

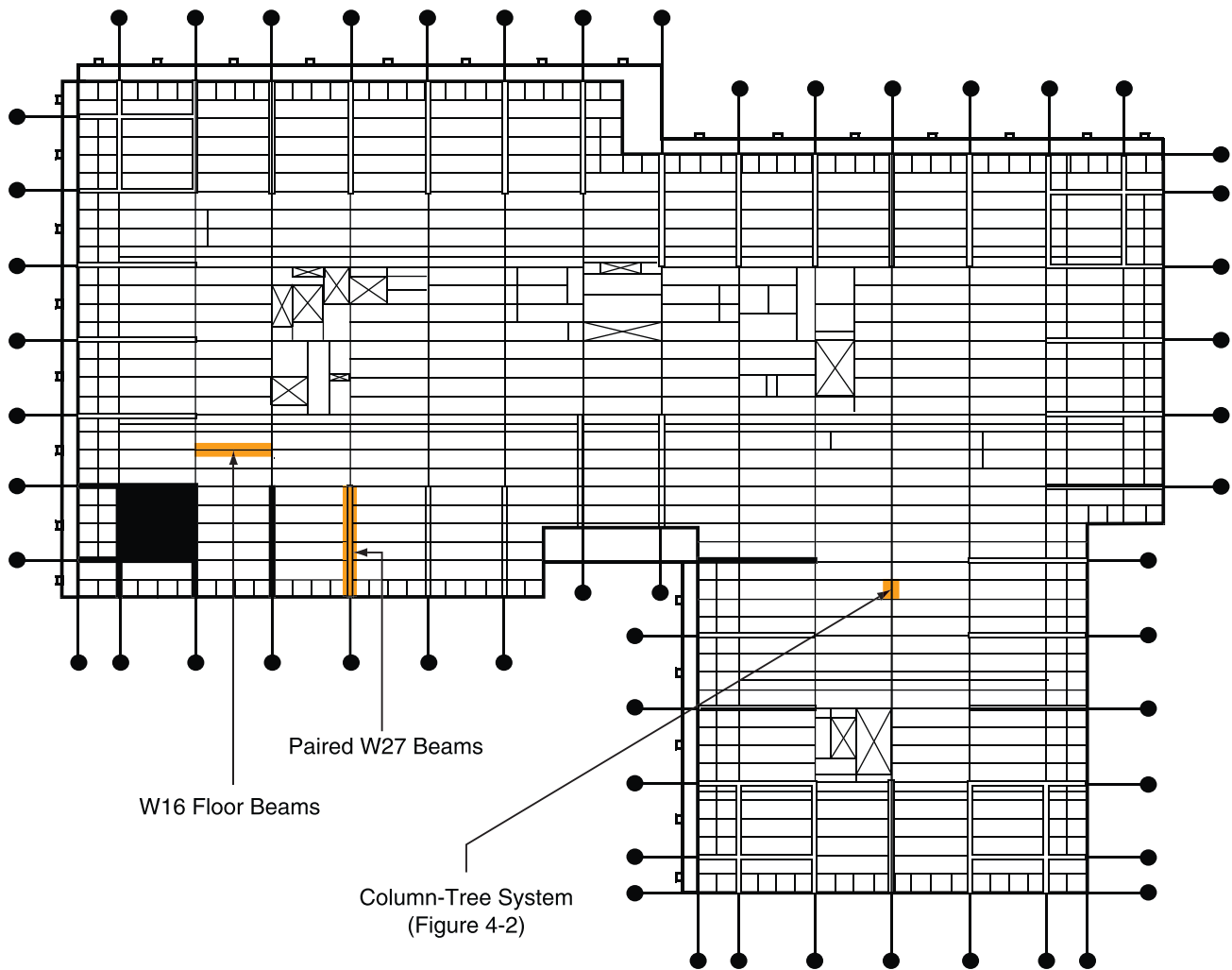


Figure 4-1 Typical floor plan for WTC 5 (Worthington, Skilling, Helle & Jackson 1968).

simply connected, with shear tabs, to the cantilevers (Figure 4-2). Floor 9 and roof level framing was conventional for steel-frame construction and did not include a column-tree system, as illustrated in Figure 4-3.

4.1.2 Fire Protection Features

WTC 5 appeared to have typical combustible contents for an office building, including furnishings, paper, etc. No evidence of any other type of fire load was noted. There appeared to be local concentrations of heavier fire loads, such as file storage, in some areas of the floors that exceeded the average combustible fire load normally associated with office occupancies. A raised sub-floor was present in a portion of the 6th floor, indicative of a computer room or electronic equipment area.

At the time of the September 11 attacks, WTC 5 was equipped with an automatic sprinkler system. The columns had the characteristics of a 3-hour fire resistance rating. The floor assembly (floor and floor beams) had the characteristics of a 2-hour fire resistance rating. Typical fire resistance ratings of roofs of this type are 1-1/2 hours. The exterior non-loadbearing walls did not appear to have a fire resistance rating.

Based on the building plans and on-site observations of WTC 5, the fire protection material for the steel members was a spray-applied mineral fiber applied directly to the steel columns, beams, and girders. Sprayed fiber is a commonly used low-density material.