lane. Protected bike lanes are especially important on streets with high travel speeds, high travel volumes, and high truck traffic.

Bike boxes should be used at signalized intersections with designated bikeways with high volumes of bicycle travel and motor vehicles, especially those streets with frequent bicyclist left turns.

Useful materials/tools

Temporary materials/tools: stencils, chalk, tape, cones, and planters

More permanent materials/tools: paint, flexible posts, and parking curb

Case studies/project examples

As part of an effort to enhance pedestrian and bicyclist safety, the City of Atlanta incorporated multiple safety enhancements on Cherokee Ave. including a dedicated cycle track separated from vehicle traffic by vertical posts.

Two-way cycle track on Cherokee Avenue in Atlanta's Grant Park neighborhood.

This bike box is located in Athens, Clarke County, Georgia. Photo by John Devine, Georgia Bikes.

Chicanes

Chicanes are alternating mid-block curb extensions or islands that narrow the roadway and require vehicles to navigate through a curving, S-shaped path. These traffic calming features encourage motorists to drive at slower speeds by restricting vehicle acceleration.

Safety benefits

- Reduced vehicle speeds

Considerations (where and when to use)

Chicanes are appropriate for streets on low-speed (35 mph or less) and low-volume streets (maximum of 3,500 vehicles per day). Chicanes may be installed at mid-block locations along a street.

Useful materials/tools

Temporary materials/tools: cones and planters

More permanent materials/tools: paint, bollards

Case studies/project examples

The New York City DOT installed a chicane along 71st Avenue in Queens as part of a pilot program to reduce vehicular speeds.

Chicane along 71st Avenue in Queens.
Photo provided by NYC DOT.

Speed Cushions

Speed cushions are speed humps that include wheel cutouts to enable a vehicle with wide tracks (e.g., emergency vehicles and buses) or a bicycle to pass through the feature without vertical deflection.

Safety benefits

- Slow speeds of passenger vehicles without interfering with emergency vehicles
- Reduce traffic volume

Considerations (where and when to use)

Speed cushions may be used on streets with a speed limit of 30 mph or less and may only be used at mid-block locations.

Useful materials/tools

Speed cushions increase the roadway's height and necessitate semi-permanent materials like prefabricated rubber-raised platforms, which are more expensive than paint and post quick-build treatments used for other strategies.

Case studies/project examples

Speed cushions were installed on the Atlanta Beltline just south of Moreland Avenue in Atlanta, Georgia to reduce vehicle speeds.

Speed cushions installed on the Atlanta Beltline just south of Moreland Ave in Atlanta, Georgia.
Photo by: Ron Knezevich.

Pedestrian Refuge Island

Pedestrian refuge islands provide space for pedestrians in the middle of an intersection to reduce the crossing distance. This strategy allows pedestrians to stop safely in the middle of an intersection to look both ways when crossing. Pedestrian refuge islands are generally applied at locations where speeds, traffic volume, or the number of lanes make crossings especially dangerous.

Safety benefits

- Allows pedestrians to cross one direction of roadway at a time
- Reduced vehicle speeds

Considerations (where and when to use)

Pedestrian refuge islands can be installed at intersections or mid-block locations. They are particularly beneficial on streets wider than 60 feet.

Useful materials/tools

Temporary materials/tools: cones and planters

More permanent materials/tools: paint

Case studies/project examples

The Flint Hills MPO in Kansas used part of its AARP's Community Challenge Grant, a program that awards quick-action projects to improve community livability, to build a pedestrian refuge at Heller Elementary School in Neodesha, Kansas. This project used red pavement, yellow striping, and orange vertical bollards to provide a protected space for pedestrians to cross one traffic lane at a time.

Pedestrian refuge island installed at Heller Elementary School in Neodesha, Kansas.
Photo by: Flint Hills MPO

Part 2: How to Implement a Quick-Build Solution Near Your School

Identify and Document a Roadway Safety Issue Near Your School

Before implementing a quick-build solution project – it is important to gather quantitative and qualitative data to define and substantiate the problem. The types of data listed below are a good place to start.

Quantitative Data:

1. **Crash locations.** Locations where multiple crashes have occurred can be considered a higher priority for safety improvements over other locations.
   - Identify crash locations and note the documented time, day of the week, and contributing factors. Crash location data can be found through data software platforms like Numetric and the Traffic Analysis & Data Application (TADA).
2. **Vehicle speed data.** Vehicle speed is a major contributing factor to crashes. Even small reductions in vehicle speed can save lives, especially in school zones.
   - Look for speed data for a particular roadway segment on GDOT's Traffic Analysis & Data Application
   - Contact GDOT to obtain speed and volume data from connected vehicles.
3. **Traffic counts.** Traffic counts are publically available on GDOT's public platform TADA. Traffic counts can support the need for more complex traffic control or influence traffic calming recommendations or construction materials. For example, roadways with high vehicle volumes may require more durable paint.

Partner schools have access to technical assistance from the SRTS Program. Contact your SRTS Resource Center Manager for assistance with documenting a roadway safety issues near your school.

Qualitative Data:

Gathering qualitative data helps tell the story of how an unsafe environment negatively impacts the school community. The following are suggestions for qualitative data that can substantiate the need for a timely intervention

1. Collect feedback already received from the community on perceived issues.
2. Engage students, parents, educators, and community members to gather additional feedback about the problem.
3. Observe and document traffic patterns, including bicycle and pedestrian activity in the area.
4. Discuss travel patterns and possible origins and destinations. For example, a school should document arrival and dismissal times and vehicle drop-off routes.

Report the Concern to the Appropriate Agency

After gathering quantitative and qualitative data, it is important to report the concern or issue to the appropriate agency and know whom to follow up with to ensure the project can get underway.

1. **Find out what agency has jurisdiction over the roadway**. It's important to identify the agency governing the roadway which has been identified as a concern. A private entity, city, county, or the State can own roadways in Georgia. Determining the governing authority of a roadway can be accomplished by accessing resources such as Google Earth or Numetric.
2. **Contact the roadway authority.** If the proposed project is on a state highway, contact GDOT – see district locations and contact information below. Otherwise, the city DOT or public works department is a good starting place. Look for contact information for the traffic engineering department or city engineer on the agency's website. The city engineer can identify the appropriate agency if the project location is outside the local agency's jurisdiction.

   GDOT

   - District and area office contacts: https://www.dot.ga.gov/GDOT/Pages/GDOTDistricts.aspx
   - Statewide bicycle and pedestrian contact: bike.ped@dot.ga.gov
3. **Report the issue and submit supporting data.** Identify which platform is best for submitting the issue with supporting data. Some cities have formalized reporting processes or tools such as municipal apps, 3-1-1 systems, or traffic service request forms. Making personal contact with the roadway authority via phone or email is another option.

Gain Support from Within your School and The Larger Community

While waiting for your concern to be assessed by the local agency, drum up community support and momentum for your project. Consider contacting GA Bikes and the GA SRTS program for technical assistance and resources for advancing your project.

- Work with educators, parents/guardians, and students to garner support for the project.
- Garner support and permission from your school and district administration.
- Get support from elected officials and municipal staff.
- Gather buy-in from the community, neighborhood groups, and grassroots organizations.

Visit Georgia Bikes' website for more information on advocacy groups in Georgia.

Follow Up with The City's Public Works or the Department of Transportation

It is important to follow up to discuss the assessment of the reported concern with the roadway authority's transportation engineer. A project that has a champion is much more likely to be implemented. During this meeting, present any additional materials, including community testimonials and letters of support, in-kind donations, or implementation assistance.

Project Initiation and Stewardship

After you have worked with the city engineer to gain support for a quick-build solution, the project will need to be designed and submitted to the roadway authority for approval. As quick-build projects become more common, cities are creating processes and resources for applicants to fast-track the approval process for certain temporary and pilot projects. For example, the City of Atlanta's Tactical Urbanism Guide contains a simplified two-step review process for projects like crosswalk art, curb extensions, and walk lanes. Projects will always need to be designed by a traffic engineer for more complicated designs and traffic controls. If you are granted permission to install a quick-build project, you will likely need to submit additional permits and a plan to maintain and dismantle the installation.

Other Resources

The following links are for Georgia-specific resources, quick-build project ideas, and other quick-build guides.

Georgia Resources

- Numetric (crash data)
- GA Bikes
- GDOT Pedestrian and Streetscape Guide
- GA SRTS
- State bicycle safety laws
- GDOT complete streets policy (design manual)
- GDOT Bike/Ped
- City of Atlanta Tactical Urbanism Guide
- Regional Commissions
- Traffic Analysis & Data Application (TADA)

Project Ideas

- https://www.toronto.ca/city-government/planning-development/planning-studies-initiatives/king-street-pilot/public-realm/
- https://www.alamy.com/stock-photo/raised-pedestrian-crossing.html?sortBy=relevant
- https://www.kittelson.com/ideas/temporary-roundabouts-guide-traffic-after-hurricane-florence/
- https://www.nyc.gov/html/dot/html/pedestrians/turn-calming.shtml

Quick Build Resources

- https://altago.com/wp-content/uploads/Quick-Build-Guide-White-Paper-2020-1.pdf
- https://www.burlingtonvt.gov/sites/default/files/QUICK_BUILD%20GUIDE_0.pdf
- https://crcog.org/wp-content/uploads/2020/03/CRCOG_TUGuide-FINAL.pdf
- https://asphaltart.bloomberg.org/
- https://www.mass.gov/doc/pop-up-projects-for-safe-routes-to-school-may-2022/download
- CA Bicycle Coalition Quick-Build Guide

Street Design Guides

- https://nacto.org/publication/urban-street-design-guide/

Potential Funding Sources

The following funding sources for quick-build projects have been identified as potential funding sources. Many sources are not directly available to schools and require partnership with a city or county.

Funding Source	Funding Entity	Description	Minimum $ Amount for Project	Notes
Safe Routes to School - Highway Safety Improvement Program	USDOT/ GDOT	Eligible projects include: sidewalk improvements, traffic calming and speed cushion reduction improvements, pedestrian and bike crossing improvements, and traffic diversion improvements.	No minimum	Eligible applicants include state, regional, local, county and city government, and school districts. Projects must be located within two miles of a school.
Safety Equipment Purchase Program - Highway Safety Improvement Program	USDOT/ GDOT	Provides funding for safety equipment to be purchased using federal funds and installed using local maintenance forces. Proven safety equipment like PHB/RRFB equipment, speed feedback signs, advanced warning signs, etc. are project examples.	No minimum	Eligible applicants are local municipalities (cities/counties). Applications must be approved by state safety office and may require coordination with the applicable district. Equipment has to be picked up within 180 days of delivery.
Safe Streets For All (SS4A)	USDOT	Funds planning, infrastructure, behavioral, and operational initiatives to prevent death and serious injury on roads and streets involving all roadway users, including pedestrians; bicyclists; public transportation, etc. Creating safe routes to school and public transit services through activities that lead to people safely walking, biking, and rolling in underserved communities.	$200,000	Eligible recipients include MPOs, Counties, cities, towns, transit agencies, or other special districts, subdivisions of a State, and Tribes. There are two types of SS4A grants: Action Plan Grants and Implementation Grants. Schools would have to partner with one of these entities for an application for funding.
Transportation Alternatives Program (TAP)	GDOT/ FHWA	Provides funding for safe routes for non-motorized travel, including on- and off-road pedestrian and bicycle facilities, access to public transportation and schools, and other planning and design needs. Funds are typically awarded through GDOT but can also be awarded through an MPO, for example.	No minimum amount	Eligible recipients include a school district, local education agency, or school. If applying as one of those entities, projects should benefit the public and not only a private entity.

Funding Source	Funding Entity	Description	Minimum $ Amount for Project	Notes
Congestion Mitigation and Air Quality Improvement (CMAQ)	FHWA	Provides funding for eligible transportation projects, programs, and operational strategies that reduce emissions and to the attainment or maintenance of the National Ambient Air Quality Standards for ozone, carbon monoxide and particular matter.	1 Million* (Exceptions may be given for these types of projects to have smaller amounts)	Since 2013, ARC has refined its tools and will consider high performing bike/ped projects for CMAQ funds. The City of Atlanta, for example, would have to be a project sponsor for Atlanta Public Schools since they are certified to administer federal aid transportation projects. For ARC – applicant should submit a detailed project proposal and ARC will determine the best funding source if CMAQ isn't appropriate.
Local Maintenance and Improvement Grant (LMIG) Program	GDOT Districts	Projects for this grant can include asphalt patching or resurfacing, intersection improvements, turn lanes, sidewalks inside of ROW adjacent to public streets, signs/striping, and signal installation/improvements.	No minimum	Eligible applicants are local municipalities (cities/counties). The municipality is responsible for submitting applications and applicants must provide 10% or 30% match for the project. The project must be completed within 1-3 years.
Rebuilding American Infrastructure with Sustainability and Equity (RAISE)w	USDOT	Funds innovative capital projects and can flexibly fund multimodal projects. Agencies can incorporate bicycle, pedestrian, and transit improvements into larger projects in applications for RAISE funding. This funding source has annual award cycles.	$1 million (rural areas), $5 million (urban areas)	The City of Atlanta received a 2021 capital RAISE grant for the From Tracks to Trails: Reconnecting Atlanta Communities project. Eligible recipients include States/Territories, Counties, Tribes, Special Districts, Amtrak, and Transit Agencies. Schools would have to partner with one of these entities for a funding application.
Surface Transportation Block Grants (STBG)	FHWA	Funds safe routes for non-motorized travel, including on- and off-road pedestrian and bicycle facilities, access to public transportation and schools, and other planning and design needs. Funds are typically awarded through GDOT but can also be awarded through an MPO, for example.	No minimum amount	Eligible recipients include a school district, local education agency, or school. If applying as one of those entities, projects should benefit the public and not only a private entity.
Carbon Reduction Program (CRP)	USDOT	Provides funding for projects to reduce transportation emissions or the development of carbon reduction strategies. Some eligible uses include on/off-road trail facilities for non-motorized uses and travel demand management strategies and programs.	No info	65% of Georgia's CRP apportionment will be obligated in areas in proportion to their relative shares of the State's population. Funds technologies, strategies, and programs related to TDM, not just planning and capital projects. Schools would have to partner with a larger entity like a city or county for an application for funding.