

4.461 Building Technology III: Building Structural Systems II

Advanced Structures and Building Envelopes

Assignment 3

Due: Session 21

Visit the Stata Center on the east side of the MIT campus. The building is a veritable catalog of the use of metals in structural and nonstructural applications. Survey the building for its use of metals.

Isolate as many distinct metal assemblies as you can find. Categorize the assemblies that you find in the following ways:

1. Primary structural
2. Secondary structural
3. Nonstructural
4. Barrier assembly
5. Interior application
6. Other

Describe, briefly, the metals that are used to fulfill the demands of the assembly.

Note the following:

1. Metal type
2. Finish treatment (coatings and other surface modifications)
3. Connection detail
4. Interaction with other, nonmetallic, materials

For each assembly, give a brief description (2-3 sentences) and provide the information listed above. Each assembly should be only one paragraph in total length. Be as specific as possible.

Maximum number of distinct assembly types is ten.

If you have access to a digital camera, illustrate your descriptions with a clear image.

NOTE: The final Quiz will cover Allen Chapters 11 and 13. It is scheduled for Session 21.