Dear Mr. Cole,

Following your e-mail of September 24 (see below), a set of responses to your questions were prepared. Unfortunately, the partial shutdown of the federal government delayed our getting these responses to you. With our apologies for tardiness, here are those responses:

A) In NCSTAR 1-9, which design drawing was used to create:

- **Figure 8-21?** 1091, 9114
- **Figure 8-23?** 1091, 3004, 9114
- **Figure 8-26?** 1091, 3004, 9114
- **Figure 8-27?** E12-13
- **Figure 11-16?** E12-13, E120
- **Figure 11-19?** None
- **Figure 12-24?** 1091, 9114
- **Figure 12-25?** 1091, 9114, E12-13

B) Given that Frankel drawing #9114 shows 3/4” web/flange stiffeners installed on the girder at the 13th floor column 79 connection, why weren't the stiffeners reported in NCSTAR 1-9 and shown in the figures listed above? Was Frankel Drawing #9114 used? If not, why not?

The web stiffeners shown at the end of the girder in Frankel drawing #9114 prevent web crippling. The structural analyses of WTC 7 did not show any web crippling failures. Therefore, the web crippling plates did not need to be included in the models/analyses.

Again, we apologize for the length of time it took to get this information back to you.

Thank you for your interest in the NIST World Trade Center investigation.

Sincerely,

Michael Newman

NIST Public Affairs Office