

# ENGR 125CS

Building on Ground Zero Video

Name: \_\_\_\_\_

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1. What is the *engineering term* that describes the structural failure caused by Timothy McVeigh's terrorist attack on the Murrah Building in Oklahoma City (April 19, 1995)?
2. What are some of the reasons that the World Trade Center towers did not suffer the same rapid structural failure as the Murrah Building?
3. What structural element of the World Trade Center (WTC) buildings connected the exterior columns to the interior core columns?
4. Why do building codes require fireproofing for the structural steel of a skyscraper?
5. Early theories were that a failure between the exterior columns and the truss connections caused the WTC towers' collapse. What is the revised explanation according to the N.I.S.T. investigation?
6. Why weren't skyscrapers such as the World Trade Center designed for rapid full evacuation of all inhabitants?
7. The design of the new World Financial Center in Shanghai, China, includes *refuge floors*. Explain the purpose and intent of this feature.
8. Why do you think the numerous post-9/11 safety code recommendations by the structural engineering experts have not yet been adopted by the government?