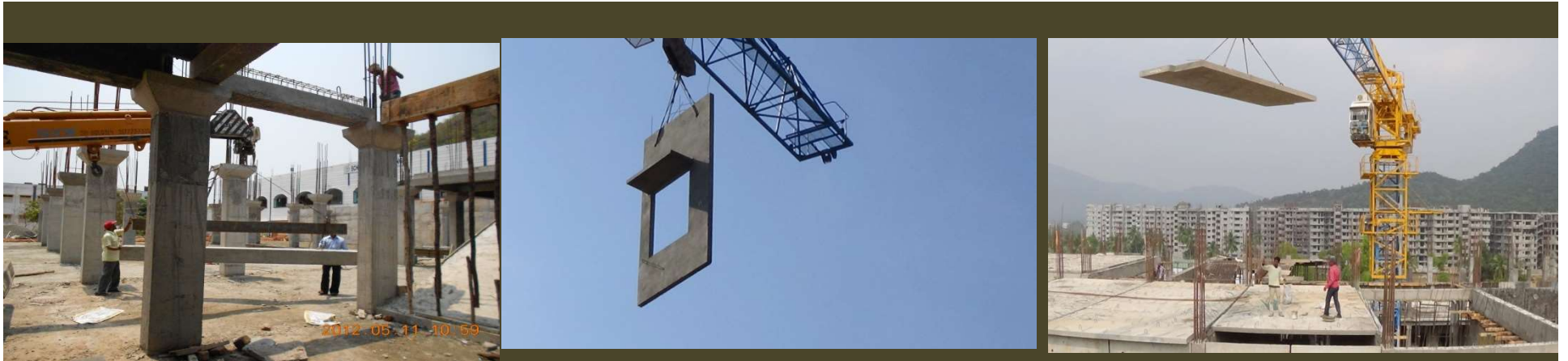
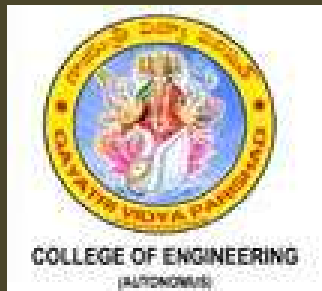




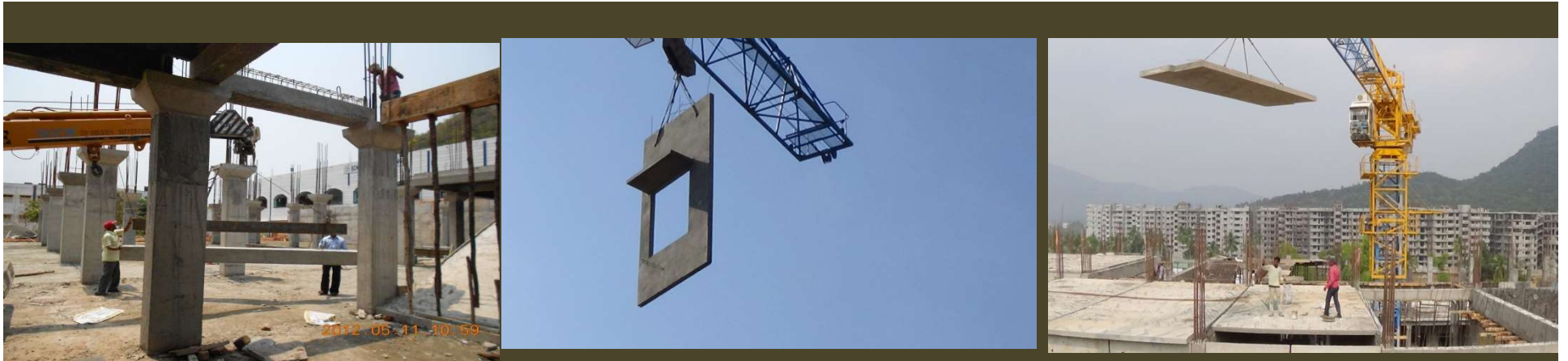
“Precast Construction” in Building Industry Case studies @ Vizag



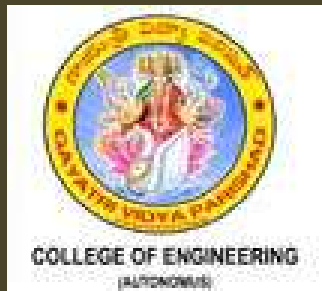
Prof. P. Veerabhadra Rao
Dean Infrastructure Planning &
Development
Gayatri Vidya Parishad college of
Engineering (A)
Visakhapatnam

19th Jan.'18

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Precision Engineering with
Passion & Speed of CONstruction
is PEPSCON



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Presentation Contents

- Building Components
- Construction Options/Systems
- Manufacturing Process
- Joints and Connections
- Lifting & erection
- Case studies

- Building Components



Construction Options Matrix

Conventional

Element	Option -1	Option -2	Option -3	Option -4	Option -5	Option -6
Column	In situ	In situ	In situ	Precast	Precast	Not Applicable
Beam	In situ	Precast	Precast	Precast	Precast	
Wall	In situ [Brick Wall]	In situ [Brick Wall]	Precast	In situ [Brick Wall]	Precast [NLB]	Precast [LB]
Slab	In situ	Precast	Precast	Precast	Precast	Precast

NLB – Non Load Bearing , LB – Load Bearing

CASE STUDY- 01

**Project :- GVP Technical campus,
visakhapatnam**

Year of Construction :- 2012

Total Area of Construction :- 12000 sq.m

No. of floors :- G+2

Construction Option Adopted



Element	Option -1	Option -2	Option – 3	Option -4	Option - 5	Option - 6
Column	In situ	In situ	Insitu	Precast	Precast	
Beam	In situ	Precast	Precast	Precast	Precast	
Wall	In situ [Brick Wall]	In situ [Brick Wall]	Precast	In situ [Brick Wall]	Precast [NLB]	Precast [LB]
Slab	Insitu	Precast	Precast	Precast	Precast	Precast

NLB – Non Load Bearing , LB – Load Bearing

Components Manufacturing.. A view



Photographic View of Rushikonda College



CASE STUDY- 02

Project :- Hospital, Visakhapatnam

Year of Construction :- 2012

Total Area of Construction :- 1680 sq.m

No. of floors :- G+1

Construction Option Adopted



Element	Option -1	Option -2	Option – 3	Option -4	Option - 5	Option - 6
Column	In situ	In situ	Structural Steel	Precast	Precast	Not Applicable
Beam	In situ	Precast	Structural Steel	Precast	Precast	
Wall	In situ [Brick Wall]	In situ [Brick Wall]	Precast	In situ [Brick Wall]	Precast [NLB]	Precast [LB]
Slab	Insitu	Precast	Precast	Precast	Precast	Precast

NLB – Non Load Bearing , LB – Load Bearing



Photographic View of GVP Hospital



Manufacturing of Wall Panels

Finished Product

- *Slabs*
- *Wall Panels*



Photographic View of GVP Hospital



CASE STUDY- 03

Project :- GVP Medical College, Visakhapatnam

Year of Construction :- 2014

Total Area of Construction :- 12,000 sq.m

No. of floors :- G+4

Ground & First Floors :- Conventional

Second, Third & Fourth Floors :- Precast

Construction Option Adopted



Element	Option -1	Option -2	Option – 3	Option -4	Option - 5	Option - 6
Column	In situ	In situ	In situ	Precast	Precast	Not Applicable
Beam	In situ	Precast	Precast	Precast	Precast	
Wall	In situ [Brick Wall]	In situ [Brick Wall]	Precast	In situ [Brick Wall]	Precast [NLB]	Precast [LB]
Slab	Insitu	Precast	Precast	Precast	Precast	Precast



CASE STUDY- 04

Project :- GVP Degree Campus Visakhapatnam

Year of Construction :- 2017....

Total Area of Construction :- 8000 sq.m

No. of floors :- Basement+ 4 floors

Retaining wall :- Precast

Beams, slabs & walls :- Precast

Construction Option Adopted



Element	Option -1	Option -2	Option – 3	Option -4	Option - 5	Option - 6
Column	In situ	In situ	In situ	Precast	Precast	Not Applicable
Beam	In situ	Precast	Precast	Precast	Precast	
Wall	In situ [Brick Wall]	In situ [Brick Wall]	Precast	In situ [Brick Wall]	Precast [NLB]	Precast [LB]
Slab	Insitu	Precast	Precast	Precast	Precast	Precast
Retaining Wall			Precast			

Basement Floor



Ground Floor



CASE STUDY- 05

Demonstration Building for EWS quarters

Total Area of Construction :- 80 sq.m

No. of floors :- G+1

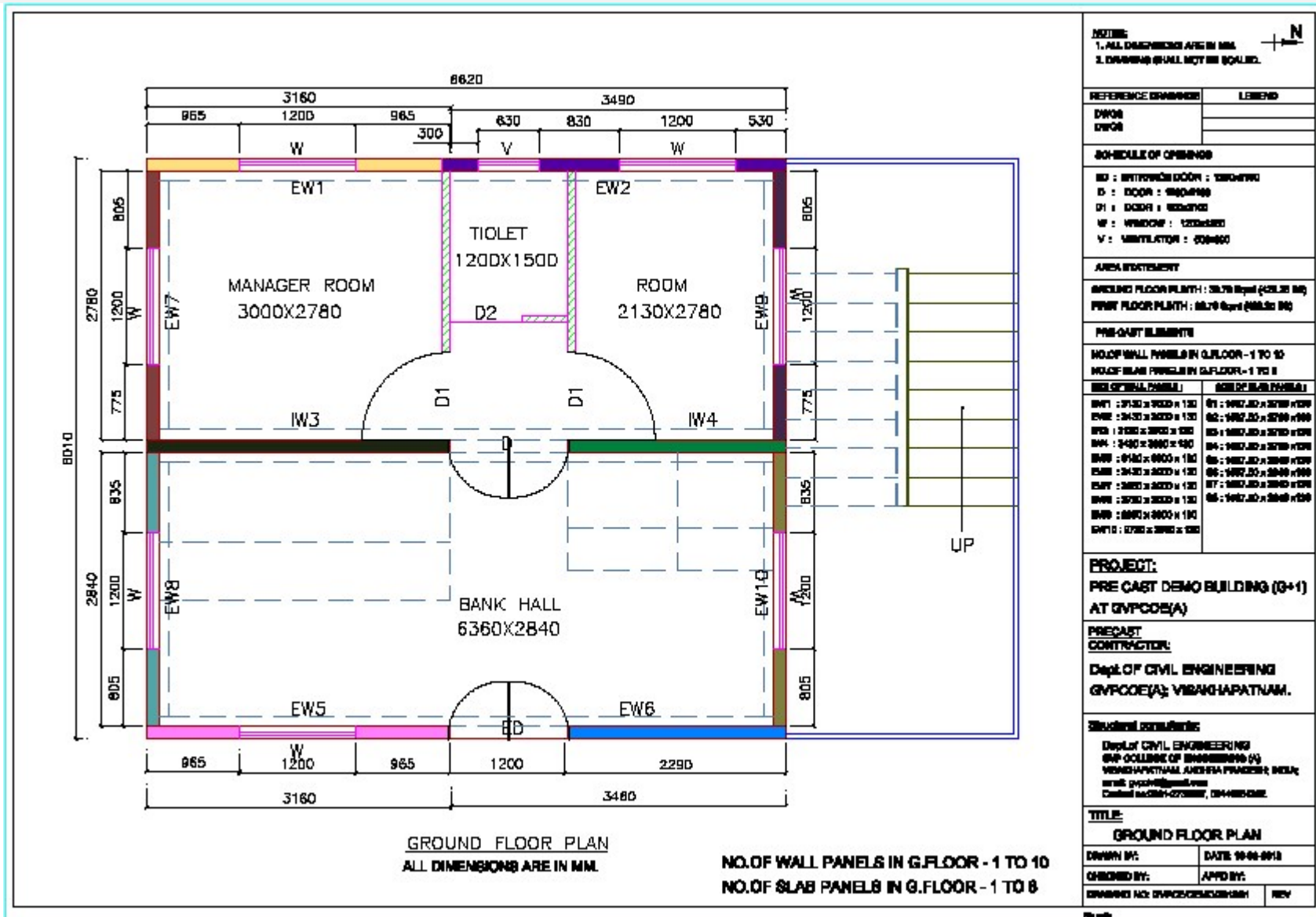
Construction Option Adopted



Element	Option -1	Option -2	Option – 3	Option -4	Option - 5	Option - 6
Column	In situ	In situ	Insitu	Precast	Precast	Not Applicable
Beam	In situ	Precast	Precast	Precast	Precast	
Wall	In situ [Brick Wall]	In situ [Brick Wall]	Precast	In situ [Brick Wall]	Precast [NLB]	Precast [LB]
Slab	Insitu	Precast	Precast	Precast	Precast	Precast

NLB – Non Load Bearing , LB – Load Bearing

Demo Building – Floor Plan



Handling / Shifting of Precast Elements



Loading on the Truck

Shifting of Precast Elements



Foundation Work











PLANNING- QUALITY- SAFETY

Developed detailed Project Execution Plan in MS-Project with Resource allocation

Project Quality Assurance :-

Stage wise Inspection during Manufacturing Process

Pre Dispatch Inspection

Quality Inspection while in Erection

Material Quality

Safety :-

Adopted best Safety Practices in Building Construction Process

AND ...

..... BEYOND

Scaling social impact through

TOILET READY

*India inspired
swachh Bharat Abhiyaan
(Campaign Clean India)*

19th Jan.'18

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Community Toilets at Visakhapatnam Port Trust under CSR activity

BIO-DIGESTERS



Precast Under-Ground Water tanks



Precast RCC Compound Wall



Precast RCC Security Cabins



A Presentation By Centre of Excellence in Precast Technology

Thank You



Department of Civil Engineering
GVP College of Engineering
Visakhapatnam

19th Jan.'18

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