

## **Research about earthwork plan and design method of mountain road with consideration to environment**

### **[ Point ]**

This study has been conducted for 2 points described below.

1. Feasibility study for quantitatively recognizing the advantages that are generated by application of lightweight earth fill construction method on mountain road.
2. Study about earthquake resistance of air bubble composite earth fill.

The results of this study revealed the following.

1. In the case of constructing mountain road on slope, it was possible to effectively improve the impact on natural environment, compared to the plan that adopted the existing construction method, and to reduce the cost simultaneously, by adopting lightweight earth fill construction method and conducting road project to be earth fill main body construction method.
2. It was possible to keep sufficient earthquake resistance with air bubble composite earth fill by setting up intensity as well as countermeasure construction of the appropriate air bubble composite soil.

Keywords: maintenance of natural environment, emerged soil recycle, lightweight earth fill construction method, air bubble composite soil, earthquake resistance design