Premier Construction Specifications: Building Excellence at 1600/sq.ft

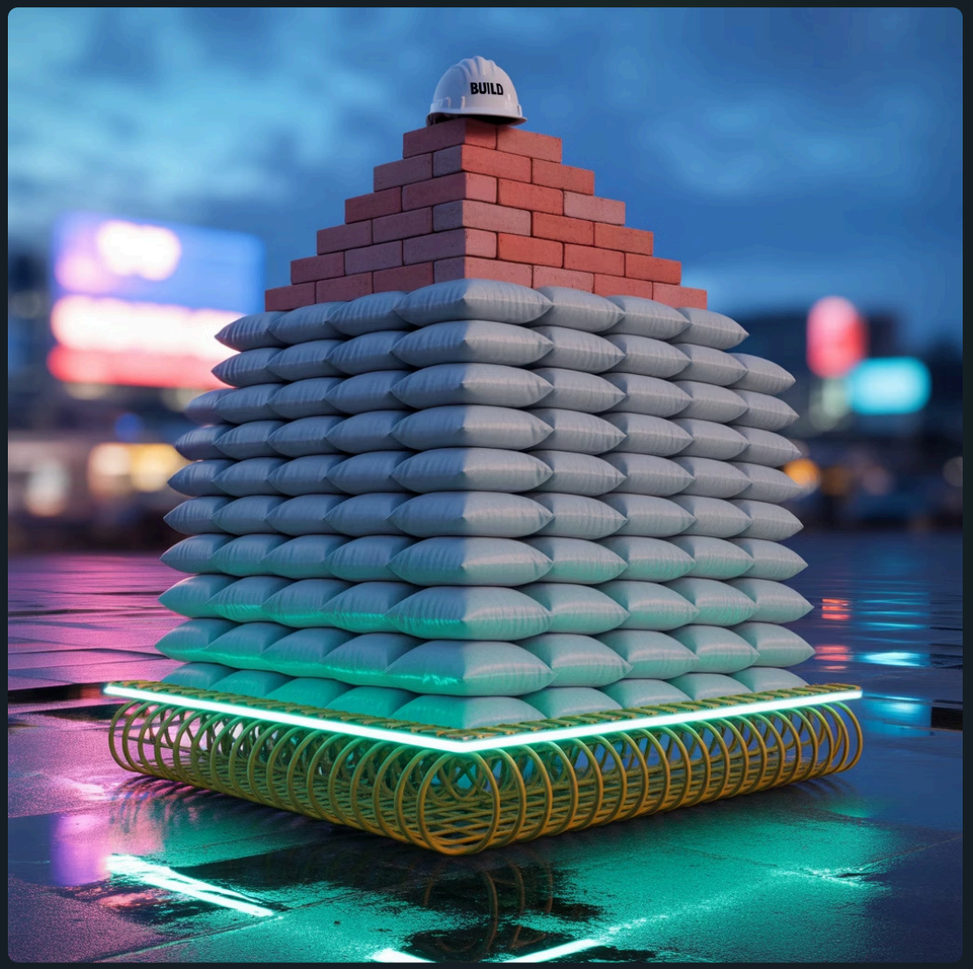
A comprehensive guide to our premium construction materials, techniques, and specifications designed to deliver exceptional quality and durability for your residential or commercial project.

Project Overview & Material Standards

Our Commitment to Quality

This document outlines our construction specifications based on a rate of $1600 per square foot. All materials selected represent industry-leading brands and products that ensure structural integrity, aesthetic appeal, and long-term durability.

Our material selection process prioritizes strength, reliability, and performance to create structures that stand the test of time while maintaining visual appeal and functionality.



Key Measurement Protocol

For accurate project costing and material calculations, the final slab area measured on-site will be considered definitive for all calculations and billing purposes.

Cement Specifications

Structural Applications

For all concreting and brickwork applications that form the structural core of your building, we exclusively use Ultratech OPC (Ordinary Portland Cement) Grade cement.

OPC grade cement offers superior compressive strength development, enhanced workability, and excellent durability for foundational elements. Its high early strength development ensures faster construction timelines without compromising structural integrity.

Finishing Applications

For all plastering and finishing works that contribute to the aesthetic appeal and surface protection, we utilize Ultratech/Dalmia PPC (Portland Pozzolana Cement) Grade cement.

PPC grade cement provides excellent workability for smooth finishes, enhanced resistance to environmental factors, and superior crack resistance. Its pozzolanic composition offers improved impermeability and reduced heat of hydration for better curing.

TMT Reinforcement Specifications

Thermo-Mechanically Treated (TMT) steel reinforcement bars form the backbone of modern reinforced concrete structures. Our specifications utilize premium TMT reinforcement to ensure structural stability and seismic resistance.

TMT Brand Selection

We exclusively use Lodha TMT and NR TMT brands, which are renowned for their high tensile strength, superior ductility, excellent weldability, and consistent quality control. These brands conform to IS:1786 standards, ensuring reliable performance across varying structural applications.

Diameter Specifications

Our reinforcement strategy employs multiple bar diameters to optimize structural performance:

- 8mm bars: For stirrups, ties, and secondary reinforcement
- 10mm bars: For slabs and light load-bearing elements
- 12mm bars: For primary reinforcement in beams and columns
- 16mm bars: For heavy load-bearing elements and foundation reinforcement

Brick Specifications

Premium Clay Brick Selection

For all masonry work, we utilize fine quality mud bricks manufactured by Star, S, and R companies. These bricks are selected for their consistent dimensions, high compressive strength, and low water absorption properties.

Technical Specifications:

- Compressive strength: Minimum 3.5 N/mm²
- Water absorption: Less than 20% by weight
- Efflorescence: Nil to slight
- Standard dimensions: 230mm × 110mm × 70mm (9" × 4.5" × 3")

Our brickwork implementation includes 10mm thick mortar joints with a cement-sand ratio of 1:6 for optimal strength and durability. All brick walls receive proper curing for 7-10 days to ensure maximum strength development and minimal shrinkage cracking.

Sand Specifications

Structural Applications: Khaperkheda Sand

For all concrete mixing and brickwork applications, we utilize Khaperkheda sand, known for its:

- Optimal grain size distribution (Zone II as per IS:383)
- Low silt and clay content (< 3%)
- Absence of organic impurities
- High compressive strength in concrete mixes

This river sand provides excellent workability and bonding properties for structural applications, ensuring proper hydration of cement and development of design strength.

Finishing Applications: Bhandara Fine Sand

For all plastering and tile work, we employ Bhandara fine sand, selected for its:

- Fine grain size (Zone III as per IS:383)
- Uniform particle distribution
- Superior surface finish characteristics
- Enhanced workability for precision applications

This fine-grade sand allows for smooth, even finishes in plastering work and proper bedding for tile installation, minimizing surface imperfections and ensuring aesthetic excellence.

Aggregate Specifications

20mm Round Aggregate Selection

For all concrete work, we utilize 20mm round aggregates that meet the following specifications:

- Uniformly graded 20mm nominal size
- Rounded shape for improved workability
- Crushing value < 30% for optimal strength
- Impact value < 30% for durability
- Water absorption < 2% by weight
- Free from deleterious materials (clay, silt, organic matter)

These aggregates create a dense concrete matrix with minimal voids, resulting in higher compressive strength, reduced segregation, and enhanced durability against weathering and abrasion.

Concrete Mix Design

Our standard concrete mix utilizes these aggregates in the following proportions:

- M20 grade: 1:1.5:3 (cement:sand:aggregate)
- M25 grade: 1:1:2 (cement:sand:aggregate)

Water-cement ratio maintained between 0.45-0.50 for optimal workability without compromising strength.

Paint Specifications

Interior Paint System

Asian Paints Acrylic/Emulsion

- Two layers of JK Wall Care putty (2mm thickness)
- One layer of Asian Paints water-based primer
- Two coats of Asian Paints Premium Emulsion
- Low VOC formulation for healthier indoor air quality
- Washable finish with excellent stain resistance

Exterior Paint System

Apex Ultima Weather Shield

- One layer of Suryacem white cement waterproofing solution
- One coat of exterior primer sealer
- Two coats of Apex Ultima Weather Shield
- UV resistant formulation to prevent color fading
- Advanced waterproofing technology

Door Specifications

Main Entry Door

The main entrance door for the drawing room will feature:

- Bajaj Security door or premium teakwood construction
- Budget allocation up to ₹25,000 (additional costs borne by owner)
- Minimum thickness of 40mm for enhanced security
- Brass/stainless steel hardware fittings
- Multi-point locking system for maximum security
- Polished/laminated finish as per owner's selection

Interior Room Doors

All bedroom and living space doors will feature:

- Chemical-treated engineered wood with veneer finish
- Solid teakwood frames (minimum 100mm × 60mm)
- Standard thickness of 35mm
- Mortise locks with lever handles
- Three brass hinges per door for smooth operation
- Polished finish matching interior decor

Utility Doors

Bathroom and tower exterior doors will include:

- Water-resistant laminated door panels
- Reinforced cement concrete frames
- PVC edge banding for moisture protection
- Standard thickness of 30mm
- Stainless steel hardware for corrosion resistance
- Tower door with additional weatherproofing

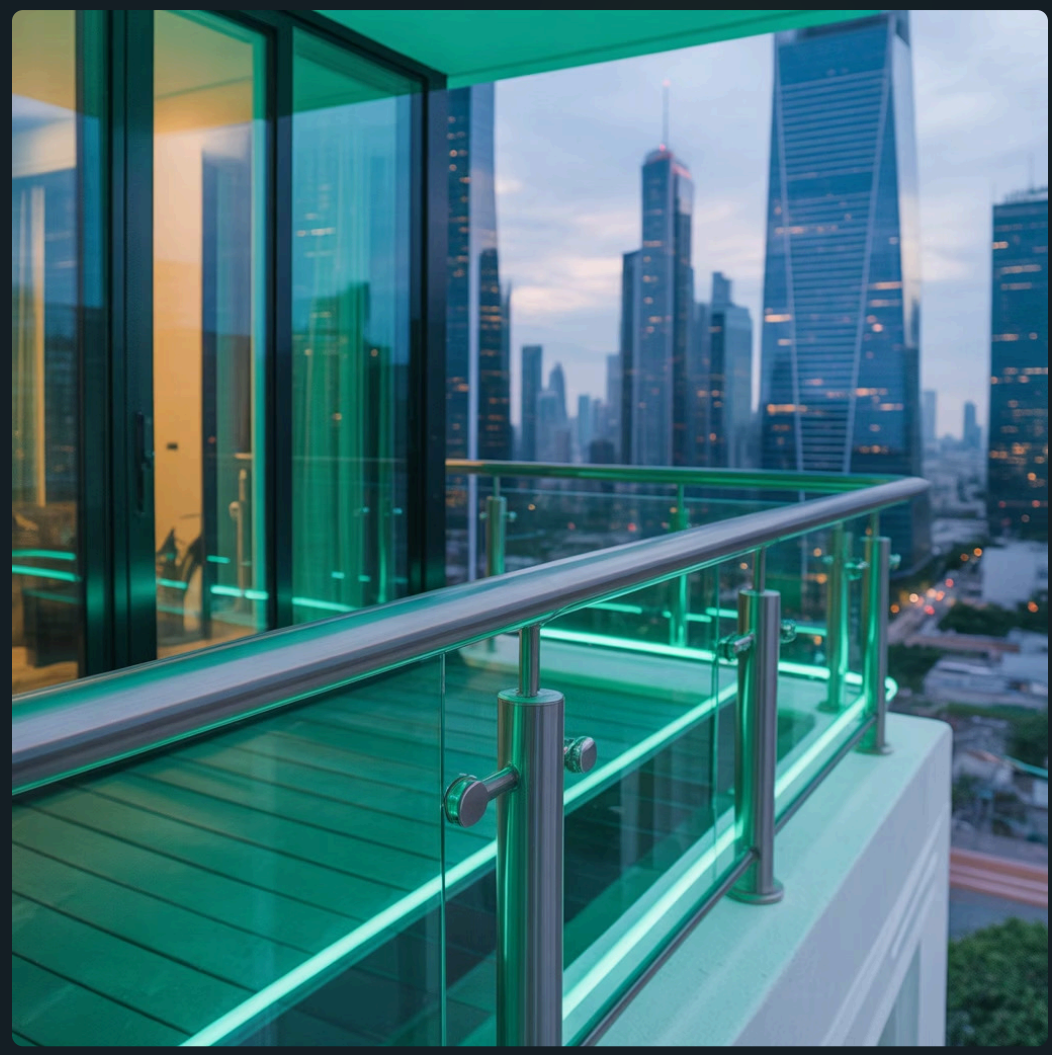
Railing & Window Specifications

Premium Railing Systems

For all staircase and balcony applications, we install SS quality railings with the following specifications:

- 18-gauge galvanized steel construction
- Rounded profile for safety and aesthetic appeal
- Height of 900mm from finished floor level
- Maximum vertical gap of 100mm between balusters
- Anchored securely to structural elements
- Polished finish for corrosion resistance
- Load-tested to withstand lateral force of 1.5 kN/m

These railings provide both safety and visual appeal while maintaining long-term durability in various environmental conditions.



Window Systems

All windows feature:

- MS quality iron grills for security
- 2-channel aluminum frame with sliding mechanism
- 4mm thick clear glass panels
- Black or silver finish options
- Weatherproof sealing to prevent water infiltration
- Locking mechanisms for security

Tile Specifications: Flooring

1

Living Areas & Bedrooms

All primary living spaces will feature premium digital tiles or double-charged vitrified tiles with the following specifications:

- Large format size: 24" × 48" (600mm × 1200mm)
- Budget allocation: ₹40-50 per square foot
- Rectified edges for minimal grout lines
- Matt or glossy finish as per owner's preference
- Stain-resistant and easy to clean surface
- Scratch resistance rating: PEI Class 4
- Anti-skid rating: R9 minimum

2

Staircase Flooring

All staircase treads and risers will feature:

- Rough-textured tiles for slip resistance
- Budget allocation: ₹35 per step set
- Alternative option: Granite tops for premium appearance
- Anti-skid rating: R11 minimum for enhanced safety
- Bullnose edge profile for tread finishing
- Contrast strips at tread edges for visibility
- Coordinated with overall interior color scheme

Tile Specifications: Wall Applications

Bathroom Wall Tiles

All bathroom walls will be tiled to a height of 7 feet with the following specifications:

- Printed ceramic tiles with decorative patterns
- Budget allocation: ₹35 per square foot
- Standard size: 300mm × 600mm
- Coordinated floor tiles with rough texture for slip resistance
- Water absorption < 10% for moisture resistance
- Mold and mildew resistant properties
- Easy-to-clean glazed surface

Kitchen Wall Tiles

Kitchen backsplash areas will feature:

- Printed ceramic tiles with decorative patterns
- Budget allocation: ₹35 per square foot
- Installation height: 2 feet above kitchen platform
- Stain and heat resistant properties
- Easy-to-clean glazed surface

Exterior & Elevation Tile Specifications

For exterior applications, we utilize specialized tiles designed to withstand environmental factors while providing aesthetic appeal. Our elevation specifications feature:

3D Printed Elevation Tiles

The building exterior will feature specialized 3D printed elevation tiles with the following characteristics:

- Budget allocation: ₹35 per square foot
- Textured 3D surface for visual depth and shadow effects
- Fade-resistant coloration for long-term aesthetic appeal
- Low water absorption rate (< 0.5%) for frost resistance
- UV-resistant properties to prevent color degradation
- High thermal insulation value to reduce heat transfer
- Specialized installation with weatherproof adhesives and grouting

Performance Characteristics

Our elevation tile specifications ensure:

- Weather resistance in all seasonal conditions
- Minimal maintenance requirements
- Enhanced thermal performance of the building envelope
- Architectural distinctiveness through texture and pattern
- Resistant to environmental pollutants and staining
- Estimated service life of 25+ years without significant degradation

Kitchen Specifications

Custom Modular Kitchen Installation

We provide a comprehensive 12-foot modular kitchen setup with premium features designed for functionality, durability, and aesthetic appeal.

Technical Specifications:

- **Counter Space:** 12-foot linear countertop with 28-inch width
- **Counter Material:** Premium granite slab (18-20mm thickness)
- **Cabinet Structure:** BWR (Boiling Water Resistant) plywood with laminate finish
- **Lower Cabinets:** 30-inch height with soft-close drawer systems
- **Upper Cabinets:** 3-foot height with hydraulic hinges
- **Hardware:** Stainless steel handles and premium hinges
- **Sink:** Single bowl stainless steel sink with drain board
- **Fixtures:** Deck-mounted single-lever kitchen faucet

All cabinet interiors feature moisture-resistant treatments and anti-termite protection. The modular design allows for customization of internal compartments based on storage requirements.

POP (Plaster of Paris) Ceiling Work

Hall & Living Areas

For primary living spaces, we implement premium 2-layer POP ceiling designs with the following features:

- Double-layer design with decorative cornices
- Cove lighting provisions for ambient illumination
- Thickness range: 10-12mm for structural integrity
- Seamless integration with wall surfaces
- Provisions for chandelier mounting at designated points
- Custom design elements based on interior theme

Bedrooms & Secondary Spaces

For bedroom ceilings, we implement refined single-layer POP designs with the following features:

- Single-layer design with elegant perimeter treatment
- Simplified cornices for visual appeal
- Thickness range: 6-8mm for lightweight application
- Provisions for fan mounting with reinforcement
- Smooth finish for consistent light reflection
- Minimal design elements for contemporary appeal

Note: POP ceiling work is limited to hall and bedroom areas. Utility spaces such as bathrooms, kitchen, and storage areas will receive standard cement plastering with smooth finish and paint application.

Plumbing Specifications

Pipe Systems & Materials

Our comprehensive plumbing system utilizes industry-leading materials for reliability and longevity:

- **Bathroom Supply Lines:** CPVC Plasto pipes (Schedule 40)
- **Main Water Supply:** PVC Plasto pipes (Class 3, 10kg/cm²)
- **Drainage System:** UPVC Plasto pipes (Schedule 40)
- **Hot Water Lines:** CPVC pipes rated for 82°C temperature
- **Concealed Installations:** All pipeline systems embedded within wall cavities with proper testing before closing
- **Pressure Testing:** All supply lines tested at 1.5× working pressure

Fixtures & Fittings

Quality fixtures ensure reliable daily operation and water efficiency:

- **Faucets & Taps:** Cera Company premium range
- **Sanitary Ware:** Aquatop/Hindustan Company products
- **Water Closets:** Dual-flush systems for water conservation
- **Shower Systems:** Diverter valve with overhead and handheld options
- **Bathroom Accessories:** Coordinated towel rails, tissue holders, and soap dishes
- **Water-Saving Features:** Flow regulators in all fixtures

Electrical Specifications

Premium Electrical System

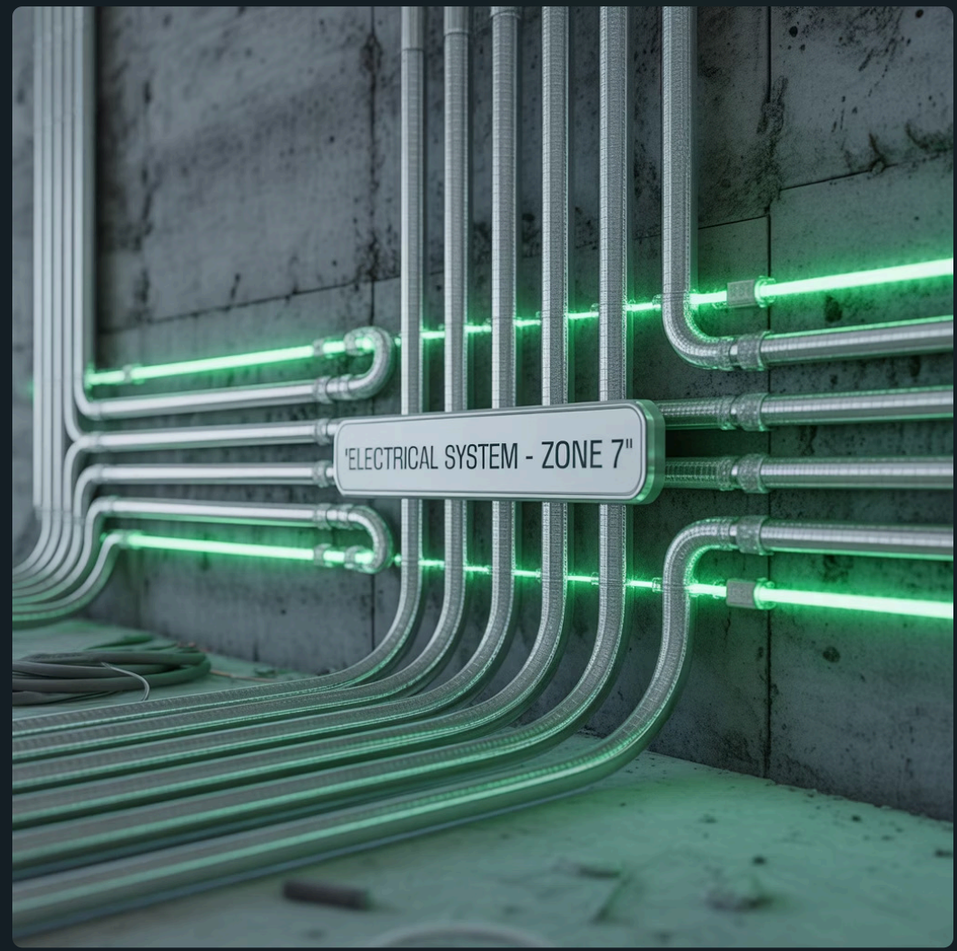
Our electrical installation features premium components and comprehensive safety measures:

Wiring System:

- Polycab FRLS (Fire Resistant Low Smoke) copper wires
- Concealed PVC conduit piping for all electrical runs
- Color-coded wiring system for easy identification
- Separate circuits for high-load appliances
- Dedicated earthing system with copper earth wire
- Circuit breakers for each room zone

Wire Gauge Specifications:

- Lighting circuits: 1.5 sq mm copper wire
- Power outlets: 2.5 sq mm copper wire
- AC points: 4.0 sq mm copper wire
- Main supply: 6.0 sq mm copper wire



Switches & Accessories:

- Indo-Asian modular switches and faceplates
- Weatherproof outlets for exterior locations
- RCCB/ELCB protection for safety
- MCB distribution board with proper labeling
- TV and telephone outlets in designated areas
- Provision for internet cabling throughout

Important Client Responsibilities

1

Electrical Meter Provision

The client is responsible for arranging and providing the electrical meter connection before construction commences. This includes:

- Applying for new connection with local electricity board
- Completing all documentation and fee payments
- Securing necessary permits for installation
- Coordinating with authorities for meter placement

Early arrangement prevents construction delays and enables testing of electrical systems during the building process.

2

Water Supply Arrangement

The client must ensure consistent water supply throughout the construction period for:

- Concrete mixing and curing
- Masonry work and plastering
- Testing of plumbing systems
- General construction requirements

This may involve temporary connection, borewell arrangement, or water tanker delivery, depending on site conditions and local availability.

Design Selections & Structural Considerations

Design & Aesthetic Choices

All design elements and color schemes must be selected by the property owner, including:

- Paint colors for interior and exterior surfaces
- Tile patterns and layouts for all areas
- Door designs and finishing options
- POP ceiling design variations
- Window frame colors (black or silver)
- Kitchen cabinet finishes and countertop selection
- Bathroom fixture styles and placement

Our design team will provide consultation and recommendations, but final selections remain the owner's prerogative to ensure satisfaction with the finished space.

Structural Engineering Requirements

The following elements are subject to structural engineering specifications:

- Plinth construction methodology and dimensions
- Compound wall specifications and reinforcement
- Foundation depth and design based on soil conditions
- Beam and column placements and dimensions
- Slab thickness and reinforcement pattern
- Seismic zone considerations for structural stability
- Load-bearing wall requirements

Final rates for these elements will be determined based on the structural drawings and engineer's recommendations to ensure building safety and compliance with local building codes.

Multi-Story Construction Cost Implications

For multi-story buildings, additional cost factors must be considered to account for increased complexity, material transportation, and structural requirements.

5%

Cost Increase Per Floor

Starting from the second floor, all construction costs will increase by 5% per floor level. This progressive increase accounts for:

- Additional labor for vertical material transportation
- Increased scaffolding and safety requirements
- Enhanced structural reinforcement needs
- Greater complexity of plumbing and electrical systems
- Extended equipment rental periods

2X

Labor Requirement Factor

Upper floors typically require approximately twice the labor hours compared to ground floor construction due to:

- Material hoisting and vertical transportation
- More complex coordination between trades
- Additional safety protocols and equipment
- Reduced efficiency with height increase
- Weather exposure considerations

10-15%

Material Wastage Increase

Upper floor construction typically experiences 10-15% higher material wastage due to:

- Vertical transportation damage
- Greater cutting and fitting requirements
- More complex architectural interfaces
- Environmental exposure during construction
- Increased handling and interim storage