

OREGON SAFE ROUTES TO SCHOOL
TRAFFIC GARDENS IN OREGON

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Oregon Department of Transportation
Safe Routes to School



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Traffic Gardens in Oregon

In December 2024, the project team put forward a series of questions to Safe Routes to School (SRTS) practitioners in Oregon about their thoughts and needs in anticipation of the Oregon SRTS Traffic Gardens Pilot project. The responses to those questions shed light on the potential level of interest in the program as well as what support may be needed to establish the first traffic gardens.

Overall, there appears to be excitement for the Oregon SRTS Traffic Gardens Pilot Project, with half of the respondents (6) indicating that they are very interested in the project and another three indicating that they are somewhat interested in it. Some of the respondents indicated that they were confused about how a traffic garden project could be implemented or what responsibilities would entail, and one respondent indicated that they did not care for the term “traffic garden.” Others expressed interest in traffic gardens being the topic of discussion during SRTS quarterly meetings.

When asked what kinds of support they would need to install a traffic garden, the top three answers were for funding, design, and implementation or installation. The Oregon SRTS Traffic Garden Pilot program aims to provide assistance to interested communities in each of these categories.

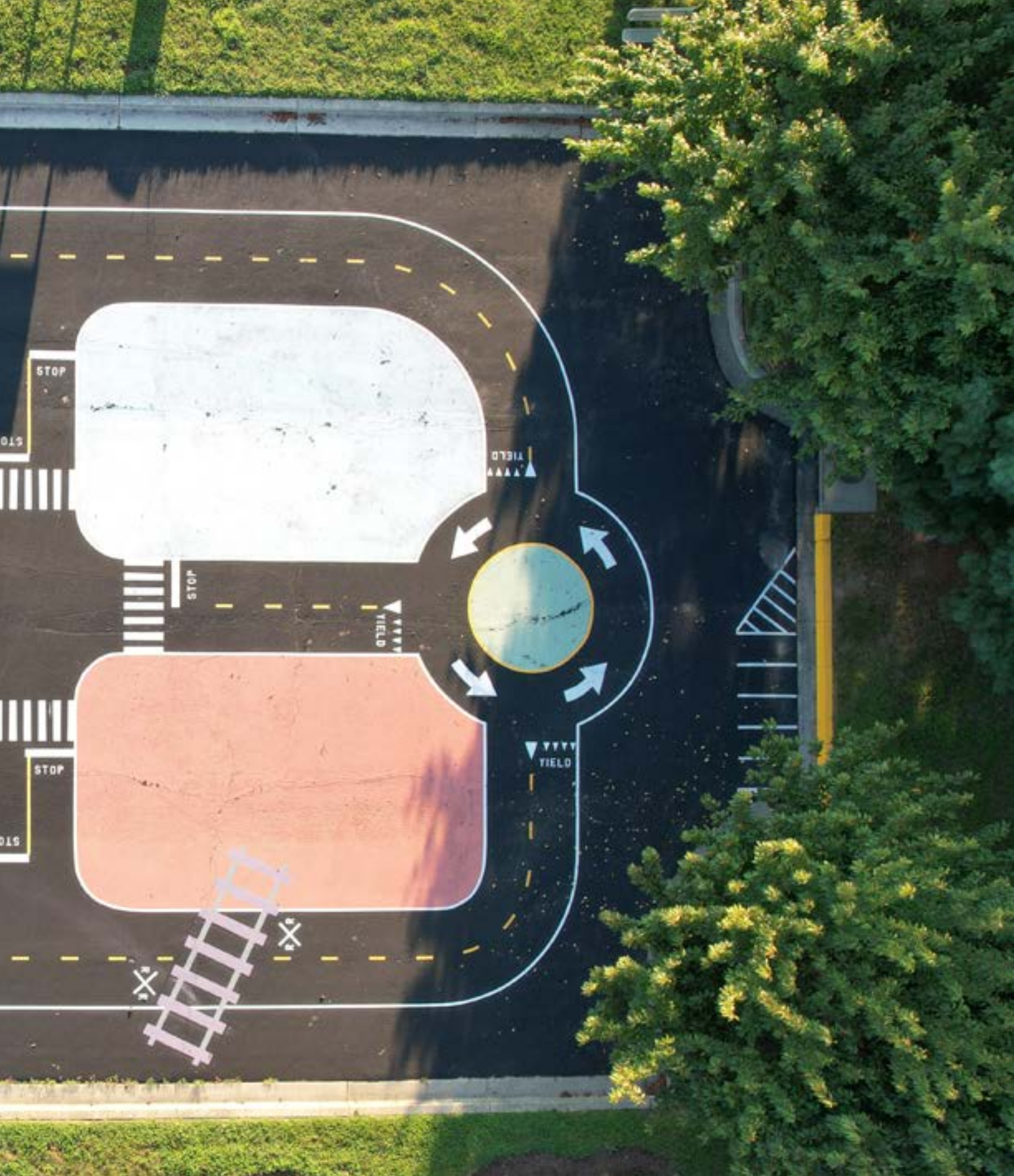




What Is a Traffic Garden?

A traffic garden is a dedicated motor vehicle-free space designed for teaching and practicing roadway safety and biking skills, especially for beginners.

In addition to hosting educational programs, traffic gardens also serve as active play areas for children on rolling devices. These installations typically feature a scaled-down network of streets, intersections, and traffic elements that are assembled to create a simplified version of real-world traffic that becomes a safe and comfortable environment for learning. The street layout may be painted directly on a surface with road markings and signs or built with physical elements like reduced-size asphalt streets and even small buildings to closely resemble real neighborhoods. Traffic gardens offer a simplified spatial learning experience for practicing navigating intersections and understanding basic traffic signs and roadway interactions while walking, biking, or scootering. Found in places like schoolyards, parks, parking lots, and other neighborhood spaces, traffic gardens are a popular community resource.



Traffic Garden Typology

There is no single typical traffic garden; instead, there are many variations in their creation, layout, and appearance.

The design of traffic gardens varies based on the types of users, skills being taught, available space, and budget resources. The inherent flexibility in traffic garden design allows for a wide variety of creation methods. The primary differences are in the materials, street design, and durability of various installation types. For purposes of this typology, traffic gardens are organized as follows:

Permanent Traffic Garden

SURFACE-APPLIED TRAFFIC GARDEN



Street networks and traffic features created by applying permanent paint-type products to hard outdoor surfaces, simulating miniature streets with pavement markings. Traffic signs may be stenciled on surface or portable.

BUILT-INFRASTRUCTURE TRAFFIC GARDEN



Miniature street networks with small-scale asphalt or concrete streets, often incorporating curbs, pavement markings, and installed traffic signs, designed as permanent outdoor facilities.

Temporary Traffic Garden

POP-UP TRAFFIC GARDEN



Streets and traffic features are created from removable materials such as duct tape. Typically, an installation remains in place for a few hours or days and may be associated with an event like a festival.

TEMPORARY TRAFFIC GARDEN



Street network and traffic features are created from materials that wear away such as spray marking paint. Typically, an installation remains in place for several weeks to months.

MOBILE TRAFFIC GARDEN



Street networks and traffic features made from portable materials can be quickly assembled indoors or outdoors for temporary use and easily dismantled and packed into a reusable kit afterward.

The following sections outline the five types of traffic gardens within the typology further, highlighting their unique characteristics and practical applications. Each section summarizes essential details, including purpose, materials, installation methods, target audiences, operational strategies, design considerations, and real-world examples. These breakdowns provide insights into how traffic garden models can be customized to serve specific educational or community engagement goals.

Surface-Applied Traffic Garden

DEFINITION

Street networks and traffic features created by applying permanent paint-type products to hard outdoor surfaces, simulating miniature streets with pavement markings. Traffic signs may be stenciled on surface or portable.

PURPOSE

- School physical education (PE) biking skills units
- SRTS or school roadway safety education programs
- Preschool balance biking lessons and fun
- Adaptive riding programs

TARGET AUDIENCE

- Children and other new learners for biking skills and roadway safety programs. Preschool-age children for balance bike learning and skills development.
- Adaptive bike riding program participants of any age.
- Families, community groups and youth programs.

RANGE OF EXAMPLES

- Garbutt Park Safety Town, Ferndale, Michigan
- Huntington Park Bike Traffic Garden, Columbia, Maryland
- Newport Traffic Garden, Newport, Rhode Island
- The Heights Bike Garden, Vancouver, Washington
- Viewlands Elementary School Traffic Garden, Seattle, Washington



TYPICAL OPERATION

Installation may be located on school grounds or in a park or similar setting. School grounds are often open to the public outside of school hours and allow use outside of school programs. Other places usually operate like a public playground.

TYPICAL MATERIALS

Acrylic traffic paint plus other acrylic color products and higher-grade decorative pavement coatings. Site may also need crack repair and surface coating materials before work can commence.

TYPICAL INSTALLATION TOOLS

Measuring tools; line striping machines; court line taping machine; specialty applicators including squeegees and rollers; mixing tools and buckets or tanks for color products; stencils; masking supplies; cleaning tools; protective gear; chalk reels and lumber crayons for marking surface in advance.

DESIGN

Some surface-applied traffic gardens follow straightforward parallel street layouts, but their versatility allows for endless design possibilities. They can be tailored to fit the available space and incorporate additional features, such as playground games or markings for other activities like basketball. This flexibility makes them adaptable to a variety of available sites and purposes.

LOCATION

Potential sites for traffic gardens include unused tennis courts, basketball courts, roller skating rinks, parking lots, recreation centers, elementary and preschool playground, overflow parking at places of worship, fairgrounds, shopping centers, or any other available flat, hard surface. Cracked surfaces can be repaired and resurfaced to create a blank canvas for installation.



SUITABLE SITE

- **Surface:** Ensure the area is mostly flat, avoiding steep slopes or dips. Evaluate surface condition and potential costs for crack repairs or resurfacing.
- **Size:** Ensure there is adequate space for streets including buffer zone.
- **Drainage:** Check for proper drainage and avoid areas prone to pooling water.
- **Accessibility:** Confirm suitable access for users of all abilities, ensuring no significant barriers or obstructions (unless they can be remedied).
- **Nearby Features:** Account for proximity to buildings, doorways, trees, shrubs, walls, or fences.
- **Community Location:** Consider the site's location within the community and the users it will serve.
- **Safety:** Ensure measures are in place to prevent unauthorized vehicle access. Assess any other potential hazards.

PERMANENT TRAFFIC GARDEN

Built-Infrastructure Traffic Garden

DEFINITION

Miniature street networks with small-scale asphalt or concrete streets, often incorporating curbs, pavement markings, and installed traffic signs, designed as permanent outdoor facilities.

Purpose

- Biking skills programs
- Roadway safety education programs
- Preschool balance biking lessons and fun
- Adaptive riding programs
- School field trips

TARGET AUDIENCE

Children and other new learners for biking skills and roadway safety programs; preschool-age children for balance bike learning and skills development; adaptive bike riding program participants of any age; families, community groups, and youth programs.

RANGE OF EXAMPLES

- Brookhaven Safety Town, Holtsville, New York
- Elmhurst Safety Town, Elmhurst, Illinois
- Hamilton Safety Town, Hamilton, New Jersey
- Knoxville Safety City, Knoxville, Tennessee
- New Albany Safety Town, New Albany, Ohio
- Portsmouth Safety Town, Portsmouth, Virginia



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TYPICAL OPERATION

Installation may be designed as a standalone, playground-style facility with flexible access or as a fenced and gated facility where programs are scheduled and managed. The latter design typically includes on-site staff to oversee and operate the facility.

TYPICAL MATERIALS

Streets may be created from asphalt or concrete, and concrete curbing may be featured along street edges. Acrylic traffic paint or thermoplastic markings for crosswalks, stop lines, arrows, and other features. Permanent traffic signs and poles made of durable materials like aluminum or plastic. Landscape elements are required for green spaces and separation areas. There may also be additional materials associated with storage facilities and other amenities.

TYPICAL INSTALLATION TOOLS

The installation involves tools, methods, and practices commonly used in site grading and construction projects for parks and trails. This includes site preparation, grading for proper drainage, and the use of materials like asphalt or concrete for durable surfaces. The process often incorporates elements such as curbs, pavement markings, landscaping, and utility connections, following standard design, permitting, and approval practices for new facilities. These approaches align closely with the techniques used for constructing recreational or outdoor public spaces.

DESIGN

These facilities are typically designed as self-contained spaces on larger sites, allowing for more creative layouts. Curved roads and longer road segments between intersections, as well as roundabouts and pedestrian networks, can be incorporated. The larger, dedicated space of a standalone setting also allows for the inclusion of additional features including shaded picnic areas and bike parking.

SUITABLE SITE

- **Grading:** Ensure site can be graded so streets are flat with minimal slopes around the edges.
- **Drainage:** Plan for effective stormwater handling to prevent runoff issues.
- **Accessibility:** Ensure convenient access for users of all abilities, free from significant barriers or obstructions.
- **Safety:** Identify and mitigate nearby hazards or safety concerns..



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Pop-Up Traffic Garden

DEFINITION

Streets and traffic features are created from removable materials such as duct tape. Typically, an installation remains in place for a few hours or days and may be associated with an event like a festival.

PURPOSE

- Family biking fun at community events
- Attract families to roadway safety education tables
- Showcase for a future permanent traffic garden concept
- Building support for a permanent traffic garden project

TARGET AUDIENCE

- Younger children (3–8 years old)
- Families and community members
- Volunteers and students involved in the pop-up planning and installation
- Local elected officials and other decision-makers



RANGE OF EXAMPLES

- DC Bike Giveaway Pop-Up Traffic Garden, District of Columbia
- GO Fest Pop-Up Traffic Garden, Roanoke, Virginia
- Hammond Pop-Up Traffic Garden, Hammond, New York
- Marbles Museum Pop-Up Traffic Garden, Raleigh, North Carolina
- University of Maryland Pop-Up Traffic Garden at MD Day, Maryland



TYPICAL OPERATION

Pop-up traffic gardens are usually set up by volunteers on the morning of an event and remain in place for a few hours or days. Volunteers operate them during the event, and they are dismantled afterward, leaving no trace behind.

TYPICAL MATERIALS

Duct tape; vinyl tape; spray chalk; artificial turf; traffic cones; hay bales. May include portable traffic sign set and a temporary fence or bunting around installation. Sidewalk chalk or chalk reels for marking in advance.

TYPICAL INSTALLATION TOOLS AND METHODS

Installed by team of volunteers using measuring tools, chalk marking line, stencils, clean-up supplies, circle marking rope, and dowel. May stencil traffic signs.

SET-UP AND STORAGE

These facilities are typically designed as self-contained spaces on larger sites, allowing for more creative layouts. Curved roads and longer road segments between intersections, as well as roundabouts and pedestrian networks, can be incorporated. The larger, dedicated space of a standalone setting also allows for the inclusion of additional features including shaded picnic areas and bike parking.

LOCATION SPECIFICATIONS

There are numerous site possibilities, such as public streets during Open Street events, unused tennis courts, basketball courts, roller skating rinks, parking lots, recreation centers, elementary and preschools, overflow parking areas at places of worship, fairgrounds, shopping centers, and any other flat, unused hard surfaces that are free of obstructions and hazards.

NON-PERMANENT TRAFFIC GARDEN

Temporary Traffic Garden

DEFINITION

Street network and traffic features are created from materials that wear away such as spray marking paint. Typically, an installation remains in place for several weeks to months.

Purpose

- Family biking fun and programs in the community
- Low-cost community engagement project
- Showcase for a future permanent traffic garden concept
- Test layout and design ideas before committing to permanent layout

TARGET AUDIENCE

- Local children
- Local families
- Community groups
- Elected officials and other agency officials



RANGE OF EXAMPLES

- Boulder Valley School District Temporary Traffic Gardens, Colorado
- Loch Lomond Elementary School Temporary Traffic Garden, Manassas, Virginia
- Palo Alto Pop-up Traffic Garden, Palo Alto, California
- Pat Pfiefer Park Temporary Traffic Garden, Gresham, Oregon
- Women's Club of Arlington Temporary Traffic Garden, Arlington, Virginia



TYPICAL OPERATION

This is typically set up in an open area where it functions like a short-term playground accessible to the public. It can also be used to host local programs.

TYPICAL MATERIALS

Usually created with spray marking paint to add striping lines and pavement markings—this is the paint typically used to mark utilities on surfaces. Spray marking paint comes in a wide range of colors, so it is used for decorative elements also. Other materials that have an extended life that will wear away over time include tempera paint and artists permanent spray chalk. Sidewalk chalk or chalk reels for marking in advance.

TYPICAL INSTALLATION TOOLS AND METHODS

To install a temporary traffic garden, marking and measuring tools are needed to outline streets with chalk before painting. Striping and pavement markings can be applied using handheld spray wands or walk-behind spray strippers or by hand spraying also. Stencils, painting supplies, and cleaning tools are required also.

LOCATION SPECIFICATIONS

There are many site possibilities including unused tennis courts, basketball courts, roller skating courts, parking lots, recreation centers, elementary and preschool grounds, overflow parking at places of worship, fairgrounds, shopping centers, and any other unused flat, hard surface.

NON-PERMANENT TRAFFIC GARDEN

Mobile Traffic Garden

DEFINITION

Street networks and traffic features made from portable materials can be quickly assembled indoors or outdoors for temporary use and easily dismantled and packed into a reusable kit afterward.

PURPOSE

- Portable roadway safety education and biking skills programs
- SRTS school programs
- Summer programs
- Community festivals

TARGET AUDIENCE

- Elementary and middle school students
- Summer camp and other organization participants
- Local children and their families
- Teachers and PE instructors



RANGE OF EXAMPLES

- DC Bike Giveaway Pop-Up Traffic Garden, District of Columbia
- GO Fest Pop-Up Traffic Garden, Roanoke, Virginia
- Hammond Pop-Up Traffic Garden, Hammond, New York
- Marbles Museum Pop-Up Traffic Garden, Raleigh, North Carolina
- University of Maryland Pop-Up Traffic Garden at MD Day, Maryland



TYPICAL OPERATION

A kit is created to accompany a SRTS educational program or complement safety outreach events. The kit may be a tool for the SRTS coordinator or some other local agency or organization working with children on roadway safety education. It may also be part of a group's encouragement outreach or part of a regular summer camp program.

TYPICAL MATERIALS

Kits are made from lightweight materials designed to stay in place during use and are often assembled or crafted locally. They can include storage containers, handcarts, measuring tools, information binders, clipboards, portable traffic signs, street materials, layout tarps, and optional elements like portable buildings. Typically, kits are not suitable for both indoor and outdoor use, as grit from outdoor surfaces can damage indoor floors, such as those in gyms.

SET-UP AND STORAGE

The mobile kit is designed and sized to suit its intended use—whether for classrooms, school assemblies, summer camps, or other activities—and considers who will store, transport, and assemble it.

LOCATION SPECIFICATIONS

Mobile traffic garden kits are versatile, usable in flat indoor or outdoor spaces like school gyms, assembly halls, recreation centers, libraries, parking lots, or courts. Before setting up at a new site, it is necessary to visit to ensure suitability. Key factors include space size for the street layout and group activities, a clear buffer zone, hazard-free safety, and accessible loading and transport options. Indoor set-ups, in particular, require sufficient recovery space around the layout.



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