



White Paper | Urban Safety

Leveraging Purpose-Built Technologies: Deploying Vehicle Barrier Systems to Safeguard Pedestrians in Urban Environments

Executive Summary

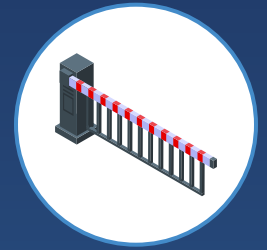
As urban areas increasingly host events in spaces typically reserved for vehicle traffic, ensuring public safety in these pedestrianized zones has become a critical priority. This white paper examines the growing risks of vehicle-related incidents, both accidental and deliberate, in such settings and explores solutions to mitigate these threats.

From bollards and barriers to traffic spikes and other protective measures, we provide a comprehensive review of technologies and strategies designed to safeguard public spaces while preserving their functionality and accessibility.

The Dual Crisis

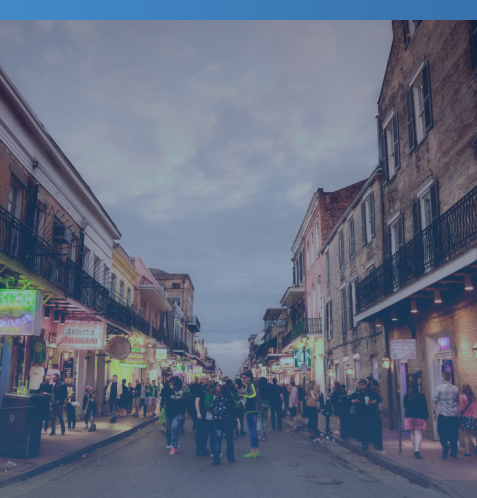
Pedestrian fatalities in the United States have reached alarming levels, with 7,522 deaths recorded in 2022 alone—a staggering 68% increase since 2011. This statistic underscores a systemic failure to prioritize pedestrian safety in urban planning, where streets are often designed for speed and vehicle efficiency at the expense of vulnerable road users.

At the same time, vehicle-ramming attacks have emerged as a devastating and increasingly common form of terrorism. By weaponizing everyday vehicles, attackers target crowded pedestrian areas—so-called "soft targets"—to maximize harm and spread fear. Unlike traditional threats like vehicle-borne improvised explosive devices (VBIEDs), these attacks are unpredictable and exploit the openness of urban public spaces.



Deploying Technologies to Improve Safety, Security, and Efficiency Across Oil and Gas Operations

- Executive Summary and Purpose Statement
- Understanding the Crisis of Vehicle Attacks
- Evaluating Barrier Technologies
- Tailored Solutions for Diverse Urban Needs
- Legal and Policy Considerations
- Data-Driven Decision Making
- Proposed Strategies for Urban Environments
- Recommendations for Action
- Paper Consultation and Summary Overview



Urban areas face growing risks from vehicle-ramming attacks and pedestrian fatalities, highlighting the need for proactive safety measures like crash-rated barriers and integrated urban design.



Cities like New York demonstrate how scalable, data-driven solutions can enhance public safety while maintaining accessibility and vibrancy in high-pedestrian spaces.



Case Studies

Bourbon Street, New Orleans

New Orleans' iconic Bourbon Street exemplifies cities' challenges in securing high-pedestrian areas. Despite its global reputation and dense foot traffic, the current barrier system—already unreliable—is being replaced with barriers rated to withstand impacts at only 10 mph. This falls far short of providing adequate protection in an area that requires robust, carefully considered solutions. Additionally, the city's high-water table renders traditional retractable bollards impractical, further complicating the implementation of effective safety measures.

Post 9/11 New York City

New York City has taken significant strides in balancing safety, accessibility, and aesthetics in public spaces. Following the 9/11 attacks, the city prioritized high-value targets like government buildings with robust counter-terrorism strategies, including measures against VBIEDs. However, the rise of vehicle-ramming attacks—such as the 2017 West Side Highway incident—necessitated a broader focus on public spaces. Crash-rated barriers have since been installed in high-pedestrian areas like Times Square and bike paths, demonstrating how proactive, integrated planning can protect urban environments without sacrificing usability. New York City's approach also highlights the importance of aesthetic integration, using reinforced street furniture to maintain the vibrancy of urban life.

Purpose

This paper advocates deploying active barrier systems as scalable, data-driven solutions to address these pressing issues. By integrating crash-rated barriers, urban design principles, and actionable data, we aim to create safe, accessible, and vibrant pedestrian spaces. These solutions must balance the need for security with the openness that defines urban environments' social and economic fabric. Through this approach, cities can effectively protect public spaces, mitigate risks, and enhance residents' and visitors' quality of life.

Understanding the Crisis

Urban environments face a dual threat from increasing vehicle-ramming attacks and record-high pedestrian fatalities. Together, these challenges expose systemic vulnerabilities in how cities are designed and protected, underscoring the urgent need for proactive, integrated safety measures.

Vehicle-Ramming Attacks

Over the past decade, vehicle-ramming attacks have become a pervasive threat to urban safety. These attacks, where vehicles themselves are weaponized, represent a shift in terrorism tactics:

- **Origins & Evolution:** The 2016 Bastille Day attack in Nice, France, where a truck was driven through a crowded promenade, marked a grim turning point. This method has since been replicated in cities like Berlin and New York City, where high-pedestrian-volume areas were deliberately targeted to maximize casualties and fear.
- **Unique Challenges:** Unlike traditional terrorist attacks, vehicle-ramming is unpredictable and leverages common, readily available vehicles. These incidents often target "soft" pedestrian spaces, such as sidewalks, bike paths, and event venues, which are inherently open and accessible.
- **Current Responses & Limitations:** Cities have primarily relied on temporary measures, such as concrete blocks and ad hoc barriers, to mitigate these threats. While quick to deploy, these solutions often lack adequate impact resistance, are visually unappealing, and fail to provide comprehensive protection against high-speed impacts.

Pedestrian Fatalities

In 2022, pedestrian deaths in the United States reached a 40-year high, with 7,522 fatalities—a 68% increase since 2011. This alarming trend highlights systemic flaws in urban design and prioritization:

- **Systemic Issues with Road Design:** Streets prioritize vehicle speed and throughput over the safety of pedestrians and other vulnerable road users. This design philosophy leaves those outside vehicles disproportionately at risk.
- **Fatalities Outside Vehicles:** Advances in vehicle safety technologies have reduced in-car deaths, but these gains have not translated to those outside vehicles. Pedestrians and cyclists now make up a growing share of traffic fatalities, reflecting a critical imbalance in safety efforts.
- **Lessons from Vision Zero and Complete Streets:** Programs like Vision Zero and Complete Streets provide valuable insights. Vision Zero seeks to eliminate all traffic fatalities through speed reduction and pedestrian-centric infrastructure. At the same time, Complete Streets emphasizes multimodal design to ensure safe travel for users of all ages and abilities. However, these programs often operate in silos, disconnected from broader counterterrorism and urban securitization strategies.

Together, these crises demand a shift in urban safety strategies. Addressing vehicle-ramming attacks and pedestrian fatalities requires robust physical barriers and holistic planning that integrates security, accessibility, and livability into the urban fabric.

Evaluating Barrier Technologies

A robust urban safety strategy begins with evaluating the available barrier technologies. Modern active and passive barriers address various urban challenges, from securing pedestrian spaces to protecting critical infrastructure. This section explores key solutions, their applications, and the standards governing their effectiveness.

Overview of Solutions

Crash-rated bollards, road blockers, and innovative solutions like reinforced street furniture are key components of effective urban safety. For instance, New York City's integration of crash-rated barriers into bike paths and public plazas provides a model for other cities seeking to protect high-traffic areas while maintaining aesthetic appeal.

Crash-Rating Standards

Crash-rated bollards, road blockers, and innovative solutions like reinforced street furniture are key components of effective urban safety. For instance, New York City's integration of crash-rated barriers into bike paths and public plazas provides a model for other cities seeking to protect high-traffic areas while maintaining aesthetic appeal.

To ensure the effectiveness of barrier technologies, rigorous standards and testing protocols are applied. These standards evaluate barriers based on their ability to withstand impact, stop vehicles, and limit penetration. Standards such as K-Ratings and ASTM Ratings have guided cities like New York in deploying solutions that balance security with accessibility.

- **K-Ratings (U.S. Department of State):** Measures the stopping power of barriers against a 15,000-pound vehicle at varying speeds:
 - K4: Stops a vehicle at 30 mph.
 - K8: Stops a vehicle at 40 mph.
 - K12: Stops a vehicle at 50 mph.



Pedestrian fatalities in the U.S. are at a 40-year high, driven by systemic flaws in road design that prioritize vehicle speed over pedestrian safety.



Incorporating crash-rated barriers and innovative technologies into urban planning can enhance pedestrian safety while balancing security, accessibility, and aesthetic considerations.



Urban planners can enhance safety and accessibility by integrating adaptive, data-driven solutions like crash-rated barriers and reinforced street furniture, tailored to specific environments.



Innovative designs, such as shallow-mounted systems for high-water-table cities and protective bike paths, demonstrate how cities can balance security with functionality and vibrancy.



- **L-Ratings (Penetration Distance):** Defines the distance a vehicle penetrates past a barrier after impact:
 - L3: Less than 3 feet.
 - L2: Between 3 and 20 feet.
 - L1: Between 20 and 50 feet.
- **ASTM Ratings (American Society for Testing and Materials):** Incorporates vehicle weight, speed, and penetration distance into barrier evaluation:
 - **Weight Categories:** C (Small Car), PU (Pickup Truck), M (Medium Truck), H (Heavy Truck).
 - **Speed Categories:** 30 mph, 40 mph, 50 mph.
 - **Penetration Categories:**
 - P1: Less than 3.3 feet.
 - P2: Between 3.31 and 23 feet.
 - P3: Between 23 and 98 feet.
 - P4: Over 98 feet.

Understanding and deploying these barrier technologies and standards allows urban planners to select the most effective solutions for diverse environments. By aligning barrier performance with specific urban needs, cities can protect public spaces, critical infrastructure, and pedestrians with tailored scalable approaches.

Tailored Solutions for Diverse Urban Needs

Urban environments present unique challenges that demand adaptive and context-sensitive safety measures. By integrating data-driven approaches with innovative technologies, cities can address systemic risks while maintaining accessibility and vibrancy. Below, we examine the challenges and explore tailored solutions for various urban scenarios.

Urban Challenges

Balancing Openness, Accessibility, and Security

Cities thrive on openness, where public spaces encourage interaction and mobility. However, increasing security threats require solutions that do not overly restrict access or diminish urban areas' aesthetic and functional qualities. Effective designs must integrate seamlessly with the urban fabric to protect without creating a fortress-like atmosphere.

New York City's experience illustrates the importance of balancing openness, accessibility, and security. By integrating reinforced street furniture and strategically placed crash-rated bollards, the city has managed to enhance pedestrian safety without compromising urban vibrancy.

New York's Vision Zero and Complete Streets initiatives provide valuable lessons for urban planners. For example, bike paths protected by crash-rated barriers mitigate the risk of vehicle-ramming attacks and enhance mobility and accessibility for diverse road users. These measures demonstrate how safety and usability can coexist in dense urban environments.

Overcoming Design Constraints in High-Water-Table Cities

Locations like New Orleans face unique geographic constraints where high water tables render many traditional barrier systems, such as retractable bollards, impractical due to susceptibility to flooding and mechanical failure. Shallow-mounted solutions, such as wedge barriers or surface-mounted bollards, are essential for ensuring durability and reliability under these conditions.

Addressing Systemic Risks with Data-Driven Prioritization

Data must guide the allocation of resources for urban safety measures. Analytics on pedestrian density, vehicular traffic patterns, and historical incident reports enable planners to prioritize high-risk zones, ensuring interventions provide maximum impact.

Use Case Scenarios

- **Military Perimeters**
 - Military installations demand the highest levels of security. Deploying K12-rated solutions, such as wedge barriers and reinforced road blockers, ensures maximum protection against high-speed vehicle threats. These systems provide rapid deployment capabilities, essential for dynamic threat environments.
- **Sidewalks and Schools**
 - Fixed bollards offer robust protection for sidewalks, school perimeters, and other high-pedestrian areas. Designed to withstand vehicle impacts, these barriers safeguard vulnerable populations while maintaining unobstructed pedestrian flow and accessibility.
- **Warehouse Applications**
 - Core-drilled bollards like the Alvarado 60" protect critical assets in industrial and warehouse environments. These fixed installations prevent accidental or deliberate vehicle incursions, ensuring operational continuity and worker safety.
- **Night Street Closures**
 - Streets like Bourbon Street in New Orleans benefit from retractable or sliding systems that allow for flexible pedestrianization during peak hours while accommodating essential vehicle access for deliveries and emergency services during the day. These systems balance urban vibrancy with safety requirements.
- **Event Management**
 - Portable barriers provide an effective solution for securing temporary gatherings such as festivals, parades, and concerts. Lightweight yet crash-rated systems can be rapidly deployed and removed, ensuring safety and operational efficiency.
- **Critical Infrastructure**
 - Airports, government facilities, and data centers require high-security solutions like road blockers (e.g., RSB M30 by Automatic Systems). These barriers deliver shallow-mounted, retractable protection capable of stopping high-speed vehicles, making them ideal for critical locations where downtime is not an option.
- **Bike and Pedestrian Paths**
 - Integrated safety measures, including reinforced street furniture and strategically placed bollards, enhance safety for multimodal urban spaces. These designs ensure protection without hindering accessibility for cyclists, pedestrians, and users of mobility devices.

Tailoring solutions to meet the diverse needs of urban environments ensures that cities remain safe, functional, and welcoming. By combining innovative technologies with informed planning, municipalities can effectively address emerging threats while preserving the accessibility and openness that define vibrant urban life.

Legal and Policy Considerations

Addressing the dual crises of pedestrian fatalities and vehicle-ramming attacks requires not only innovative technology but also robust legal and policy frameworks. The SAFETY Act and other regulatory efforts play a critical role in fostering innovation while ensuring accountability, but significant gaps remain in the standardization and implementation of urban safety measures.

The SAFETY Act

Enacted in 2002 as part of the Homeland Security Act, the Support Anti-Terrorism by Fostering Effective Technologies (SAFETY) Act provides liability protections for developers and sellers of anti-terrorism technologies. This legislation addresses a critical barrier: the reluctance of private companies to deploy security technologies due to fears of legal repercussions if their systems fail during a terrorist attack.



Innovative technologies and informed planning are key to creating urban environments that are safe, functional, and welcoming, while addressing threats like pedestrian fatalities.



The SAFETY Act fosters the development of anti-terrorism technologies by providing liability protections, though gaps in standardizing urban safety measures remain.



The SAFETY Act provides liability protections and incentives for developing new technologies, while offering certification benefits that boost market confidence and drive innovation.



Addressing regulatory gaps requires federal leadership, interagency collaboration, and data-driven policies to align counterterrorism measures with urban safety and accessibility needs.



- **Liability Protections:** The SAFETY Act limits legal exposure for certified anti-terrorism technologies. This protection extends to manufacturers, vendors, and other entities in the technology’s supply chain, shielding them from potential lawsuits in the event of a terrorist attack.
- **Incentivizing Innovation:** By reducing litigation risks, the SAFETY Act encourages developing and deploying innovative security solutions. It incentivizes private sector investment in high-risk, high-reward technologies essential for protecting public spaces and critical infrastructure.
- **Designation and Certification Benefits:** Companies can apply for two levels of legal protection under the SAFETY Act:
 - **Designation:** Provides liability protections and recognizes the technology as effective in countering terrorism.
 - **Certification:** Offers the highest level of protection, designating the product to meet rigorous performance and safety standards. Certification also confers the presumption of government contractor defense in lawsuits.

Vendors achieving these statuses gain a competitive advantage and increased market confidence, making the SAFETY Act a vital tool for fostering a secure marketplace for anti-terrorism technologies.

Regulatory Gaps

While the SAFETY Act has strengthened legal protections for security technology, there are significant gaps in the urban safety regulatory framework.

- **Lack of Unified Standards:** Existing standards for crash-rated barriers and other technologies, such as K- and ASTM ratings, primarily address physical performance but lack comprehensive guidance for urban applications:
 - Limited alignment between counterterrorism measures and pedestrian safety initiatives like Vision Zero.
 - Absence of universal policies for securing urban pedestrian spaces against emerging threats such as vehicle-ramming attacks.
- **Recommendations for Interagency Collaboration and Federal Leadership**
 - Closing these regulatory gaps requires a coordinated, multi-level approach:
 - **Federal Oversight:** Agencies like the U.S. Department of Homeland Security (DHS) and the Department of Transportation (USDOT) should lead the development of integrated safety standards that address both terrorism and traffic-related threats.
 - **Inter-agency Collaboration:** Security, transportation, and urban planning agencies must work together to harmonize policies and streamline implementation.
 - **Data-Driven Policies:** Mandate the use of empirical data, such as pedestrian density and vehicular incident reports, to prioritize high-risk areas and deploy resources effectively.
 - **Public-Private Partnerships:** Encourage collaboration between government and private stakeholders to accelerate the development and adoption of advanced security technologies.

By leveraging the SAFETY Act and addressing regulatory gaps, cities can build a legal and policy framework that supports both innovation and accountability. This approach not only protects urban spaces from evolving threats but also ensures that safety measures align with the accessibility and livability needs of modern cities.

Data-Driven Decision Making

Effective urban safety strategies require a foundation of reliable data to identify vulnerabilities, prioritize interventions, and guide the design and implementation of security measures. Cities like New Orleans and New York have pioneered data-driven approaches, combining pedestrian density analytics with historical incident reports to target high-risk zones.

By seamlessly integrating safety measures, cities can mitigate risks, protect their residents, and preserve the openness and vibrancy that define urban life.

Using Crash and Fatality Data

Crash and fatality data offer crucial insights into the underlying causes of pedestrian deaths and injuries. This empirical evidence provides a roadmap for targeted interventions that maximize impact and resource efficiency.

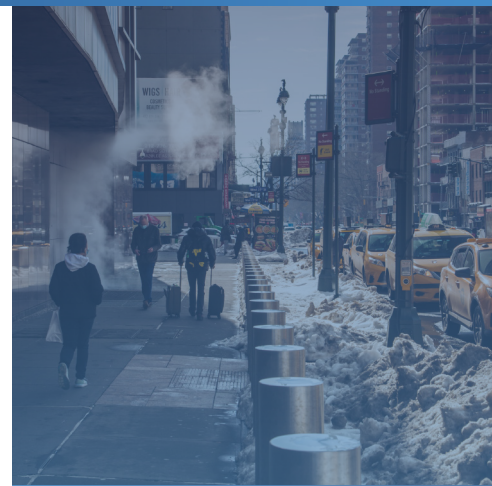
- **Prioritizing High-Risk Areas:** Data on crash frequency, pedestrian density, and traffic flow patterns enable cities to identify high-risk locations, such as busy intersections, school zones, and entertainment districts. Targeting these areas with tailored safety measures, such as crash-rated barriers and improved street design, ensures resources are allocated where they will save the most lives.
- **Addressing Urban vs. Rural Disparities:** Pedestrian fatalities occur disproportionately in urban settings due to higher population density and traffic volumes. However, rural areas face unique challenges, including limited infrastructure and higher vehicle speeds. Data-driven analysis allows for location-specific solutions, from advanced barriers in urban centers to traffic-calming measures in rural communities.

Proactive Urban Design

Beyond reacting to existing data, cities can leverage predictive analytics to anticipate risks and proactively design safer environments.

- **Identifying Vulnerable Areas with Predictive Analytics:** Advanced technologies, such as machine learning algorithms, can analyze large datasets to predict where incidents are likely to occur. Variables like road design, traffic speed, pedestrian activity, and historical crash data help identify vulnerable areas before incidents happen. These insights guide the placement of safety infrastructure, such as bollards, road blockers, and improved crosswalk designs.
- **Aligning Security Measures with Long-Term Urban Development Goals:** Security infrastructure must be seamlessly integrated into broader urban development plans to ensure sustainability and alignment with community needs. For example:
 - **Multi-functional Designs:** Barriers and bollards that double as street furniture or planters enhance the aesthetic and functional value of public spaces.
 - **Future-Proof Planning:** Incorporating adaptable designs allows cities to evolve their safety measures alongside urban growth and changing mobility patterns.
 - **Community Engagement:** Including public input in the planning process ensures that safety measures align with local priorities and enhance public trust.

By combining crash data, predictive analytics, and community-focused planning, cities can implement solutions that respond to current challenges and anticipate and mitigate future risks. This data-driven approach empowers municipalities to create safer, more resilient urban spaces while fostering public confidence in their infrastructure and policies.



Cities can enhance urban safety by using data-driven strategies like crash analysis and predictive analytics to identify high-risk areas, implement targeted interventions, and design safer environments.



Integrating safety measures with urban development goals and community input ensures sustainable, functional, and resilient public spaces.

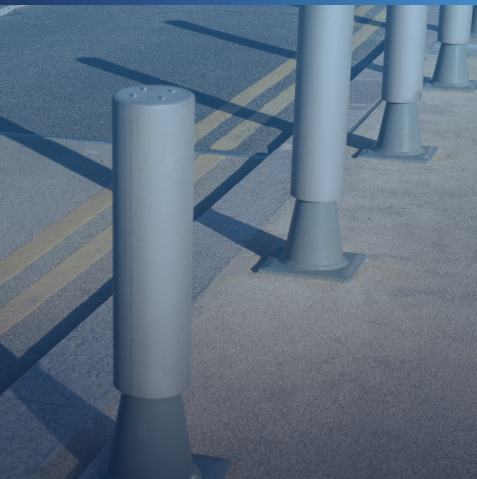




Cities can enhance safety and public space usability by combining immediate measures and long-term investments such as portable bollards and retractable road blockers.



By integrating urban design principles like natural surveillance and territorial reinforcement, municipalities can create secure, functional, and visually appealing environments.



Proposed Strategies for Urban Environments

The complexity of urban safety challenges requires a blend of immediate, adaptable measures and long-term strategic investments. By integrating flexible solutions and prioritizing urban design principles, cities can protect pedestrians, enhance public space usability, and create secure and inviting environments.

Immediate Measures

Swift, actionable solutions are essential for addressing immediate safety needs in high-risk areas.

- **Deploy Portable Barriers for Temporary Safety:** Portable crash-rated barriers offer a practical, rapid-deployment solution for temporary events, such as parades, concerts, or festivals. These systems can be strategically placed to manage pedestrian flows and block unauthorized vehicle access without permanently altering the urban landscape.
- **Install Fixed Bollards in Vulnerable Pedestrian Zones:** Fixed bollards provide robust, permanent protection for high-traffic pedestrian areas, such as busy intersections, shopping districts, and school zones. These barriers safeguard vulnerable populations by preventing vehicle incursions while maintaining pedestrian access and flow.

Long-Term Solutions

Sustainable urban safety requires strategic investments in infrastructure that balances security with functionality.

- **Invest in Retractable Road Blockers and Wedge Barriers for Urban Flexibility:** Retractable solutions, such as wedge barriers and road blockers, offer the flexibility to adapt to changing needs. These systems can secure streets during peak pedestrian hours or events, while allowing essential vehicle access for deliveries and emergency services when required. Shallow-mounted designs, such as the RSB M30 by Automatic Systems, are ideal for cities with geographic constraints like high water tables.
- **Incorporate Crash-Rated Street Furniture to Maintain Aesthetics and Security:** Blending safety infrastructure with urban design enhances both functionality and aesthetics. Crash-rated benches, planters, and other street furniture provide dual-purpose protection while preserving the openness and visual appeal of public spaces. This approach ensures security measures do not detract from the vibrancy of urban life.

Integrated Safety and Security

To create resilient urban environments, safety and security must be harmonized with public space usability.

- **Use Urban Design Principles to Harmonize Safety and Usability:** Urban design concepts, such as Crime Prevention Through Environmental Design (CPTED), emphasize strategies that naturally deter threats while enhancing the usability of public spaces. Key principles include:
 - **Territorial Reinforcement:** Using barriers and design elements to define safe zones and demarcate pedestrian spaces from vehicle access points.
 - **Natural Surveillance:** Designing open, well-lit areas that maximize visibility and discourage malicious activity.
 - **Aesthetic Integration:** Ensuring security measures blend seamlessly with the urban fabric, preserving the character and functionality of public spaces.

By combining immediate interventions with long-term planning and integrated design strategies, cities can address emerging threats while fostering urban environments that are safe, functional, and welcoming. These proposed strategies provide a pathway for municipalities to protect their residents and visitors without compromising the accessibility and vibrancy of their public spaces.

Recommendations and Call to Action

As urban safety challenges grow more complex, actionable solutions and collaborative efforts are vital. By leveraging the capabilities of trusted partners and advocating for strategic policies, municipalities can address immediate and long-term threats to public safety while fostering inclusive, secure urban spaces.

Vendor and Product Highlights

Our partnerships with industry leaders enable us to deliver cutting-edge, SAFETY Act-compliant solutions tailored to diverse urban safety needs. Ameristar, an Assa Abloy company, offers Sentinel solutions that meet rigorous performance standards, offering reliability, flexibility, and durability:

- **Ameristar Sentinel:** A robust M50/K12-rated wedge barrier, ideal for high-security applications such as government facilities, military installations, and critical infrastructure. Designed for maximum impact resistance, the Sentinel ensures top-tier protection for sensitive areas.

Policy Advocacy

Strong federal and local policies are essential to support the implementation of these safety measures:

- **Encourage Federal Funding for Pedestrian Safety Initiatives:** Advocate for increased federal investment in programs designed to protect pedestrians and reduce fatalities. This includes expanding funding for Vision Zero initiatives, Complete Streets programs, and counterterrorism infrastructure.
- **Promote Cross-Agency Collaboration:** Urge transportation, urban planning, and counterterrorism agencies to work together to develop unified standards and prioritize resource allocation. Collaborative frameworks ensure that interventions address both safety and accessibility needs.

Action for Urban Planners

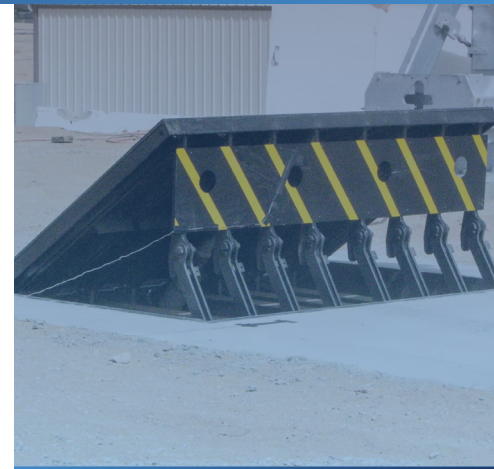
Urban planners play a critical role in designing secure and inclusive environments. By adopting innovative approaches and fostering community engagement, they can create lasting solutions:

- **Adopt Data-Driven Safety Interventions:** Leverage crash and fatality data, predictive analytics, and other empirical tools to identify high-risk areas and prioritize interventions. Evidence-based decision-making ensures that resources are allocated where they are most needed.
- **Engage Stakeholders in Designing Inclusive and Secure Public Spaces:** Collaborate with community members, local businesses, and public officials to ensure safety measures align with urban development goals. Stakeholder involvement enhances public trust and ensures solutions meet the population's diverse needs.

Partnering for Safer Cities

With our trusted partners like Ameristar, we provide tailored, SAFETY Act-compliant solutions for municipalities, businesses, and organizations. Together, we deliver the technologies, expertise, and support necessary to address today's urban safety challenges effectively.

By aligning the best technologies with informed planning and policy advocacy, municipalities can build urban environments that are not only secure but also inclusive and vibrant. The time to act is now. We invite urban planners, policymakers, and community leaders to collaborate with us in making cities safer for everyone.



Municipalities can enhance urban safety by leveraging trusted partnerships, implementing data-driven interventions, and advocating for strong policies for public spaces.



Solutions like Ameristar's SAFETY Act-compliant technologies, collaborative efforts can address complex safety challenges while fostering vibrant, accessible communities.



Conclusion

As cities evolve, so too do the challenges of ensuring urban safety. The rise of pedestrian fatalities and vehicle-ramming attacks demands proactive, innovative approaches that protect public spaces without compromising their accessibility, vibrancy, or functionality.

The Path Forward

To address these complex challenges, city planners must prioritize urban safety with solutions that are not only effective but also adaptable and visually harmonious with their surroundings:

- **Scalable, Flexible, and Aesthetically Integrated Solutions:** Implementing crash-rated barriers, portable systems, and street furniture that double as security measures allows cities to create safe environments while maintaining openness and usability. These solutions must be scalable to meet the unique needs of different urban areas, from bustling city centers to quiet residential zones.
- **Bridging Counterterrorism and Pedestrian Safety Programs:** The overlap between counterterrorism measures and pedestrian safety initiatives offers an opportunity to create comprehensive urban safety strategies. Integrating principles from programs like Vision Zero with advanced security technologies ensures that safety efforts address both intentional threats and everyday risks.

Call to Action

The purpose of this white paper extends beyond education—it is an invitation to action. MCA's team of security experts is ready to partner with city planners, urban developers, and municipal leaders to design and deploy tailored solutions that protect lives while preserving the character and accessibility of urban spaces.

- **Empower Decision-Makers:** Urban safety requires bold leadership and informed decision-making. MCA provides the expertise, resources, and cutting-edge solutions needed to implement effective, sustainable barrier systems. These measures enhance safety without sacrificing the openness and vibrancy that define thriving cities.

Partner with MCA

From crash-rated bollards to integrated security systems, MCA offers a comprehensive portfolio of solutions to meet the diverse needs of modern urban environments. By working together, we can build safer cities that balance security with accessibility and innovation.

We invite city planners and stakeholders to reach out to MCA's security experts to explore how we can help design and deploy these solutions—and others—across your community. Let's collaborate to protect and enhance the spaces where people live, work, and thrive.



About MCA

MCA is one of the largest and most trusted technology integrators in the United States, offering world-class voice, data, and security solutions that enhance the quality, safety, and productivity of customers, operations, and lives.

More than 65,000 customers trust MCA to provide carefully researched solutions for a safe, secure, and more efficient workplace. As your trusted advisor, we reduce the time and effort needed to research, install, and maintain the right solutions to make your workplace better.

Our team of certified professionals across the United States delivers a full suite of reliable technologies with a service-first approach. The MCA advantage is our extensive service portfolio to support the solution life-cycle from start to finish.

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The MCA logo is rendered in a white, sans-serif font. The letter 'C' is stylized with a blue circular graphic element inside it, consisting of a solid blue ring and a central blue dot. The background of the entire page is a dark blue gradient with abstract white and light blue geometric patterns, including a network of interconnected nodes and lines in the upper right corner and a grid-like pattern in the lower right corner.