

north of the WTC complex. Attributes of these nine videos are listed in Table 5–2, and a map indicating the locations of the cameras relative to WTC 7 is shown in Figure 5–183.

Using video analysis software, the nine video clips were placed on a common timeline by matching various events, such as collapse initiation and window breakage. The maximum estimated uncertainty in assigning relative times is 6 frames or 0.2 s. For the analyses that follow, 0 s is defined as the time when the east penthouse began to descend into WTC 7. Note that this event occurred prior to 5:20:52 p.m. The actual time will be provided below.

Table 5–2. Attributes of videos used for analysis of the collapse of WTC 7.

Camera No.	Location	Coverage	Notes
1	High on building near midtown Manhattan, slightly east of normal to the north face of WTC 7	Entire collapse sequence	News camera, trained on WTC 7 for several minutes prior.
2	High on building near mid-town Manhattan, due north of WTC 7	Entire collapse sequence	News camera, trained on WTC 7 for several minutes prior. Higher magnification than Camera 1.
3	Street level, west side of West Street, near Harrison Street	Entire collapse sequence	News camera, trained on WTC 7 for several minutes prior.
4	Street level, near the corner of West Broadway and Leonard Street	Began after descent of east penthouse	Hand-held news camera, was not operating when east penthouse descended.
5	Street level, near the corner of Franklin and Hudson Streets	Began after descent of east penthouse	Amateur recording
6	An elevated apartment to the northeast of the corner of Church and Duane Streets	Began after descent of east penthouse	Figure 5–152, Figure 5–157, and Figure 5–158 are frames from clips shot earlier from the same location.
7	Street level, near the corner of Church and Duane Streets	Began after descent of east penthouse	Provided by news organization.
8	Street level, near the corner of Greenwich and Jay Streets	Began after descent of east penthouse	News camera.
9	Street level, near the corner of Greenwich and Jay Streets	Began after descent of east penthouse	News camera

The videos were used to derive a timeline for the collapse. Note that none of the video clips provide unobstructed views of the lower floors of WTC 7.

Figure 5–184, Figure 5–185, and Figure 5–186 show frames taken from Cameras 1, 2, and 3, respectively, just prior to the time when the east penthouse began to descend into the building. The earliest frames available from the six additional video clips are shown in Figure 5–187 through Figure 5–192.