The aim of the present study is to draw attention to the importance of the concrete strength obtained in-situ. For this purpose respectively Seismic Ultrasonic P wave measurements, Schmidt Hammer Test and Coring were made over the same region of the column. Before making Uniaxial Compression Test of cores, P wave measurements were made determination concrete strength of the existing building. By using P wave arrival time of the applied in the study and distance of the between P wave probs insitu and laboratory, P wave velocities were determined. Also, Schmidt hammer test was applied in close to each other 5 different points, so an average scale value was obtained. In addition, strength of the cores were determined by using Uniaxial Compressive Strength in the laboratory. P wave velocity which obtained from in-situ and laboratory correlated with concrete strength and correlation coefficient was obtained over %90. Similarly, Correlation coefficient was around %90 in relationship between Schmidt scale value and concrete strength. Also, by using empiricial relationship between concrete strength and P wave velocity from Uyanik et al. (2011), concrete strength was calculated from P wave velocity that obtained in situ and laboratory. Strength of the measured in laboratory and calculated strength are compared and the closest value result of requisite strength was observed that P wave velocity of obtained from in-situ.