

Proposal Presentation



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Building Overview



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|---------------------|---|
| Name: | 2B + G + M + 7 Development At Mansoura |
| Location: | Al Mansoura Area (Doha, Qatar) |
| Function: | Office & Retail |
| Size: | 106,000 GSF |
| Stories: | 9 Stories Above & 2 Stories Below |
| Construction Dates: | 4/13 – 4/15 |
| Total Project Cost: | \$7M |

General Overview

- Site Area: Congested
- Phasing of Construction: floor by floor (starting with the basement)
- Delivery method: Design-Bid-Build (Lump Sum Payment Method)
- Sole Contractor; no subs included
- Structure: Cast in Place Concrete (Exterior & Interior walls)



Analysis 1: Precast vs. Cast in Place Concrete



Problem:

- ◆ Costly Process
- ◆ Time Consuming
- ◆ Congestion to site (Concrete Trucks)

Research Opportunity:

- ◆ Cost/Benefit Analysis
- ◆ Schedule Reduction
- ◆ Management of Installation & Framing

Mechanical Breadth:

- Mechanical Installation
- Heating & Cooling Loads
- Energy Efficiency

Structural Breadth:

- Structural analysis
- Foundation analysis



Picture taken from:
<http://www.sptimes.com>



Picture taken from:
<http://www.wallpaperpersonweb.com/>

Analysis 2: Implementation of SIPS



Problem:

- ◆ Congested Site
- ◆ Issues with coordination of excavation
- ◆ Typical floors (Floors 1-7)



Research Opportunity:

- ◆ Analysis of crew productivity, and quality of work
- ◆ Schedule Impact
- ◆ Cost Impacts to construction

Analysis 3: LEED Certification



Minimum LEED Certified

- ◆ Potential for improvement in sustainability
- ◆ Overall quality and energy efficiency will improve
- ◆ Better reputation for owner

Research Opportunity:

- ◆ Cost Impacts
- ◆ Schedule Impacts
- ◆ Impacts on Sustainability



Picture taken from:

<http://www.greentribune.com/>

Analysis 4: Field Labor Management & Alteration

Problem:

- ◆ Intense heat of summer months (Over 122 ° F)
- ◆ Construction pause during day (enforced by Ministry of Labor)
- ◆ Delay in Schedule a possibility

Research Opportunity:

- ◆ Re-evaluate/re-consider schedule of events
- ◆ Cost Impacts
- ◆ Increased Labor Force
- ◆ Working Overtime



Picture taken from:

<http://www.nydailynews.com/>

QUESTIONS

