



## Smart PRECAST CONCRETE products for smart city

Highways | Water | Housing | Telecom | Power  
| Rail | Ports | Metros | Airports



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Siddhivinayak Precast is one of the major players in Precast Concrete products. Considering the growing urbanization across India and the world, the pressure on civic infrastructure will only be mounting by the day. The need of the hour is to ensure sustainable & quality public utility structures and systems.

Siddhivinayak has developed smart & green precast concrete products in response to the growing and varying needs.

## Precast Concrete - A Solid Solution

The new millennium came with new challenges in virtually all sectors that called for innovative solutions. The construction and infrastructure industry was no exception to this and the precast concrete soon emerged as the best alternative to the conventional products and processes on various counts that included quality, versatility, strength, durability, sustainability & lifetime cost.

### Advantages

Since precast is manufactured in a controlled casting environment, it is easier to control the mix, placement, and curing processes. Quality can be controlled and monitored much more easily. Weather as a factor is eliminated you can cast in any and get the same results, which allows you to perfect mixes and methods.

On site, precast can be installed immediately. There is no waiting for it to gain strength while the modularity of precast products makes installation quicker. With the ability to so tightly control the process from materials to consolidation to curing, you get extremely durable concrete.



### Faster construction

with around 75% less construction time than traditional construction, projects are not held up due to manufacturing delays.



### Durability

Precast concrete strengthens with time. Its load-carrying capacity is derived from its own structural qualities and does not rely on the strength or quality of the surrounding backfill materials.



### Rough, Tough & Long-lasting

Concrete is a very strong and durable material, which is a significant sustainable attribute. It will not rust, rot or burn and has a service life in excess of 100 years.



### Reduced Site Impact

Because precast concrete components are modular and standardized, they are installed faster, resulting in reduced construction time and energy usage, less noise and fewer emissions from on-site equipment.







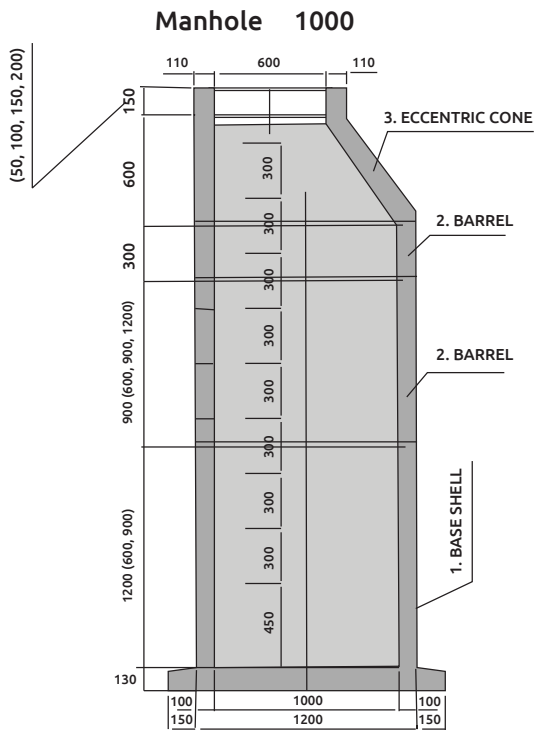
# Benefit of Precast Concrete Manholes over HDPE and Fibre Glass

Precast concrete manholes sit tight without tie-downs. With a specific gravity of 2.40 and a superior frictional resistance, they resist buoyant forces better than other manhole materials such as fiberglass with a specific gravity of 1.86 and HDPE whose specific gravity is 0.97.

These alternative materials require the use of tie downs, ultimately increasing project costs and installation headaches. Thus, precast concrete is the clear winner over other materials for manholes.

As per the certification by American concrete pipe association, precast products are sustainable with strength to work till 500 ft deep (underground).

Manhole bases available in 1000, 1200, 1500, 1800 & 2400 mm diameter



# Circular Manhole System

A manhole, also called utility hole, cable chamber, maintenance hole, Inspection chamber, access chamber or confined space, is the top opening to an underground utility hamber used to house an access point for making connections or performing maintenance on underground and buried public utility and other services including sewers, telephone, electricity, storm drains and gas.

The manhole opening is protected by a manhole cover, designed to prevent accidental or unauthorized access to the manhole.



## Specific Arrangements, Various Benefits



PVC coated cast iron steps / Rungs for easy access



Mould-finish watertight joints



Easy lifting arrangements

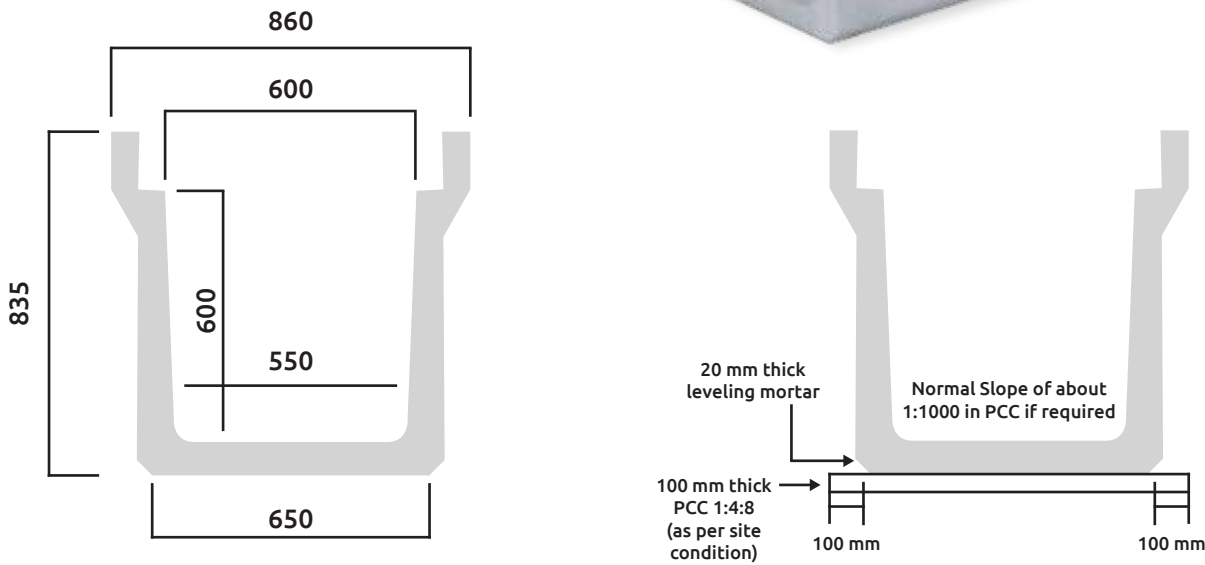
## Precast manhole explained

Frame and Cover	Eccentric Cone	Manhole Riser	Manhole Base

# U Drain

Precast U Drains offer faster channel construction without the need for wet cast concrete work. Siddhivinayak Precast manufactures a comprehensive range of U shaped drains, available in widths from 300 mm to 2000 mm, produced under strict factory-controlled conditions. These drains ensure superior quality and durability. In addition to storm water drainage, they are also used to house underground cables and waterlines in industrial settings.

- Premium quality concrete products made with advanced vibro compaction process
- Beautiful concrete products of international repute
- Fast work as ready to use and easy to use products
- Maintenance free products
- High quality concrete providing excellent durability
- Better value for money product



## Revolutionary surface drain For storm water system

Available in following sizes:

Width	Height (Inside Clear Dimensions)
1500 mm	1500 mm
1200 mm	1200 mm, 2000 mm
1000 mm	1000 mm, 1800 mm
900 mm	900 mm
750 mm	750 mm
600 mm	600 mm, 750 mm, 900 mm
450 mm	450 mm, 600 mm, 750 mm
300 mm	400 mm

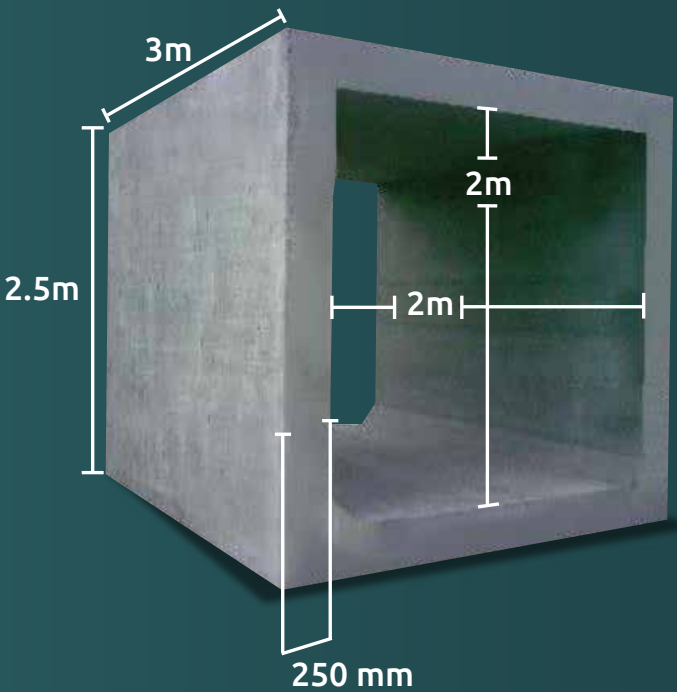
Standard 2 meter length

Available for:  
Light | Heavy Duty

CAN ALSO BE USED AS CABLE TRENCH

# Precast Box Culvert

Precast concrete box culverts are an alternative to circular concrete pipes. Box Culverts drain handles higher volume of water than pipes. Box culverts offer superior strength and easier installation than other materials. Commonly used for drainage, box culverts can be used as tunnels, for storage, or material handling. Some culverts double as bridges that can accommodate vehicular and pedestrian traffic. Other culverts are relatively small and Siddhivinayak Precast can make culverts in various shapes and sizes.



- Intakes and outtakes
- Holding tanks
- Steam tunnels
- Corridor links
- Road crossings
- Service tunnels
- Utility trenches

Sizes:

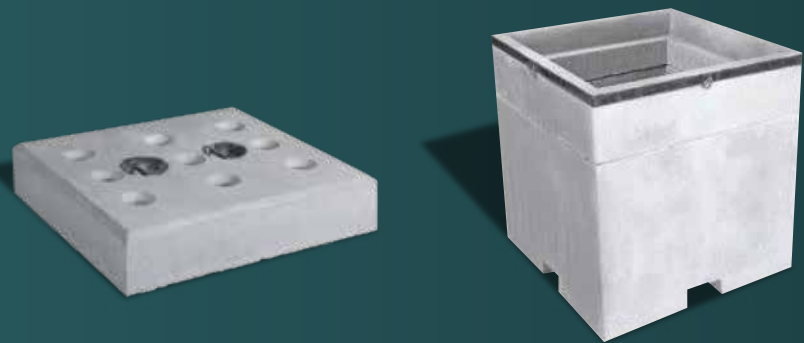
Width	Height
3000 mm	2000 mm
2000 mm	3000 mm
2000 mm	2000 mm
1000 mm	1000 mm





# Utility Manhole

Precast concrete manhole and manhole covers take few hours to install in the prepared excavation. As they are quick and easy to install, the excavations can be closed immediately. They save a lot on cost and time and deliver high durability against conventional systems. This was simply at display when the company successfully developed, manufactured and delivered customized shaped & sized inspection chambers to one of the leading telecommunication companies for laying their 4G cable network.



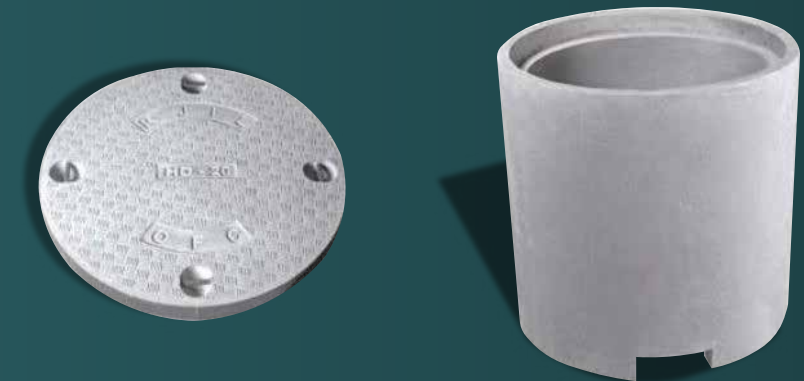
Square Sizes:

Width	Height	Length
600 mm	600 mm	1000 mm
900 mm	900 mm	1200 mm



Rectangular Sizes:

Width	Height	Length
600 mm	900 mm	1200 mm

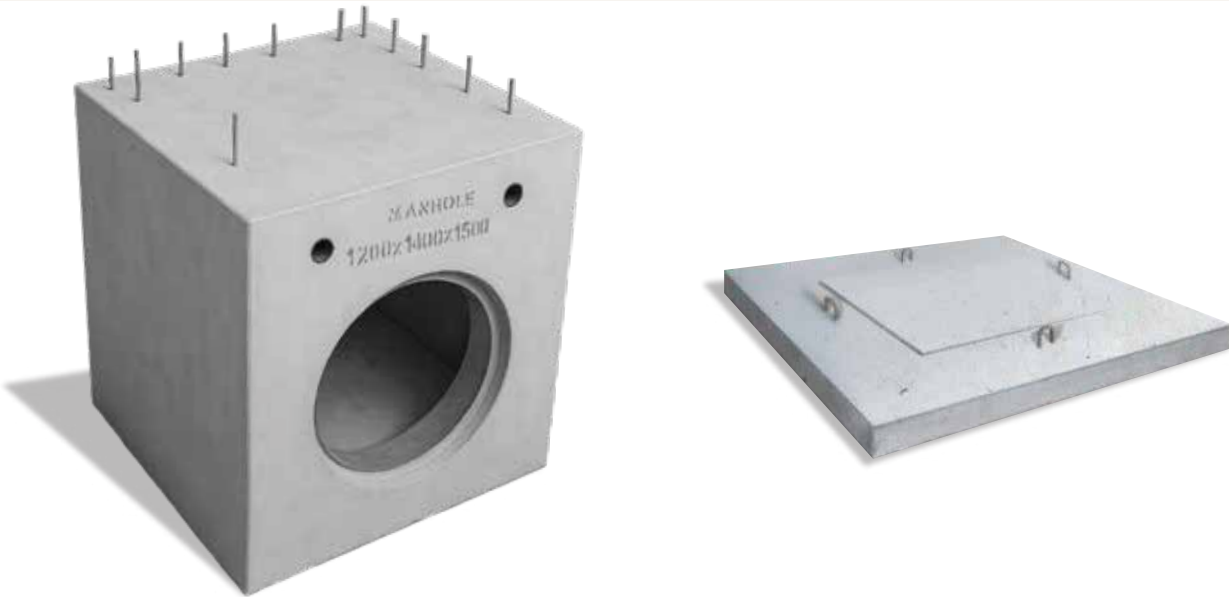


Circular Sizes:

Width	Height
900 mm	1000 mm
1200 mm	1500 mm

# Storm Water Drain Chamber

A Precast Storm Water Drain Chamber is an underground concrete structure typically fitted with a solid lid. It collects stormwater runoff and routes it through underground pipes, allowing sediment and debris to settle. It also can be used as a Inspection chamber / Junction in a pipe system to allow access.



Dimensions Outer	Dimensions Inner	Max Pipe Outer / Inlet Up-to Diameter
1140 mm x 1140 mm	900 mm x 900 mm	300 mm
1400 mm x 1200 mm	1050 mm x 850 mm	600 mm
1500 mm x 1500 mm	1150 mm x 1150 mm	700 mm
1600 mm x 1200 mm	1200 mm x 900 mm	900 mm
1150 mm x 850 mm	1400 mm x 800 mm	1000 mm

Other sizes can be customized to your requirements.

# Precast Catch Pit

A Catchpit is essentially an empty chamber with an inlet pipe and an outlet pipe set at a level above the floor of the pit. Any sediment carried by the system settles out whilst in the Catch Pit, from where it can be periodically pumped out or removed. Catchpits are a precast concrete drainage product that are recommended for use as a filter and collector in land drainage systems that do not make use of any sort of geo-membrane.

Sizes:

Width	Height	Length
300 mm	300 mm	400 mm
450 mm	450 mm	450 mm
500 mm	650 mm	600 mm
600 mm	600 mm	600 mm

Useful Product for surface water collection







**Siddhivinayak Precast is proud to be a supplier of Viaducts, Girders and Pier arms for Pune Metro project**



### **Empowering Urban Infrastructure: Siddhivinayak Precast for Pune Metro**

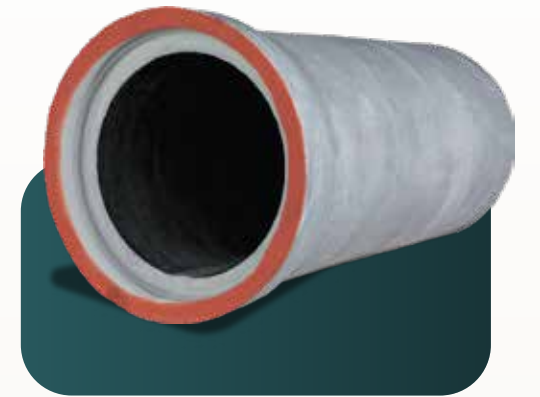
Siddhivinayak Precast's contribution to the Pune Metro project showcases our expertise in supplying high-strength precast elements, such as viaducts, pier arms, and girders. Our role in supporting large-scale infrastructure projects like the Pune Metro highlights our capabilities and commitment to quality.





## HDPE Line RCC Pipe

HDPE lining offers the sewer structure several additional advantages that are not always appreciated. Its surface is smoother than concrete, and thus a pipe with a smaller internal diameter can be used. Alternatively, the same diameter can be used at a flatter gradient. The long-term pullout strength of the lining anchors is able to cope with a ground water pressure in excess of 10m. If necessary the HDPE lining can be welded together at the joints by applying a bead of HDPE to make the lining continuous and create a water-and gas-tight joint. The abrasion resistance of the HDPE is actually greater than that of concrete. Concrete pipe with a cast in HDPE lining has all the advantages of a strong rigid pipe that keeps its shape as well as those of a plastic pipe that is inert to acid attack. It is the best pipe for large diameter gravity pipelines in almost any condition.



**Sizes:**  
NP3 & NP4 Class  
300 mm to 2000 mm



## Jacking Pipes

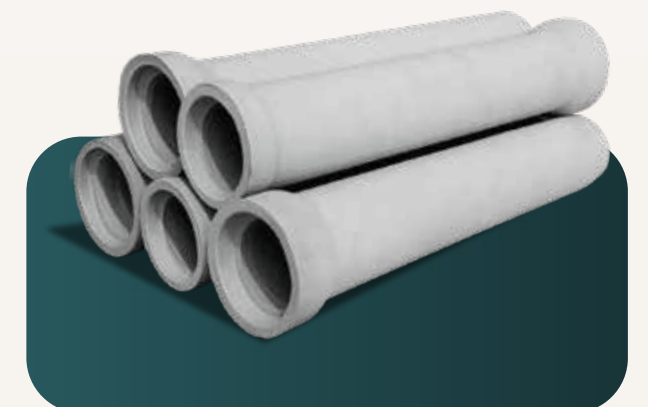
The benefits of jacking pipe are well established. By choosing pipe jacking over open-cut construction, owners can have a precisely installed pipeline with less disruption to the public and at a competitive price, with less noise and lower emissions.

**Sizes:**  
800 mm to 2000 mm

## RCC Pipes

Siddhivinayak Precasts Pipes are favored for their integrity, durability and resistance to damage, the three vital considerations of any pipeline system.

**Sizes:**  
NP3 & NP4 Class (reinforced /non-reinforced)  
300 mm to 2000 mm.







**Sizes:**

Pole Heights of 4.5/6/7.5/9/12 Meters provided with/without foundation Bolts / Nuts and DWC ducting pipes for electric cables.

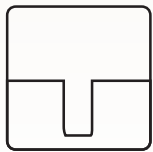
## Pole Base Foundation

### Built to save

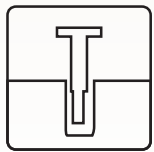
Siddhivinayak Precast has developed ready to use Pole Base Foundations that can be transported and installed easily on site.

Simple to install in three easy steps, these precast pole base foundations save directly on labor, time and cost while ensuring best quality and keeping the site clean.

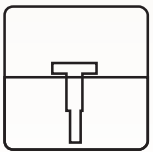
### How it works



DIG



PLACE



FIX



## Earth pit chamber

Earthing Pit Chamber are provided over earthing top to do health check as well as checking and recording earthing resistance value. In order to avoid masonry work at site, ready made Precast earth pit chamber were introduced. Being one of the pioneers in manufacturing Precast Earth Pit Chamber, we are committed to provide best quality products.



### Features

Advantages of concrete being fire resistant to the required extent.

### Sizes:

Width	Height	Length
300 mm	300 mm	500 mm
400 mm	400 mm	500 mm
600 mm	600 mm	600 mm





## Embracing Sustainability: Our Journey to Net Zero

At Siddhivinayak Precast, we're dedicated to reducing our carbon footprint and promoting sustainable practices. We believe that a greener future is not just a responsibility, but an opportunity to create a better world for generations to come.

## Embracing Sustainability: Our Journey to Net Zero

01

**Renewable Energy:** We're harnessing the power of solar energy to reduce our reliance on non-renewable sources.

02

**Eco-Friendly Materials:** We're incorporating GGBS (Ground Granulated Blast Furnace Slag) and fly ash in our construction materials, reducing waste and minimizing our carbon footprint.

03

**Water Conservation:** We've implemented water-saving measures during the curing process, minimizing water waste and optimizing resource utilization.

## Our Commitment to Net Zero

We're committed to continuously monitoring and improving our sustainability practices to achieve net-zero emissions. Our goal is to minimize our impact on the environment while delivering high-quality products and services.

## Join Us in Our Sustainability Journey

Together, we can create a greener, more sustainable future.  
Let's work towards a better tomorrow, today.

Siddhivinayak Precast: Building a sustainable future and strong nation.

## Precast Compound Wall

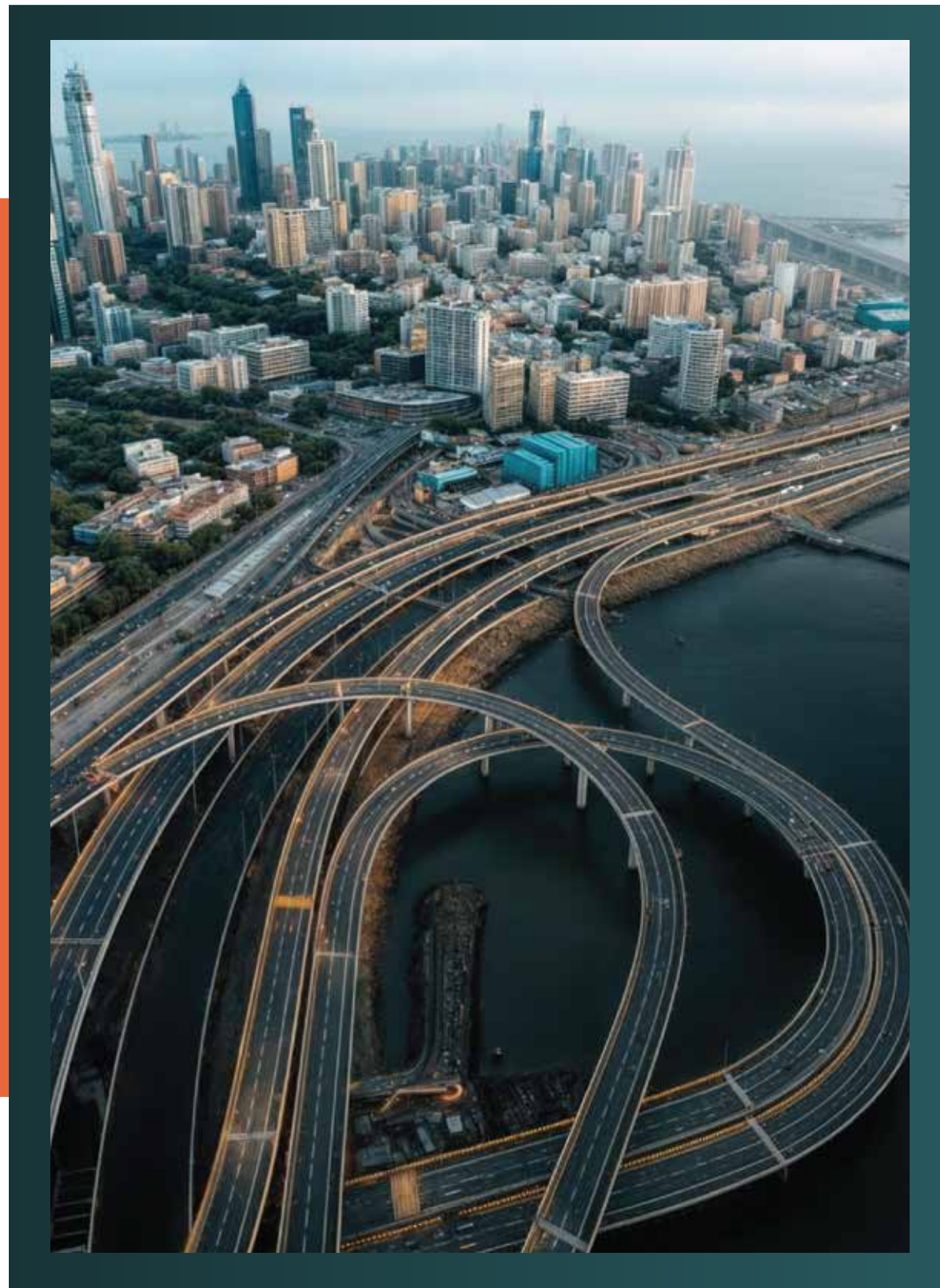
Designed for Soil bearing Capacity of 10 Ton/m<sup>2</sup> to 30 Ton/m<sup>2</sup> with column spacing for 3 mtr to 6 mtr and height of 1.8 mtr, 2.4 mtr, 3.0 mtr, 100 mm thick RCC solid panel, 150 mm thick prestressed hollow core panel.



## Features

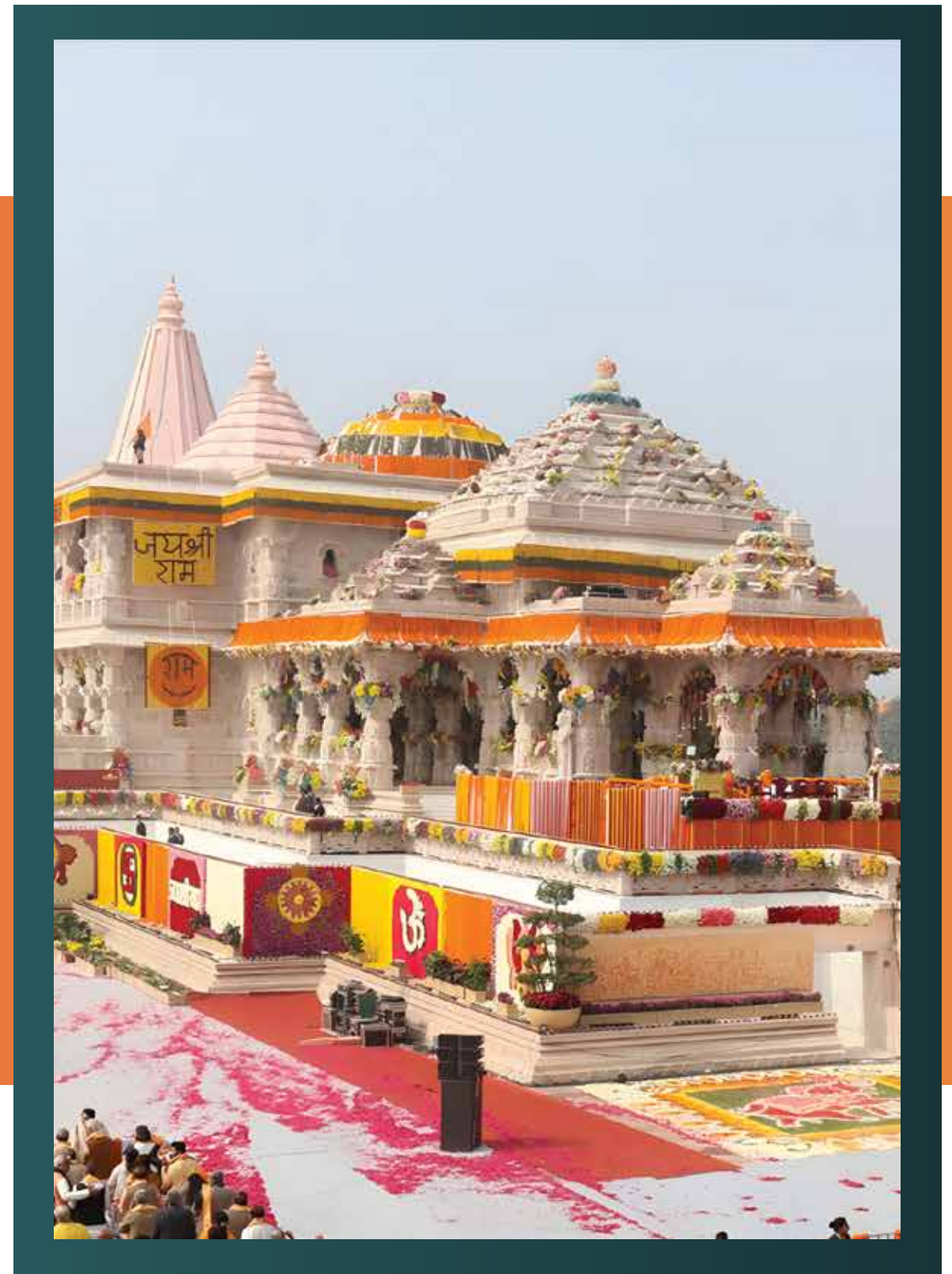
- Easy and effort free site work and installation friendly for unskilled labor also.
- Twin panel design, ensures even gap spacing between adjacent panels.
- Wall structure can be easily re-located and reused. Perfectly suitable for land expansions projects.
- Designed as per IS codes and superior in quality due to its high grade of concrete.
- Durable and long lasting due to the high grade of concrete and special materials used.





## MUMBAI COASTAL ROAD

For the Mumbai Coastal Road Project, we have supplied essential precast elements such as box culverts, U-drains, circular pipes, and catch pits, which form the backbone of an efficient and long-lasting drainage network. These components are designed to handle high volumes of stormwater, preventing waterlogging and ensuring the smooth functioning of the coastal road, even in extreme weather conditions. Our advanced precast solutions not only enhance the project's durability but also contribute to faster construction timelines, reducing on-site work and ensuring structural consistency.



## SHRI RAM MANDIR

At the Shri Ram Mandir in Ayodhya, we are honored to contribute to a project of immense cultural, spiritual and national significance. Our role goes beyond merely supplying precast materials, we are actively involved in the design and implementation of a comprehensive stormwater drainage system that ensures effective water management across the temple premises. Given the scale and importance of this sacred site, our drainage solutions are engineered to handle varying water flow conditions, preventing accumulation and ensuring the longevity of the temple's infrastructure. By integrating high quality, precision engineered precast components, we help maintain the structural integrity and accessibility of the temple grounds, even during extreme weather.





# Precast building components

## Hollow Core Slab

Hollow core slabs are a type of precast concrete slab that features hollow cores or voids within the slab. These voids can be circular, rectangular, or other shapes, and they help to reduce the weight of the slab while maintaining its structural integrity.

### Some benefits of hollow core slabs include:

- Reduced weight: The hollow cores reduce the weight of the slab, making it easier to handle and transport.
- Improved insulation: The hollow cores can provide additional insulation, reducing heat transfer and energy losses.
- Increased structural efficiency: The hollow cores can help to distribute loads more efficiently, reducing the need for additional structural support.
- Cost savings: Hollow core slabs can be more cost-effective than solid slabs, especially for larger spans or heavier loads.



## Precast Staircase

A precast concrete staircase is a prefabricated structure made from high strength concrete, manufactured in a controlled factory environment.



## Smart City Infrastructure Products



Manhole



U Drain & Cable Trench



Storm Water Chamber



Earth Pit Chamber



Box Culvert



RCC Pipe



Hollow Core  
Slab



Utility Chamber



HDPE Lined Pipes /  
Jacking Pipes



Junction Box &  
Pole Foundation