

Max Wnorowski

Slide Outline

3/30/16

- Introduction
 - Project Background
 - Analysis Overview
- Analysis 1 - Short Interval Production Schedule
 - Problem identification
 - Tasks and Duration
 - Work Zones
 - Matrix Schedule
 - Conclusion
- Analysis 3 - Alternate Scaffolding Plan
 - Problem Identification
 - Identify previous system used
 - Identify new solution
 - Show cost and schedule change
- Analysis 4 – Premanufacturing in SIPS
 - Problem Identification
 - Survey questions
 - Description of answers
 - Conclusion
- Breadths
 - Mechanical
 - Problem identification
 - Show original construction of wall system
 - Show new construction of wall system
 - Cost changes
 - Electrical
 - Problem Identification
 - Total lighting efficiency in original design
 - Total lighting efficiency new design
 - Cost changes

Hotel Building Ohio Valley Region

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- **Analysis 3: Alternate Scaffolding System**
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- **Analysis 4: Premanufacturing Using SIPS**
 - Problem Identification
 - Analysis
 - Conclusion & Recommendation
- **Breadths**
 - Mechanical and Electrical

Ohio Valley Region, U.S.A.

Final Presentation

AE Senior Thesis 2016

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Construction Option
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Hotel Building Ohio Valley Region

Introduction

Max P. Wnorowski
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Project Background	
Location	Ohio Valley Region
Contractor	Massaro Corporation
Architect	JMAC Architects
Building Type	Hotel
Project Size	79,000 SF
Number of Stories	10
Project Schedule	June 2014- August 2015
Project Cost	\$13.3 Million

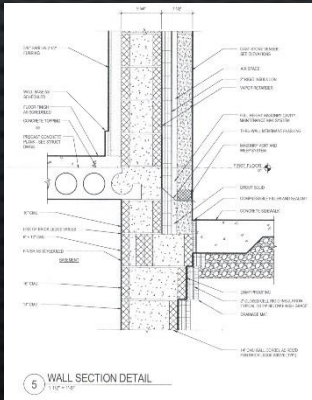


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Analysis 1- Short Interval Production Schedule

Floor/Work Zone	Duration (Days)															
	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128
2	2	2	2	12	1	1	1	1	1							
3		2	2	2	12	1	1	1	1	1						
4			2	2	2	12	1	1	1	1	1					
5				2	2	2	12	1	1	1	1	1				
6					2	2	2	12	1	1	1	1	1			
7						2	2	2	12	1	1	1	1	1		
8							2	2	2	12	1	1	1	1	1	
9								2	2	2	12	1	1	1	1	1
Labor Loading	2	4	6	18	19	20	21	22	21	19	17	5	4	3	2	1

Analysis 2- Façade redesign



Analysis 3 – Alternate Scaffolding System



Analysis 4 – Premanufacturing using SIPS



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Guest Room Count Breakdown

	2nd Floor	3rd Floor	4th Floor	5th Floor	6th Floor	7th Floor	8th Floor	9th Floor	10th Floor	TOTAL	PERCENTAGES
King	4	4	4	4	4	4	4	4	4	36	27%
King Suite	4	4	4	4	3	3	3	3	3	31	23%
Double Queen	6	6	6	6	6	6	6	6	6	54	40%
Double Queen Suite	0	0	1	1	1	1	1	1	1	7	5%
Accessible King	0	0	0	0	1	1	1	1	1	5	4%
Accessible King Suite	0	1	0	0	0	0	0	0	0	1	1%
Accessible Double Queen Suite	1	0	0	0	0	0	0	0	0	1	1%
TOTAL	15	15	15	15	15	15	15	15	15	135	100%

