

TC250/SC7/EG 11: Characterization

Progress Report No 2 for the period April-Dec 2012

AGREED SCOPE OF WORK

The aim of this project is to provide a user friendly and consistent guidance on determining characteristic values of ground parameters adapted to chapter 2.4.5.2 in EN 1997-1.

The guidance will result in a simple model.

According to EN 1997-1, clause 2.4.5.2(4)P the selection of characteristic values for geotechnical parameters shall take account of the following:

- geological and other background information, such as data from previous projects;
- the variability of the measured property values and other relevant information, e.g. from existing knowledge;
- the extent of the field and laboratory investigation;
- the type and number of samples;
- the extent of the zone of ground governing the behavior of the geotechnical structure at the limit state being considered;
- the ability of the geotechnical structure to transfer loads from weak to strong zones in the ground.

Each sentence above shall be described in terms of practical use that clarifies the possibilities and limitations of the new model.

KEY ISSUES UNDER DISCUSSION

- The Eurocode is not giving enough information about how to select the characteristic value of a geotechnical parameter.
- We have been calculating an example by a methods reported by Hans Schneider [H. Schneider, P. Fitze Characteristic shear strength values for EC7: Guidelines based on a statistical framework, European Conference on SMGE, Sept. 2011, Athens]. The method is simple and can take care of à-prior knowledge, but there are problems about how to take care about the fact that we have different qualities in our investigations.
- On the meeting in Brussels every member country was presented how they defined the characteristic value and the state of practice about calculating the characteristic value.
- We also had a discussion about how much we should involve rock materials in our model. We decided to build a model that will take care about all type of soil materials and the rock materials that fits in the model is positive.

TC250/SC7/Evolution Groups

DECISIONS/OUTCOMES

- The definition of the characteristic value must be clarified. There is one definition in EC 0 and another one in EC 7.
- We will continue with the model described by Hans Schneider. [H. Schneider, P. Fitze Characteristic shear strength values for EC7: Guidelines based on a statistical framework, European Conference on SMGE, Sept. 2011, Athens].
- We are going to do some very simple examples from every member country, one with cohesion soil and one cohesion less soil, with just a few investigations points.
- We will also discuss how to use presumed data (tables).

MEETINGS HELD/PLANNED

Tele-meeting no.	Date held/scheduled	Notes available from webpage?
Tele-meeting 1	2012-06-11	No
Tele-meeting 2	2012-09-06	No
Face to face-meeting in Brussels	2012-10-15 – 16	Yes
Tele-meeting	2013-01-23 15.00 CET	Not held yet

ACTIVE MEMBERSHIP

Name	Position*	Country	Listed on webpage?
Lovisa Moritz	Convenor	Sweden	Yes
Giacomo Rosso	Secretary	Italy	Yes
Astri Eggen		Norway	Yes
Jana Frankovska		Slovakia	Yes
Mathew Baldwin		UK	Yes
François Baguelin		France	Yes
Hans Schneider		Switzerland	Yes

Marcos Arroyo		Spain	Yes
Volker Eitner		Luxembourg	(have not participated so far but has contacted us via e-mail)

*please indicate Convenor/Secretary

REPORT PREPARED BY:

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2012-10-31 revised 2013-01-15