Name: Chris Deker
Option: Structural
Faculty Consultant: TBA
Building: TC Williams High School
Location: Alexandria, VA
Date: 8/31/07
Title: Building Statistics Part 1

General Building Data

- **Building name**: TC Williams High School
- **Location and site**: 3330 King St Alexandria, Virginia
- **Building Occupant Name**: TC Williams High School
- **Occupancy or function types**: High School ~ 2,500 Students
- **Size**: 461,000 SF
- **Number of stories**: 3
- **Primary project team**
    - **Owner**: City of Alexandria, VA
    - **General Contractor and CM**: Hensel Phelps
    - **Architects**: Moseley Architects
    - **Engineers**: Moseley Architects

- **Dates of construction**: July 02 2004 – June 21 2007
- **Overall Project Cost**: $87,000,000
- **Project delivery method**: Design Build - GMP

Architecture

- **Architecture Concepts**:
  - TC Williams High School was originally designed with a very modern feel, but the owner decided a more traditional look was desired. The TC Williams High school was then redesigned with a traditional look that took various designs from other buildings in the general area. Natural light was also a major factor in the design, and 70% of the rooms have an outside view.
  - The other architecture concept the building was designed around was a Green Design. The building achieved a LEED rating of silver. Some of the main LEED designs included a 450,000 gallon Cistern, and a small green roof. The cistern will be used to provide water for the chillers, air conditioning, and toilets. The Green Roof will be used as a learning tool, as well as to collect additional rain water for the cistern.

- **Major national model codes**:
  - Virginia State Building Code
    - IBC 2000
      - ASCE 7 – ‘99
- **Zoning** : Commercial
- **Building envelope**:
  - **Roofing System**:
    - Typically 3” Roof Deck supporting 6” Rigid insulation, supported by Steel Joists.
    - The Green Roof is designed with 9” Roof Deck with 6” Rigid insulation, supported by Steel Trusses.
  - **Exterior Wall Systems** :
    - Typically Non Load Bearing 12” CMU with 4” Face Brick
    - Alternating with interior 12” CMU with 14” CMU covered by 4” Face Brick.
    - Typically all Exterior Walls are Non Load Bearing. The exterior support is Steel Braced Frame Construction.