WHAT IS CLAIMED IS:

1. A wafer processing method for processing a wafer by using a laser processing apparatus including pulsed laser beam applying means to apply a pulsed laser beam from said pulsed laser beam applying means to said wafer, said wafer including a substrate and a plurality of devices formed on a front side of said substrate in a plurality of separate regions defined by a plurality of crossing division lines, said wafer processing method comprising:

an alignment step of detecting said division lines of said wafer by using alignment means included in said laser processing apparatus;

a laser processed groove forming step of applying said pulsed laser beam from said pulsed laser beam applying means to said wafer along each division line after performing said alignment step, thereby forming a laser processed groove along each division line; and

a processed position measuring step of imaging an area including a beam plasma generated by applying said pulsed laser beam from said pulsed laser beam applying means to said wafer, by using imaging means included in said laser processing apparatus, while performing said laser processed groove forming step, and next measuring the positional relation between the position of said beam plasma and a preset processing position;

wherein said wafer further includes a plurality of metal patterns for testing arranged on said division lines at given intervals;

said wafer processing method further comprises a metal pattern position storing step of storing information on the intervals and positions of said metal patterns into storage means included in said laser processing apparatus before performing said alignment step; and

said positional relation is measured in said processed position measuring step at any position where said metal patterns are not formed, according to said information on the intervals and positions of said metal patterns previously stored in said metal pattern position storing step.