Case Study: Hyatt Regency Walkway Collapse

By Matthew L, Kaz B, Thomas D _____ & Maximus B.

Hyatt Regency Hotel

March, 1976 Crown Center Redevelopment commences the project to design the Hyatt Regency Hotel

July, 1976 Gillum-Colaco, Inc. (G.C.E.) is selected as the consulting structural engineering firm for the hotel's design and construction

April, 1978 The hotel's construction begins **December, 1978** The general contractor for the Hyatt project, Eldridge Construction Company, signs a subcontract with Havens Steel Company. Havens agrees to build and erect the atrium steel.

February, 1979 After alleged communications between G.C.E. and Havens, the walkway's design is changed to a double rod support rather than a single rod support



Timeline of Events



October, 1979 A portion of the atrium roof collapses during construction and a team of engineers is called to inspect the roof

July, 1980 The Kansas City Hyatt Regency Hotel is officially open for business

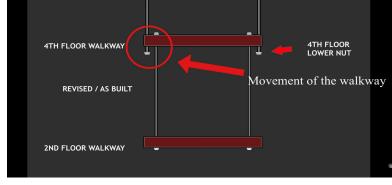
July, 1981 The connections within the metal rods collapse and the second and fourth floor walkways collapse killing 114 and injuring 200

February, 1984 A complaint is filed against G.C.E. and its owners for the disaster that was the collapse of the walkways

November, 1984 G.C.E. is charged and the owners lost their licenses

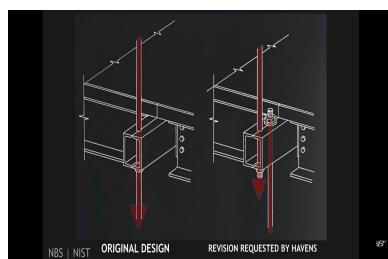
Main Problem

- The original design, a one rod system, was changed to a two-rod system by the fabricator without the consent of engineering team (at least in court). This change ultimately resulted it the bridge collapse
- However, even with the change in decision by the fabricator, the original design still would have not met the requirements of the Kansas City Build Code, still faulting the engineering team.
- The double rod design, implemented by the fabrication company Havens altered the design to a double rod system allegedly without the consent of GCE



Head on view of walkway

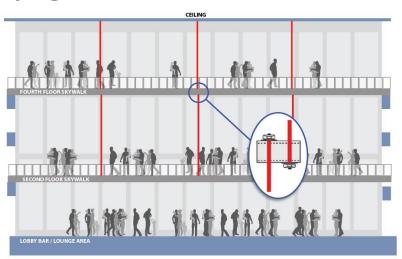
Birds eye view of walkway



Ethical Issue

- -Incompetence, **misconduct**, and miscommunication
- -The design was passed by every team on this operation, showing complete negligence of the whole operation
- -Complete lack of understanding and paying attention to valued code





Alternate Outcome

- Circumstances that led to this outcome were very extreme, however had they had a change in leadership...
 - Proper inspections and safety control
 - Better communication
 - Followed Code
- Had they restructured they could've prevented:
 - The deaths of 114 people and the injury of 216 people
 - Millions of dollars in damages
 - more than 300 lawsuits sought a cumulative total of over \$9 billion in today's value



Works Cited

- Hyatt Regency Walkway Collapse Engineering
- Root Cause Analysis of the Hyatt
 Regency Disaster Thinkreliability
- Understanding Hyatt Regency Walk Interesting Engineering

