



Fundamental Technical Support
Engineering Excellence | Infrastructure Solutions

Building Safer Roads & Smarter Infrastructure

Comprehensive Road Safety & Lighting
Infrastructure Services Brochure



- Guard Rail
- Bridge Railing
- Light Poles
- Solar Light
- Sign Signal
- Road Marking
- Epoxy Floor
- Kerb Stone

What's Inside

Navigate through our comprehensive service offerings and expertise

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Who We Are

Your trusted partner in road safety and infrastructure engineering

Fundamental Technical Support (FTS) is a specialized engineering company dedicated to providing high-quality road safety infrastructure, lighting systems, and civil infrastructure solutions. We work closely with government agencies, infrastructure developers, and construction firms to deliver safe, durable, and internationally compliant solutions.

OUR MISSION

To deliver safe, reliable, and innovative infrastructure solutions that enhance road safety and transportation quality across Bangladesh and beyond.

OUR VISION

To become the leading infrastructure solutions provider in South Asia, recognized for engineering excellence, quality standards, and commitment to public safety.

Our Key Strengths

9+

Service Lines

100%

Quality Assured

Int'l

Standards

End-to-End

Solutions

Our Services At A Glance

- W-Beam Guard Rail System
- Bridge & Culvert Railing
- Light Pole Systems
- Solar Lighting
- Industrial Lighting
- Sign & Signal Systems
- Road Marking
- Epoxy Flooring
- Kerb Stone & Pavement Tiles

The W-Beam Guard Rail System is one of the most widely used roadside safety barriers in modern highway engineering. Designed to prevent vehicles from leaving the roadway and reduce accident severity by absorbing impact energy and redirecting vehicles safely back onto the road. FTS provides professional design, supply, and installation supervision for highways, bridges, urban roads, and high-risk transportation corridors.

Guard Rail:



Channel



Hollow Offset Block

Guard Rail Posts



Safeway Guardrail



C post



H post

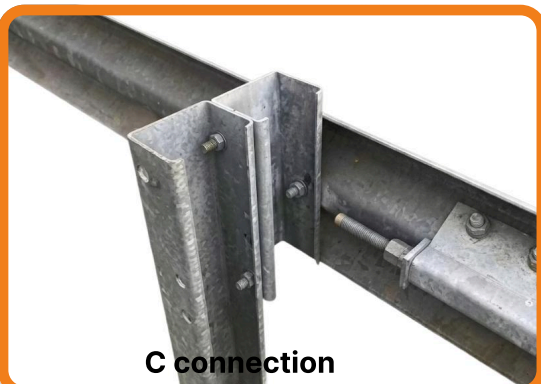


U post



Round post

Guard Rail Connectors



C connection



U connection



H Connection

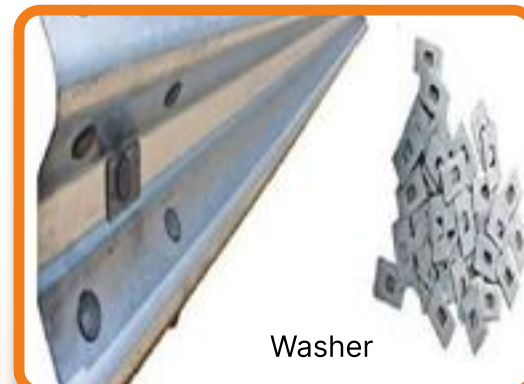
Bolts & Nuts



Short MS Nut Bolt



Long MS Nut Bolt

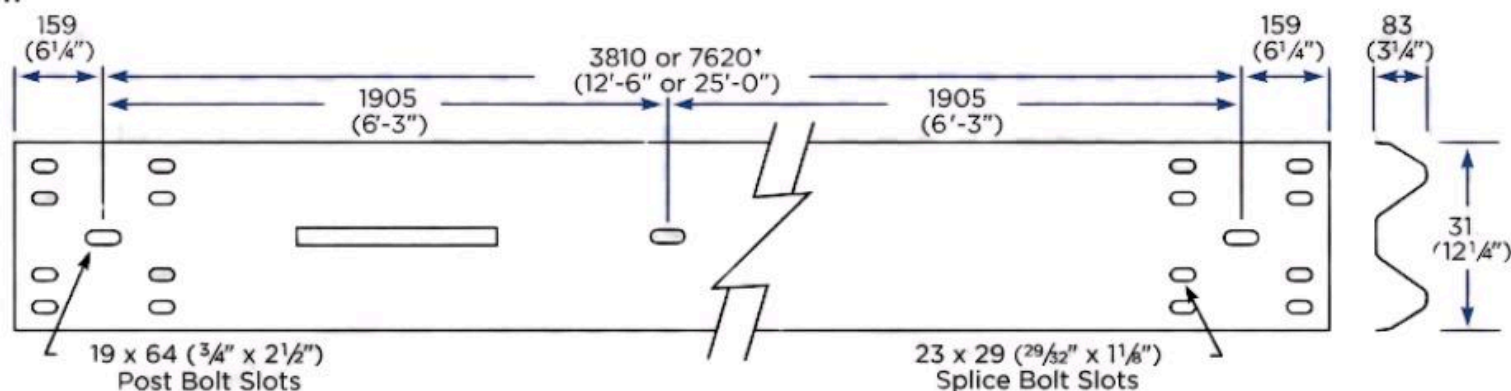


Washer

Specification

Guardrail

W-Beam



Dimensions and Mechanical Properties (Uncoated)

Thickness (mm)	2.67	3.43
Beam width, minimum (mm)	305	305
Beam depth, minimum (mm)	76	76
Cross-sectional area (mm ²)	1 297	1665
Moment of inertia (mm ⁴)	973 980	1 252 860
Section modulus (mm ³)	22 778	29 005
Weight (approximate) (kg/m)	10,15	13,05

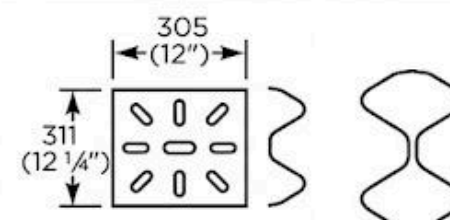
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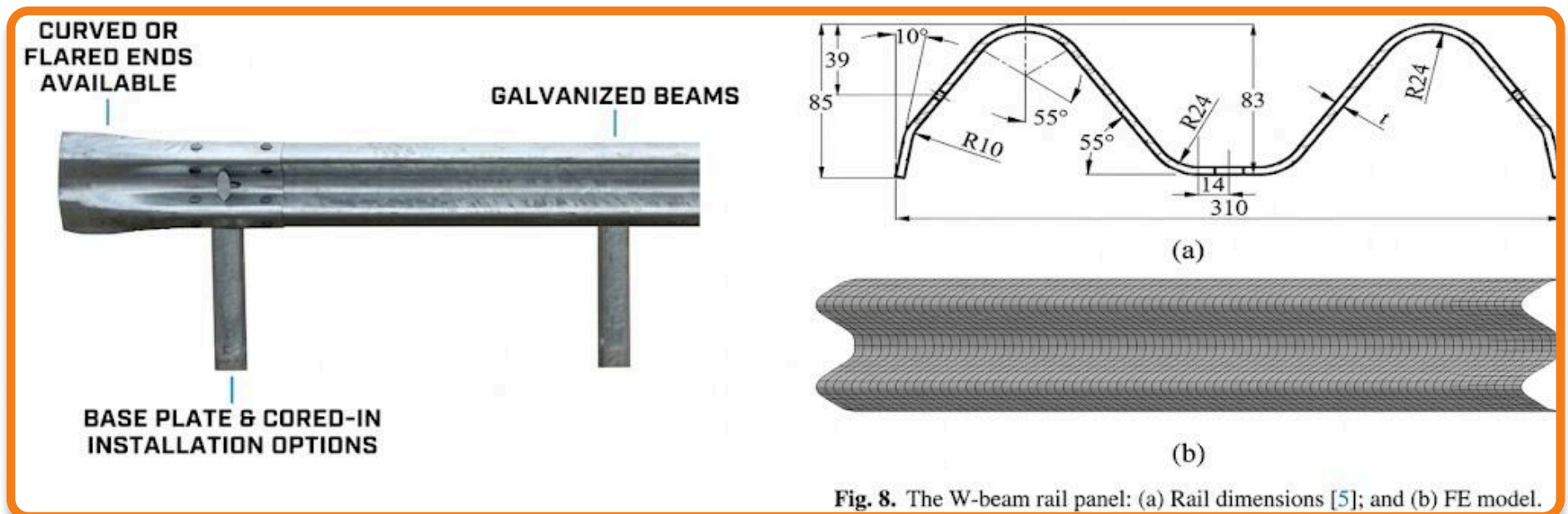
- Tubular W-Beam Rail and Components available upon request
- Order thicknesses is 2.8mm and 3.5mm respectively

Centre Punching

3810mm	Spacing	7620mm
8G	3810mm O.C.	58G
9G	1905mm O.C.	60G
11G	952mm O.C.	61G

Back-Up Plate 3G





Applications

- National & Regional Highways
- Bridge Approaches
- Sharp Curves & Mountain Roads
- Roadside Embankments & Slopes
- Urban Road Improvements
- Infrastructure Projects

Our Services

- Guard rail system design & layout planning
- Installation supervision & project management
- Compliance with international safety standards
- Engineering consultancy & safety assessment
- Inspection and maintenance guidance
- Supply of guard rail components & hardware

Our Commitment

At Fundamental Technical Support, we focus on engineering solutions that enhance transportation safety and infrastructure reliability. Our guard rail systems are designed to provide maximum roadside protection while ensuring durability and performance under real-world conditions.

Bridge and Culvert Railings are essential safety components installed along bridges and culverts to prevent vehicles and pedestrians from falling off the structure. These railings provide both structural protection and roadway safety, especially in high-traffic areas and elevated road sections. FTS offers professional design, supply, and installation supervision of bridge and culvert railing systems.

Bridge & Culvert Railing:



Applications

- Highway bridges
- Elevated roadways
- Urban flyovers
- Pedestrian bridges
- Rural culverts
- Infrastructure development projects

Our Services

- Design and detailing of railing systems
- Material specification & procurement support
- Maintenance and inspection guidance
- Structural safety assessment
- Installation supervision & quality control
- Engineering consultancy services

Our Commitment

At Fundamental Technical Support, our bridge and culvert railing solutions are engineered to enhance transportation safety, protect infrastructure, and ensure long-term structural reliability across all types of elevated road structures.

Light poles are essential components of modern transportation infrastructure, designed to provide adequate illumination for roads, highways, bridges, and public spaces. Proper roadway lighting significantly improves driver visibility, traffic safety, and nighttime mobility. FTS provides professional design, supply, and installation supervision of light pole systems.

Light Pole:



Applications

- National Highways
- Urban Road Networks
- Bridges and Flyovers
- Parking Areas & Terminals
- Industrial Zones
- Public Infrastructure Projects

Our Services

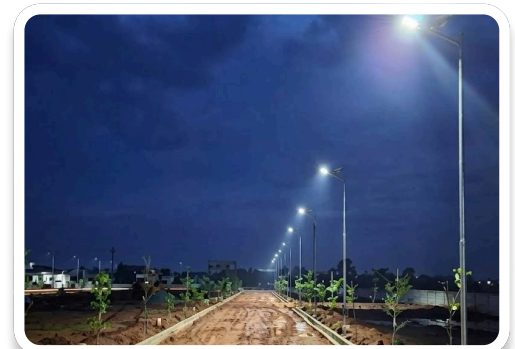
- Lighting system design & layout planning
- Pole structural & foundation design
- Supply and installation supervision
- Energy-efficient LED lighting solutions
- Inspection and maintenance planning
- Project management & quality control

Our Commitment

At Fundamental Technical Support, we deliver reliable and efficient lighting infrastructure solutions that improve road safety, operational efficiency, and urban development through cutting-edge technology and engineering expertise.

Solar lights are energy-efficient lighting systems powered by solar energy. These systems use solar panels to capture sunlight and convert it into electricity, stored in batteries and used to power LED lights during nighttime. FTS provides professional design, supply, and installation supervision of solar lighting systems for highways, rural roads, urban streets, parks, and infrastructure projects.

Solar light:



Applications

- Rural roads and highways
- Bridges and culverts
- Parks and public spaces
- Parking areas
- Residential areas
- Industrial zones
- Remote locations without grid electricity

Our Services

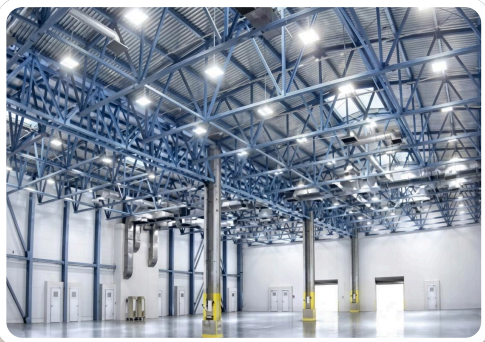
- Solar lighting system design & planning
- Energy requirement assessment
- Supply and installation supervision
- Smart lighting control integration
- Maintenance and performance monitoring
- Battery system & panel management

Our Commitment

At Fundamental Technical Support, we promote sustainable infrastructure solutions by integrating renewable energy technologies that enhance road safety, reduce energy costs, and support environmental protection for future generations.

Industrial lighting systems are designed to provide powerful, reliable illumination in large working environments such as factories, warehouses, workshops, and industrial facilities. Proper industrial lighting improves workplace safety, operational efficiency, and productivity. FTS provides professional design, supply, and installation supervision of industrial lighting systems tailored to meet modern facility requirements.

Industrial Lighting



Applications

- Manufacturing plants
- Warehouses & storage facilities
- Industrial workshops
- Construction sites
- Logistics centers
- Ports and industrial yards

Our Services

- Industrial lighting system design & planning
- Energy-efficient LED lighting solutions
- Supply and installation supervision
- Lighting performance analysis
- Maintenance & system optimization
- Custom lux level design per requirements

Our Commitment

At Fundamental Technical Support, we deliver high-performance industrial lighting solutions that enhance safety, productivity, and energy efficiency across all types of industrial environments and large-scale facilities.

Traffic Sign and Signal Systems are essential components of modern road infrastructure. They help regulate traffic movement, provide important information to drivers, and improve road safety and traffic efficiency. FTS provides professional design, supply, and installation supervision for highways, urban roads, intersections, and infrastructure projects.

Sign & Signal Systems



Applications

- Urban road intersections
- National highways
- Municipal roads
- School zones
- Construction zones
- Infrastructure projects

Our Services

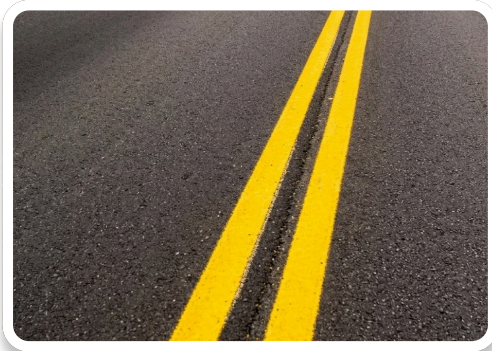
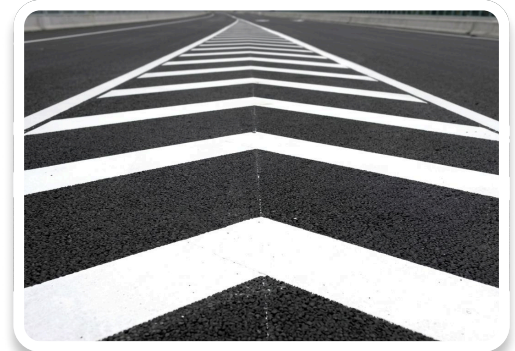
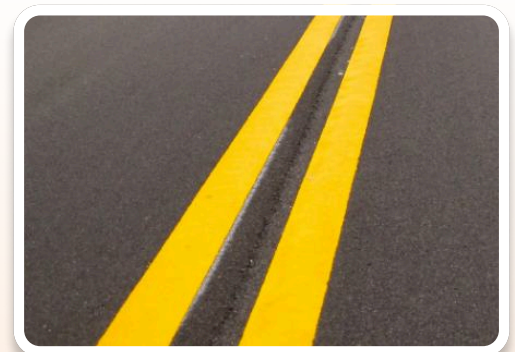
- Design and layout planning of traffic sign systems
- Comprehensive road safety assessment services
- System maintenance and inspection support
- Traffic signal design and installation supervision
- Supply of high-visibility reflective traffic signage
- Customized road safety symbols and traffic signs

Our Commitment

At Fundamental Technical Support, we deliver advanced traffic management solutions that improve road safety, traffic efficiency, and transportation reliability.

Road markings are critical visual tools for guiding traffic, improving road safety, and enhancing driver awareness. They define lanes, pedestrian paths, turning areas, and hazard zones, ensuring smooth and safe traffic flow. FTS provides professional design, supply, and application supervision using high-quality thermoplastic paint and reflective materials.

Road Marking & Epoxy:



• Customizable — Lines, symbols, crossings, arrows, and hazard

Applications

- National and regional highways
- Pedestrian zones and crosswalks
- Industrial and commercial facilities
- Urban roads and intersections
- Bridges and flyovers
- Parking lots and internal roadways

Our Services

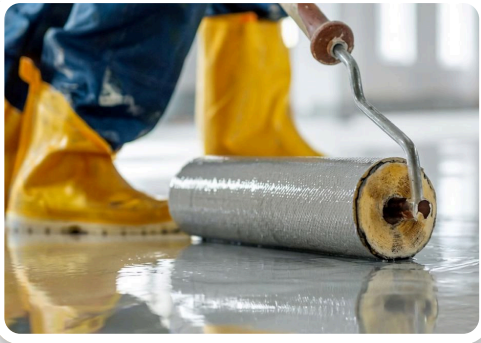
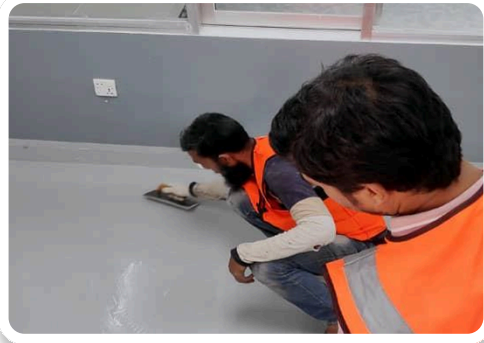
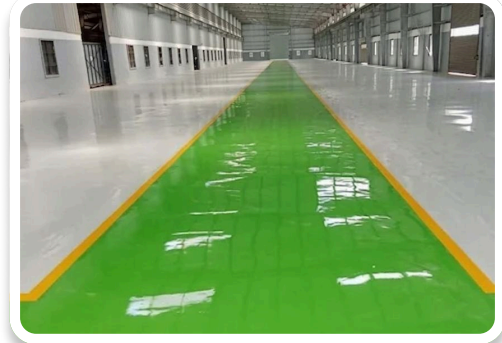
- Design and layout planning of road marking systems
- High-quality thermoplastic and reflective paint application
- Inspection and quality assurance services
- Maintenance and re-marking services for worn markings
- Customized road safety symbols and directional markings
- International road marking standard compliance review

Our Commitment

At Fundamental Technical Support, we deliver high-visibility, durable, and safe road marking solutions that guide traffic, reduce accidents, and ensure efficient road and highway operations.

Epoxy flooring is a high-performance, resin-based flooring system widely used in industrial, commercial, and institutional facilities. It provides durable, chemical-resistant, and aesthetically appealing surfaces suitable for heavy-duty use. FTS offers professional design, supply, and application supervision of epoxy flooring systems, ensuring safety, durability, and high-quality finishes.

Epoxy Flooring



Applications

- Industrial factories and warehouses
- Laboratories and healthcare facilities
- Food processing and pharmaceutical plants
- Commercial offices and showrooms
- Parking lots and garages

Our Services

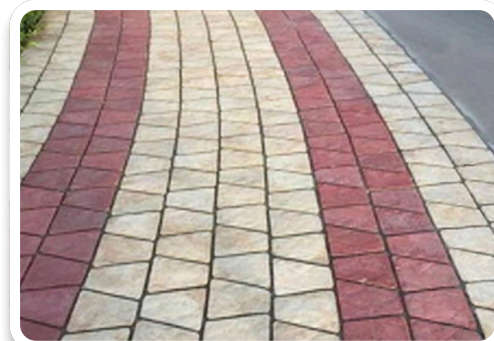
- Surface assessment and design planning
- Premium epoxy material selection and procurement
- Expert supervision of epoxy application process
- Custom colors, textures, and anti-slip finishes
- Long-term maintenance guidance and performance tips
- Inspection and quality assurance throughout project

Our Commitment

At Fundamental Technical Support, we deliver high-quality epoxy flooring solutions that combine durability, safety, and aesthetics, ensuring maximum performance in industrial, commercial, and institutional environments.

Kerb stones and pavement tiles are essential elements of roadside infrastructure and pedestrian areas, providing structural support, drainage control, and aesthetic appeal. Properly installed curb stones protect roads from erosion and channel water, while pavement tiles provide safe, durable, and attractive walking surfaces.

Kerb Stone & Pavement Tiles



Applications

- Urban streets and sidewalks
- Parks, plazas, and pedestrian zones
- Parking lots and residential areas
- Highway medians and road edges
- Industrial and commercial walkways

Our Services

- Design and layout planning for roads and pedestrian areas
- Premium curb stone and pavement tile procurement
- Expert supervision of installation and quality assurance
- Maintenance and repair guidance for long-term performance
- Custom patterns, colors, and anti-slip finish options
- ADA-compliant pathways and accessibility-focused design

Our Commitment

At Fundamental Technical Support, we deliver high-quality curb stones and pavement tiles that combine durability, functionality, and aesthetics, enhancing both road safety and pedestrian infrastructure.

Why Choose FTS?

Engineering Excellence, Safety, and Reliability — Our Promise to Every Project

Fundamental Technical Support (FTS) is your trusted partner for comprehensive road safety and infrastructure solutions. We bring technical expertise, quality materials, and dedicated project management to every engagement.

01

Proven Expertise
Decades of experience in road safety engineering and infrastructure development across Bangladesh.

02

Full-Service Solutions
From design and supply to installation supervision — we handle every phase of your project.

03

International Standards
All systems designed to comply with recognized international highway and safety standards.

04

Quality Materials
We source and supply only high-grade, corrosion-resistant, and durable infrastructure materials.

05

On-Time Delivery
Strong project management practices ensure timely execution and delivery of every project.

06

Dedicated Support
Ongoing maintenance guidance, inspection, and after-service support for all our solutions.

Complete Range of Services

FTS delivers end-to-end infrastructure solutions including:

✓ W-Beam Guard Rail Systems

✓ Bridge & Culvert Railing

✓ Light Pole Systems

✓ Solar Lighting

✓ Sign & Signal Systems

✓ Road Marking

✓ Epoxy Flooring

✓ Kerb Stone & Pavement Tiles

✓ Industrial Lighting

9+
Services Offered

100+
Projects Completed

10+
Years Experience

24/7
Support Available

"Engineering solutions that enhance transportation safety and infrastructure reliability."

Get In Touch

We're ready to deliver engineering solutions that protect lives and build better infrastructure.

**Address**

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Our Services

- ✓ W-Beam Guard Rail System
- ✓ Bridge & Culvert Railing
- ✓ Light Pole Systems
- ✓ Solar Lighting
- ✓ Sign & Signal Systems
- ✓ Road Marking
- ✓ Epoxy Flooring
- ✓ Kerb Stone & Pavement Tiles
- ✓ Industrial Lighting

Contact Us Today for a Free Consultation

Our engineering team is ready to assess your project requirements.

"Engineering solutions that enhance transportation safety and infrastructure reliability."