

WELCOME TO OUR COMPANY :

About Us :

IIDPL is a multidimensional company in construction industry & having State-Of-Art 55,000/- Sq. feet manufacturing facility in Howrah at West Bengal. We are pleased to introduce ourselves as one of the leading and promising Profiler of Colour Coated Steel Galvalume (PPGL), Z & C Purlins, Accessories [Flashings], Polycarbonate Sheet, FRP Sheet and many more from eastern India. **Imperial Infrastructure & Dredging Pvt. Ltd.** (IIDPL), a professionally managed ISO 9001:2005 Certified Company located in "Kolkata" the Capital City of West Bengal. The company established in the year 2008, is one of the emerging engineering companies in eastern part of the country engaged in providing entire range of Roofing and Cladding, Metal Sheets & Structure Solutions. The products of the company are sold in the Brand Name of "**GHNISHITM**". Quite a good number of professionals from Engineering & Management background have joined the company and accepted the challenge of making the company a customer friendly institution with commitment of quality & performance.

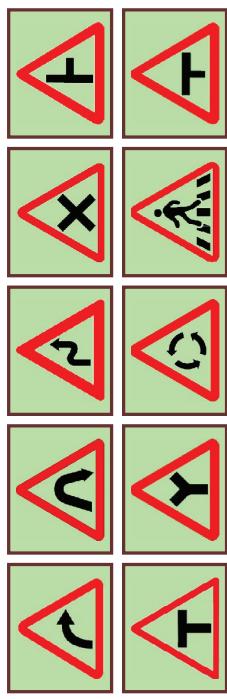
Vision :

We at **Imperial Infrastructure & Dredging Pvt. Ltd.** are determined to win the confidence of all our Customers by way of the Exemplarily "Before and After Sales Services", positioning ourselves as "Best Quality Supplier". Develop the friendly relations with all our valued customers & suppliers. It is our determination to enrich the knowledge and work culture of the employees & service providers and most importantly, create qualitative value for the Company & Shareholders.

Mission :

Our mission to work with full determination to satisfy all our customers in every aspect. Our conducted every deals with our valued customers will be full of transparency and value for money.

Cautionary Signs :



Shoulder Mounted Signage :



Median Maker :



Overhead Gantry :



Cantiliver :



ROADTEK™ Product & Service range :

With an exponential growth of vehicular traffic, the pedestrians in the city are often exposed to accident and are marginalized in the mobility network. The pedestrians are invariably channelized on the narrow footpaths which sometimes are encroached. They are expected to use the pedestrian underpasses or foot-over bridges to cross the high volume traffic roads. With the increasing flyovers and speeds, the frequency of accidents involving the pedestrians has increased. With the objective to ensure the entitlements of the pedestrians in terms of mobility, safety and convenience, slow and fast vehicular traffic crash barriers, dividers and pedestrian's railings on the central verge are provided, together with Foot Over Bridges (FOB), Sub-ways etc. Many times the FOB's and sub-ways are underused as they cause inconvenience and insecurity to the users. As a result, the pedestrians are seen jaywalking and climbing over the barriers and railings in order to

METAL BEAM CRASH BARRIER :

Crash Barriers are designed to withstand the impact of vehicles of certain weights at certain angle while traveling at the specified speed. They are expected to guide the vehicle back on the road while keeping the level of damage to vehicle as well as to the barriers within acceptable limits. Ideally a crash barrier should present a continuous smooth face to an impacting vehicle, so that the vehicle is redirected, without overturning, to a course that is nearly parallel to the barrier face and with a lateral deceleration, which is tolerable to the motorist. To achieve these aims the vehicle must be redirected without rotation about both its horizontal or vertical axis (that is, without 'spinning out' or overturning), and the rate of lateral deceleration must be such as

According to IRC, following are the categories of crash barriers :

Category	Application	Containment for
P-1 : Normal Containment	Bridges carrying expressway, or equivalent	15 kN vehicle at 110 km/h, and 20 degree angle of impact.
P-2 : Low Containment	All other bridges except bridge over railway	15 kN vehicle at 80 km/h, and 20 degree angle of impact.
P-3 : High Containment	All hazardous and high risk locations, over busy railway lines, complex interchanges, etc.	30 kN vehicle at 60 km/h, and 20 degree angle of impact.

Mandatory Signs :




Unique Features :

- ◆ ROADTEK™ tested and proven barriers ensure minimum damage to the vehicle and its occupants.
- ◆ Reducing the likelihood of a vehicle crossing the central reserve and reaching the opposite carriageway.
- ◆ During collision the Metal Beam Crash Barrier absorbs maximum energy by flattening out and laterally restrains the vehicle from veering over.
- ◆ Prevents the vehicle from sliding back onto the carriageway by controlled exit angles by gradual declarations and effective redirection of the vehicle back onto the road.
- ◆ Provides a good visual guide to the drivers especially in the night.
- ◆ All components are hot dip galvanized for longer life (having a life of 25 to 50 years).
- ◆ Minimising the damage to a barrier and vehicle, following vehicle strike and also reducing the risk to the workforce and work related congestion.
- ◆ ROADTEK™ Metal Crash Barriers are maintenance-free and easy to replace.
- ◆ **Metal Beam Crash Barriers** are very cost effective and environment friendly solution rather than other

Applications :

- ◆ As restraining barriers on embankments of expressways & Highways.
- ◆ As containment barriers on medians and grade separators of four / six lane roads.
- ◆ As protection barriers / containment barriers for hilly terrains and ghat roads.
- ◆ As race car crash guards on car racing tracks.
- ◆ For interior traffic safety at Airports, Plant handling hazardous chemicals, mines, collieries, etc.
- ◆ As fencing barriers for country border lines, expansive lands, water bodies, bridge piers, signposts, rocky area

ROADTEK™ W BEAM CRASH BARRIER :

- ◆ Cold roll formed in thickness range of 2 - 3 mm.
- ◆ Raw material conforming to IS 5986 Grade : Fe 360 / Fe 410 / Fe 510, IS 10748 Grade II or equivalent.
- ◆ Hot dip galvanized to 550 gsm / sq.

'W' BEAM Technical Data :

Thickness	Effective Length	Overall Length	Section Area (cm ²)	Moment of Inertia I-xx (cm ⁴)	Moment of Inertia I-y (cm ⁴)	Section Modulus Z-xx (cm ³)	Section Modulus Z-y (cm ³)
3.00 mm	4000mm	4318mm	14.35	1328.8	106.15	88.8	24.57
W Beam							
<i>3/2.67</i>							
<i>312</i>							
<i>159</i>							
<i>2000</i>							
<i>216</i>							
<i>4000</i>							
<i>159</i>							
<i>194</i>							
<i>83</i>							
Technical Data :							
Ix = 1311.0 cm ⁴							
Iy = 106.0 cm ⁴							
Zx = 27.51 cm ³							
Zy = 1.46 cm ³							
Ix = 270.21 cm ⁴							
Iy = 25.0 cm ⁴							
Zx = 5.14 cm ³							
Zy = 0.49 cm ³							
Area = 13.35 cm ²							
W = 19.4 kg/m							

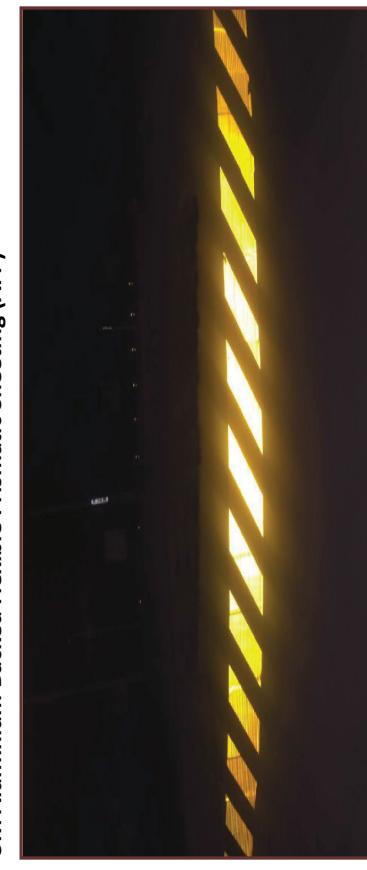
Hazard Marker :

Roll Up Sign Spring Post :

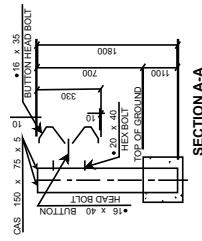
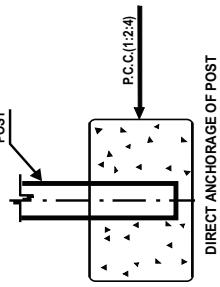
Application :

Center Line Division, Dangerous U-Turns, Dangerous Medians, Construction Zone, No-Entry Zone, Multi Lanes, Centre Verge, Sharp Curves, Parking Lots, Highways, T-Zone.

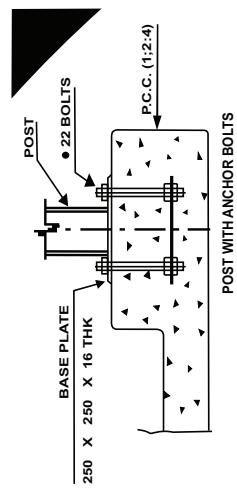
3M APRL Camera :
Unique Features :


3M Retro-Reflective Sign Boards (Type - IX Grade)**3M Aluminium Backed Flexible Prismatic Sheeting (AFP)**

Colour Available : White-Red Combination, Dual-sided

3M Rigid Retro Reflective Delineator :**General Arrangement :****Typical Foundation :**

POST WITH ANCHOR BOLTS



POST

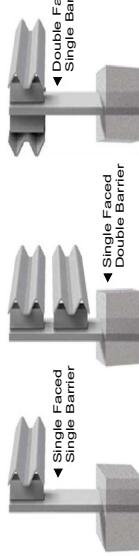
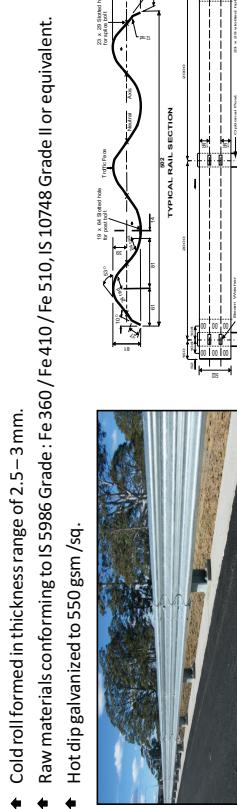
DIRECT ANCHORAGE OF POST

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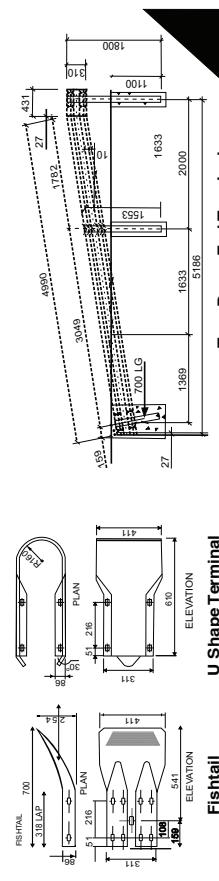
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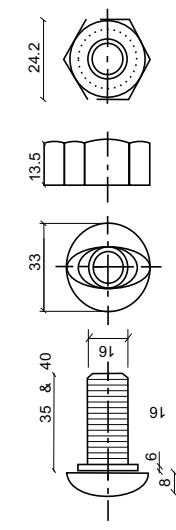
Types of ROADTEK™ W Beam Crash Barriers :**ROADTEK™ Thrie Beam Crash Barrier :**

End Specials :

- 3 mm / 2.67 mm thick turned down end terminals.
- 3/2.67 mm thick press formed end terminal (Fish tail).
- 3/2.67 mm U shaped terminals as median end terminals.

**Fasteners :**

- M20 and M16 fasteners as per IS 1367 Grade 4.6/8.8
- Hot Dip Galvanized

**Posts & Spacer :**

- Cold roll formed in thickness of 5.00 mm 4.2 mm
- Raw material conforming to IS 5986 Grade : Fe 360 / Fe 410, IS 10748 Grade II or equivalent.
- Hot dip galvanized to 550 gms sq.m.

Anchorage :

- Anchored in ground as per Clause 810.
- Anchored in concrete on shoulders (if specified).
- Anchored in concrete with base frame on bridges.

Thermoplastic Road Demarking :

Hot applied thermoplastic compound 2.5 mm thick, including reflectorizing glass beads @ 250 grams per sq.m.area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC : 35. The finished surface to be level, uniform and free from streaks and holes, complete in all respect as per clause 803 of specification for Road and Bridge works of MORT & H's(5th Revision) with reflective warranty of 1 year. Brand

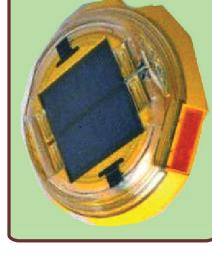
**Traffic Safety Cone :**

Colour Available : Red, Blue with white Reflective Band.

50 hours. The height, width and length of the marker shall not be less than 10 mm x 100 mm. Also, the surface diameter of the marker shall not be less than 100 mm respectively. The weight of the marker shall not exceed

3M Solar RPM is designed for superior performance and increased run time. It comes with unique 360 degree smooth illumination and 3M™ Retro-Reflective lens. The uniquely designed honeycomb patterned base and twin moulded shanks provide better anchorage for longer road presence. 3M Solar RPM exceeds the

Features	Advantages	Benefits
Highly engineered thermoplastic body.	Increased compressive load Strength(20 tons+)	Improves product life and prevents from breaking.
Uses only 2 LEDs	Lower consumption of battery power during condition of no sunlight and improves the life of the	Ensures product performs for long time.
Light Guide Technology	Provides 360 degree illumination	Uniform visibility from different
Twin Shanks	Prevents disorientation and chipping off and reduces replacement cost Helps in alignment and making	Long term durability
Sleep Current <20	Prevents energy loss from battery	Ensure longer performance time.
3M Retro-Reflective	Back-up conspicuity in passive mode	Solar RPM will continue to work.
Unique honeycomb pattern base by retaining more epoxy	Provides stronger adhesion to the	Improves road presence.
Uniform light distribution	Makes the RPM smoother to look at.	Prevents distraction of motorists.



Colour Available : Yellow with Yellow Reflectors, White with White Reflectors, White with Red Reflectors

ROADTEK™ Metal Beam Crash Barriers conforming to all major specifications like :

- Ministry of Road Transport & Highways, India (MORTH)
 - American (AASHTO M 180)
 - Euro norm (EN 1317 -1 & 2)
- Why ROADTEK™ Metal Beam Crash Barrier ?**
- ♦ Robustly constructed from high quality raw materials.
 - ♦ Confirms to National & International Standards - MORTH, INDIA Clause No. 810, American Standard (AASHTO M180), European Standard (EN1317-1 & 2).
 - ♦ Raw materials from the highly reputed BIS approved companies such as TATA Steel and SAIL.
 - ♦ Strict Quality Control & Quality Systems (ISO9001 : 2015)
 - ♦ High reputation in Govt. and Private Sectors.
 - ♦ Strict Delivery commitment.

3M Raised pavement marker (RPM) :

Reflective Raised Pavement Marker 3M series 290 or equivalent conforming to relevant BS & ASTM Codes and its provision. The pavement marker should be aesthetically conforming to the Ministry of surface Transport(Department of Road Transport & Highway), Government of India. The Marker size should not exceed the height 20 mm, length 100mm and width 100mm, with Twin moulded shanks size not exceed 25 mm.

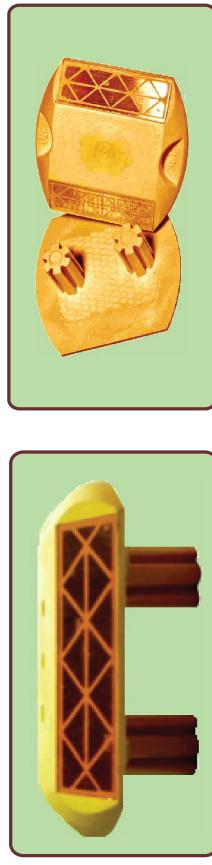
The marker should only be installed with 3M or equivalent grade made Epoxy/Adhesive.

The Series 290C / 290CE IN RPM's feature a revolutionary Moulded Twin Shank design that prevents displacement / disorientation post - installation. With class leading retro-reflective properties, unbeatable all weather durability, proven performance and the all-new moulded twin shanks, 3M Moulded Twin Shank RPM's

Features	Advantages	Benefits
Unique Design	Good retro reflective performance for wide range of	Optimum for various kinds of roads like straight/ curve, etc.
Tough Thermoplastic body	High impact resistance and high compressive load	Longer road presence, lower lifecycle cost.
Micro prismatic lenses.	Higher conspicuity and night time visibility	Improve safety reduced shy distance.
No exposed edges.		Longer product life.
Robust Installation.	Reduced chances of product pilferage	Longer road presence.



Features	Advantages	Benefits
Shanks to provide extra anchorage.	Can bear extra shear.	Higher durability.
No metal parts used for anchoring, anchor is molded as part of body.	No extra effort or material required while installation.	No hazard caused to traffic, easy installation.
Excellent Weatherability.	Sustained product performance over longer period of time.	Reduced lifecycle cost and less chances of product failure.



Colour Available : White, Yellow, Amber, Red & Red White.

3M Flexible Median Marker :

Flexible Median is made from a combination of tough, high impact resistant engineering thermoplastic material with U shape structure having rebound / bounce-back property. The fluorescent yellow reflective sheeting in the FMM helps to highlight the medians and increase the visibility during the night.

Dimensions : Overall Height : Min 181
 Shank Depth : Min 30mm
 Overall Width : Min 120 mm
 Body Thickness : Min 6.5 mm
 Sheetng : Fluorescent Yellow

Product Features :

Features	Advantages	Benefits
Innovative Flame like Design Structure	Better visual appearance	Increase visibility at night for safe driving
Flexible Thermoplastic Body	Bounce Back on impact	Vandal proof against impact Lesser chances of people tripping
Vertical 90 degree installation to Median	Increased reflectivity	High reflectivity gives better visual appearance to the driver
Fluorescent Type XI DG 3 Reflective Sheetng	Long Distance visibility in day &	Provides longer response time for

Features	Advantages	Benefits
RPM Like Shank	Reduced installation time	Increases productivity lead in reduction of labour charges
Shank Based Grouting	Narrow footprint of FMM	Easy installation on narrow width medians. Reduced epoxy
Edge Scaled Reflective Sheetng	Vandal resistant against sheeting	Longer durability & reflectivity service life
High performance Thermoplastic engineering Grade material	Better performance	Long term durability

Reflective Sheetng Characteristics :

The flexible median marker shall have U shaped fluorescent yellow color retro-reflective sheeting with minimum exposed reflective area 75 cm². The reflective sheeting should conform to Type XI Fluorescent Yellow sheeting as per IRC 67 2012 and ASTM D 4956-11. The third party test report for reflective sheeting shall be submitted along with product information. The minimum coefficient of retro reflection (Ra) should be

Minimum Initial Coefficient of Retro-reflection (Ra) for Retro-Reflective sheeting used in median Marker (cd/lux/m²)(Confirming to ASTM D 4956 type XI specification)

Observation Angle (θ)	Entrance Angles (φ)	Fluorescent Yellow
0.2	-4	350
0.2	+30	130
0.5	-4	250
0.5	+30	90
1.0	-4	72
1.0	+30	24

The retro-reflective sheeting shall be on both sides of the flexible Median Marker and shall be edge protected with no exposed edges which will prevent edge lifting, vandalism, sheeting damage, etc. The edge of sheeting shall not come out easily by putting nails, sharp objects etc. The long of the manufacturer shall be embossed on either side of the body.

3M Solar Raised Pavement Marker :

3M Solar Raised Pavement Markers made of polycarbonate moulded body with circular shape, Solar powered, LED self-illumination in active mode, 360 degree illumination and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face in passive mode. The marker shall support a load of 20000 kg. tested in accordance to ASTM D4280. The marker should be resistant to dust and water ingress according to IP 65 standards and should withstand temperatures in the range of 0 C to 70 C. Colour of lighting could be provided in red or yellow (amber) as per requirement and typical frequency of blinking is 1 Hz. There should be current losses of less than 20 microamperes at 2.4 V in sleep-charging mode to enhance the life of the marker and a full charge should provide for a minimum autonomy of