

ATTACHMENT A TO EARTHQUAKE PLAN

EARTHQUAKE INTENSITY SCALE

The Modified Mercalli Scale measures the intensity of an earthquake. The Magnitude Scale measures the amount of energy released from the earthquake. The Intensity Scale differs from the Magnitude Scale in that the effects of any one earthquake vary greatly from place to place, so there may be many Intensity values (e.g.: IV, VII) measured from one earthquake. Each earthquake, on the other hand, should have just one Magnitude. These are typical effects of earthquakes in various magnitude ranges.

The Modified Mercalli Scale		Effects	The Magnitude Scale
I	Micro	(I) Not felt except by a very few under especially favorable conditions.	< 3.0
II – III	Minor	(II) Felt only by a few persons at rest, especially on upper floors of buildings. (III) Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motorcars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.	3.0 – 3.9
IV – V	Light	(IV) Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motorcars rocked noticeably. (V) Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.	4.0 – 4.9
VI – VII	Moderate	(VI) Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight. (VII) Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.	5.0 – 5.9

The Modified Mercalli Scale		Effects	The Magnitude Scale
VIII – IX	Strong	<p>(VIII) Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.</p> <p>(IX) Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.</p>	6.0 – 6.9
X or higher	Major to Great	<p>(X) Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.</p> <p>(XI) Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly.</p> <p>(XII) Damage total. Lines of sight and level are distorted. Objects thrown into the air.</p>	7.0 and higher