

The Universal Spine

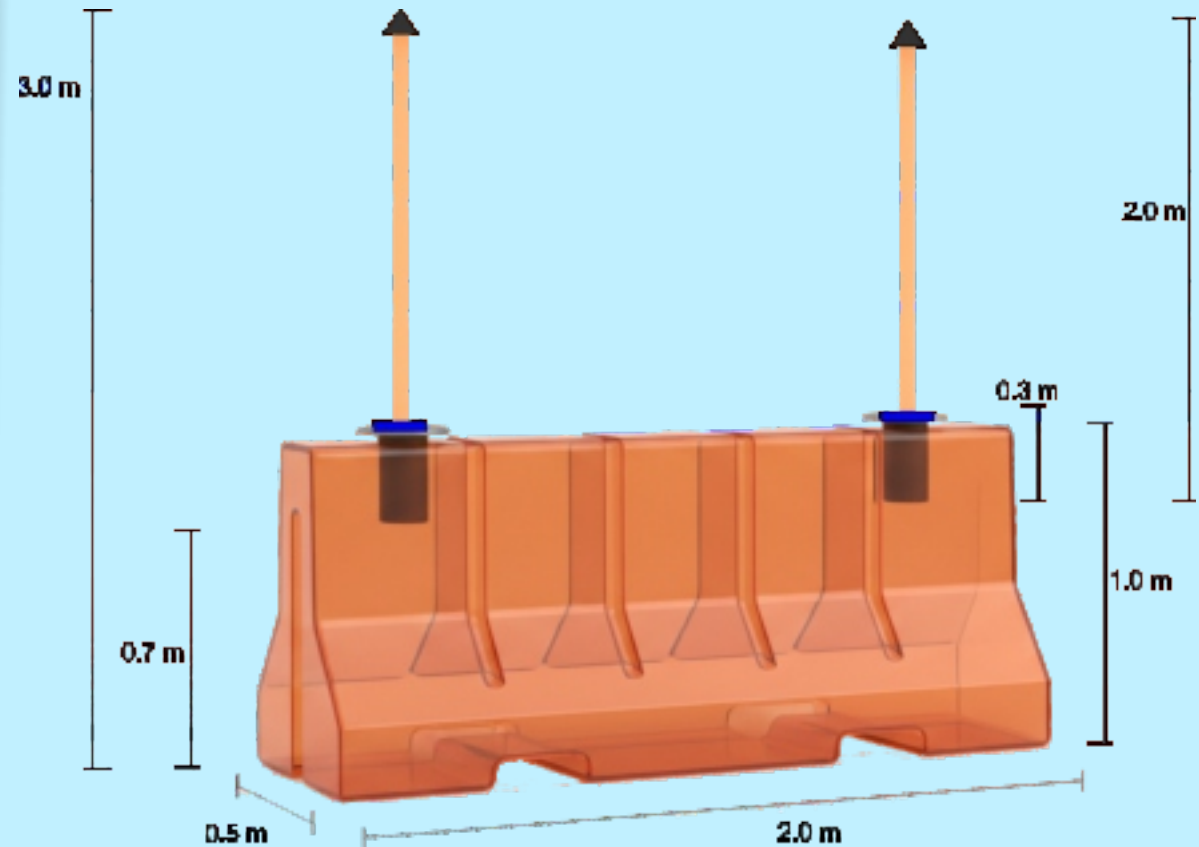
Redefining the Jersey Barrier as a
Modular Urban Infrastructure Hub.



Water filled HDPE Jersey Barriers can be manufactured with a reinforced receiving cylinder, molded at the base of the Barrier, directly below the screw cap of the water inlet.

This can allow the Screw Cap to be replaced by a locking collar that can accommodate tube (EN39) made of galvanized steel. The tube should have a diameter of 48.3mm (1.5") and a 3.2mm - 4.0mm wall thickness.

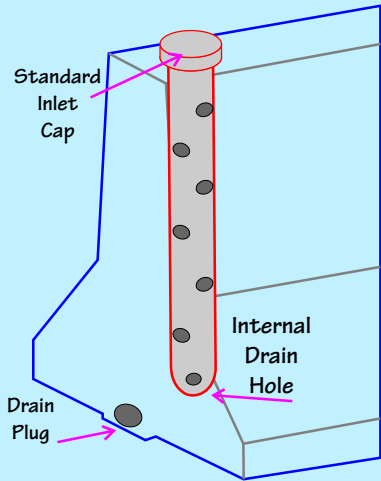
Therefore the Pipe Receiver should accommodate a maximum of a 2.0" diameter pipe when manufactured for temporary signage and fencing.



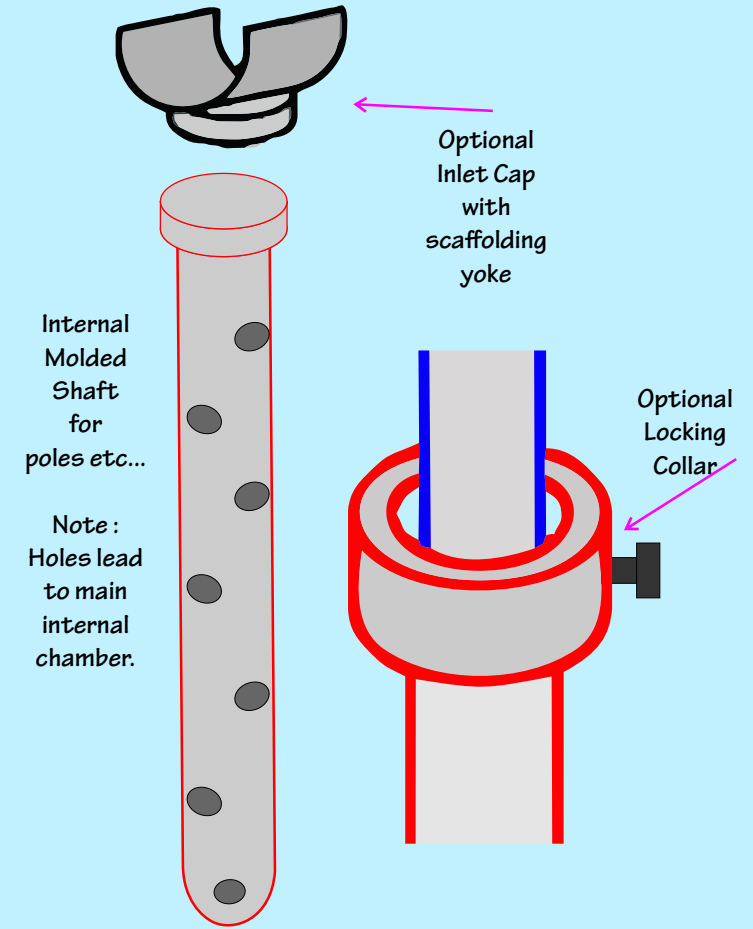
JERSEY BARRIER - P

INDUSTRIES
SECURITY

INNOVATION



Water inlet cap can double as a pole or scaffolding yoke to create joiners



From Passive Obstacle to Active Utility

Legacy Barrier

Single-use collision deterrent.



Fixed, static placement requiring heavy machinery to alter.



Passive, dependent on ambient light and highly susceptible to weather occlusion.



Smart Spine

Universal hub for secondary infrastructure.



Modular snap-in architecture for daily dynamic reconfiguration.



Dynamic LED arrays with wireless color-switching for real-time lane management.



Engineering the Universal Hub

Reinforced Receiving Cylinder

Molded directly at the base of the barrier, directly below the water inlet, acting as the primary anchoring point.

Optional Locking Collar



Scaffolding Yoke

The standard water inlet cap is engineered to double as a structural joiner.

Internal Molded Shaft

Runs the vertical length of the barrier, accommodating up to 2.0-inch diameter pipes directly into the main internal chamber.

Reinforced Receiving Cylinder



THE MAGNETIC QUICK-LOCK MECHANISM

A flush-mount, tamper-proof stabilization system designed for rapid municipal deployment.

1

INSERT

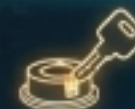
Align the cylindrical module with the bayonet-style mount.



2

LOCK

Utilize the proprietary magnetic key tool.



3

SECURE

Rotate the internal gear 90 degrees clockwise to lock upright.



**2-MINUTE TOOL-FREE
DEPLOYMENT**



MODULE 01: ACTIVE SPATIAL DEMARCATION

The primary 'Lightsaber' module integrates high-visibility LED illumination to provide clear visual guidance in high-stress, low-light urban environments.

99.9%

Uptime: High-efficiency, weather-resistant LED operation.

20%

Incident Reduction: Proven decrease in nighttime sideswipe collisions.

DYNAMIC COMMAND

Wireless, color-switchable LEDs to indicate merging, lane closures, or emergency access in real time.



MODULE 02:

HEAVY FENCING & CROWD CONTROL

Leveraging the internal molded shafts, the barrier transforms into an immovable foundation for site security and pedestrian management.



EN39 STANDARD INTEGRATION

The internal locking collars are explicitly dimensioned to accommodate standard 1.5-inch (48.3mm) galvanized steel scaffolding tubes with 3.2mm - 4.0mm wall thickness.



STRUCTURAL INTEGRITY

Creates a rigid, wind-resistant perimeter without requiring ground-penetrating anchors.



MODULE 03: RAPID EMERGENCY WAYFINDING

Dynamic urban environments require infrastructure that can pivot instantly. The multi-shaft design provides a dual-pole foundation for oversized temporary signage.

WIND-RESISTANT ANCHORING



The dual-shaft insertion prevents rotational shear on large, flat-surface signs.



IMMEDIATE DEPLOYMENT

Allows traffic control staff to snap in large-scale lane closure or directional signage in minutes, requiring no heavy machinery or secondary weighted bases.



One Standard Base. Infinite Applications.

By standardizing the foundational mold, municipalities transition from managing a fragmented inventory of single-use items to maintaining a single, universally adaptable site-management utility.



OPERATIONAL ECONOMICS

50% MAINTENANCE REDUCTION

The tool-free magnetic lock and 'Rapid Swap' capabilities halve the time required for installation and module replacement.

ASSET PRESERVATION

Drastically improved visibility limits accidental vehicle strikes, minimizing the need for costly concrete repair and replacement.

STANDARDIZED INVENTORY

Eliminates the need to procure, store, and transport separate weighted bases for fencing, signs, and lights.



Scaling the Intelligent Urban Fabric

The Metropolis 'Bright City, Safe Streets' pilot program represents the first step in scaling this modular infrastructure. As deployment moves from high-risk intersections to city-wide standardization, the universal spine lays the literal groundwork for integrating smart-city sensors and autonomous traffic guidance systems directly into the streets we drive on every day.



Proposal:

The "Lightsaber" Jersey Barrier System for Urban Safety



1. Executive Summary

Traditional Jersey barriers are passive, bulky, and often suffer from poor visibility in low-light conditions. This proposal advocates for the integration of active, high-visibility LED illumination (the "Lightsaber" concept) into standardized barrier infrastructure.

2. Technical Benefits

Enhanced Visibility: Active light strips drastically reduce nighttime collision risks by providing clear spatial demarcation in high-stress urban driving environments.

Dynamic Lane Management: Barriers equipped with color-changing LEDs can communicate traffic flow changes (e.g., merging, lane closures, or emergency vehicle access) in real-time. **Modular Maintenance:** These components are designed to snap into existing barrier profiles, allowing municipalities to upgrade legacy infrastructure without total replacement.

3. Economic & Social Impact

Reduced Infrastructure Damage: Improved visibility decreases "accidental strikes" by drivers, reducing long-term repair costs for the city.

Urban Aesthetics: Moves away from grim, industrial gray concrete toward a modern, legible, and intelligent urban fabric that feels safer for pedestrians and cyclists alike.

4. Implementation Strategy

Pilot Phase: Deploy on high-accident corridors.

Safety Audit: Analyze collision reduction metrics against standard reflective barriers.

Scalability: Integrate with smart city sensors for autonomous traffic guidance.



JERSEY BARRIER - P

INDUSTRIES

SECURITY

Rollout Strategy:
"Lightsaber" Barrier Integration 1.

Phased Pilot Deployment

Phase 1: High-Risk Intersections (Months 1-3):

Deploy at the five most congested, accident-prone intersections identified by municipal traffic data.

Monitor LED visibility impact and driver compliance.

Phase 2: Arterial Roadways (Months 4-8):

Install along high-speed medians and construction zones on major urban thoroughfares.

Phase 3: City-Wide Infrastructure (Months 9+):

1. Standardize replacement of passive barriers with the active Lightsaber modular system as part of routine roadwork.

2. Implementation Tactics

Infrastructure Adaptation: Retrofit existing barrier anchoring points to accommodate the modular magnetic base.

Maintenance Integration:

Utilize municipal night-crews for rapid, "no-tools" deployment; magnetic-key locking allows for 2-minute installation per segment.

Data-Driven Placement: Use heat maps of low-visibility accidents to prioritize barrier placement.

3. Communication & Public Safety

Public Awareness Campaign: "Bright City, Safe Streets" signage explaining the system's role in improving nighttime navigation.

Collaborative Feedback:

Implement a reporting portal for maintenance teams to track LED module status and report site-specific issues directly to central dispatch.

4. Operational Success Metrics

Performance: 20% reduction in nighttime sideswipe incidents.

Efficiency: 50% decrease in barrier maintenance/installation time compared to traditional systems.

Reliability: 99.9% uptime for integrated LED warning systems.

INNOVATION



FOR IMMEDIATE RELEASE

City Municipal Infrastructure Department Announces "Bright City, Safe Streets" Pilot Program
METROPOLIS, August 1, 2026 —

The City Municipal Infrastructure Department is proud to announce the launch of "Bright City, Safe Streets," a pioneering pilot program designed to enhance urban safety through the deployment of the next-generation "Lightsaber" barrier system.

Starting next month, the city will begin retrofitting major traffic arteries and high-risk intersections with these innovative, modular Jersey barriers. Unlike traditional passive concrete barriers, the Lightsaber system features integrated, high-visibility LED illumination, specifically engineered to improve visibility for drivers and pedestrians during nighttime, low-light, and adverse weather conditions.

"Our commitment is to leverage modern technology to create a safer environment for everyone," said Beau Nestor, Innovator for the Department of Municipal Infrastructure.

"The 'Lightsaber' barriers represent a significant leap forward. They provide immediate, intuitive visual guidance that we expect will drastically reduce sideswipe accidents and improve overall traffic flow."

Key benefits of the pilot program include:

Enhanced Visibility: Active LED light rods that make construction zones and medians clearly visible from hundreds of yards away.

Rapid Deployment: A modular, magnetic-locking design that allows maintenance crews to install or reconfigure safety zones in minutes rather than hours.

Sustainability & Reliability:

High-efficiency LED components that offer long-lasting, weather-resistant operation with minimal maintenance. The city encourages residents to visit www.domistat.com to learn more about the program, view project timelines, and provide feedback as we work together to build a brighter, safer city.

