Subi	iect	<b>CERN LINAC TUNNELS</b>	S - REC	DUEST FOR	<b>GEOTECHNICAL</b>	INFORMATION
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Date 26 July 2011 Job No/Ref 216967-00/EA

As discussed in the meetings on the 25<sup>th</sup> and 26<sup>th</sup> of July the following geotechnical requirements are of primary importance for the feasibility study:

- 1) A short term deformation of the invert of 0.5mm per 20m while the detector is transported from the garage to the beam line.
- 2) An assessment of the long term settlement of invert at the beam line position due to creep and consolidation.

The following data is required for an initial review of the above requirements:

- Monitoring data of long and short term deformations due to <u>loading</u> of the Molasse Rocks in similar URL sites. Of special importance are data regarding CMS platform and invert deformations due to detector mobilisation and when at the permanent position.
- Small strain stiffness test of the Molasse Rocks (e.g. borehole geophysics, Bender Element tests)
- Complete factual information of any Triaxial/Oedometer Creep and Swelling tests in the Molasse Rocks

The following data is also requested:

## **Triaxial Tests**

Details of test procedure (especially the stress path) and complete factual information for the following tests (if available)

- CIU/D<sub>(c/ext)</sub>
- $CK_0U/D_{(c/ext)}$

## **Oedometer Tests**

Details of test procedure (especially the stress path) and complete factual information for the following tests (if available)

• Consolidation tests

## **Insitu Tests**

Complete factual information for the following tests (if available)

- Pressuremeter tests
- Plate bearing tests
- Constant/Falling head permeability
- Packer tests
- Pumping tests

Note: Digital format if possible.