Sarah Bednarcik Structural Option (BAE/MAE) Dr. Hanagan Spring 2013 Senior Thesis 27 March 2013 SteelStacks Performing Arts Center Bethlehem, Pennsylvania

Presentation Outline

Ι.	Introduction of self and SteelStacks Performing Arts Center	(1)
II.	Building Introduction	(3-4)
	a. Building Stats	
	b. Project Team	
	c. Architectural Highlights	
III.	Existing Structural System	(3)
IV.	Problem Statement/Scenario	(1)
V.	Proposed Solution and Objectives	(1)
	a. Gravity : one-way slab and beam system (RC vs PT)	
	b. Lateral: shear wall system	
	c. Impact on other systems	
VI.	Gravity Redesign	(7)
	a. Areas of concern	
	b. RC one-way vs. PT system	
	c. Benefits & Concerns	
VII.	Lateral Redesign	(3)
	a. Load Paths	
	b. MAE Component – computer model	
VIII.	Acoustic Analysis	(1)
	a. Reverberation Time	
	b. Sound Transmission	
IX.	Architectural Impact Study	(1)
	a. Creative Commons	
Х.	Comparison of Systems	(1-2)
	a. Goals met?	
XI.	Final Comments	(2)
	a. Conclusion	
	b. Acknowledgements	
XII.	Supporting Tables	(As Necessary)