The offset of the curb is dramatic, showing a shift of an entire area. This is one of the most impressive of the offsets because it visually shows evidence of movement.

While at Central Park keep an eye out for evidence of fault movement. In this parking lot, the Hayward Fault is causing linear breaks in the asphalt and concrete curbs. The rate of movement, around 5 millimeters per year in the Fremont area, is enough to visibly move structures within a few years.

Strike-Slip Fault
What causes the curb to offset, and fractures to form throughout the asphalt parking lot? At the surface, the Hayward Fault is a right lateral strike-slip fault. A strike-slip fault is a vertical or near vertical break on the Earth’s surface where the ground moves horizontally in opposite directions. If you stand on the fault and the motion moves to your right, it is called a right lateral. When an area of a fault moves suddenly it is called an “earthquake”.

Left Photo: This area has been slowly creeping over time causing the concrete curb to break, buckle and crack.

Right Photo: These breaks across the asphalt parking lot are known as “en echelon” structures. These structures are migrating fractures that have a “stepping” appearance or an array of mutually parallel fractures.