ILD Workshop 2011 at LAL, Paris

ILC CFS / CLIC CES Studies for the Interaction Region :

- An action was given at the Geneva Linear Collider Meeting for CFS to develop a more in-depth civil engineering study of the IR

- Linear Collider IR meeting at CERN held on 16 February 2011

-Design Brief for external design specialists

-Kick-off meeting with ARUP is today

-Next steps

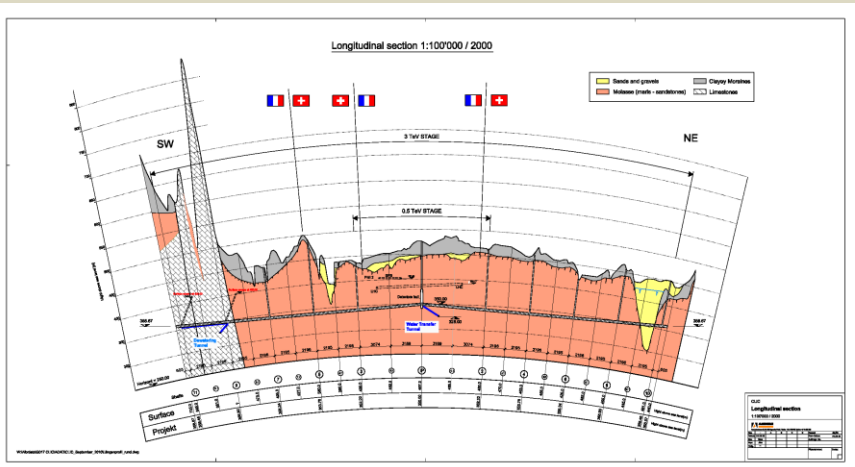
Task 1 - The design of the underground concrete platforms required to transport each of the two Linear Collider Detectors on and off the beam-line position.

- Two platforms would be required, one for each detector.
- Load of each detector, excluding platforms, of approximately 14,000tons
- Intermediate supports determined by the preferred movement system.
- Platform movement on/off the beamline to be moved over a period of the order of five hours,
- Up to 20 movements per year during machine operation.
- Accelerations of the detector during movement to be limited to 0.5g
- ~~Location of the platforms to within +/-1mm and +/-0.1 milli-rads of their target location relative to final focus quadrupole base slab.~~

ARUP's were asked to tender for 4 distinct tasks

Task 2 - A detailed study of the potential behaviour of the rock mass surrounding the experimental area during the estimated 20-year life span of the machine.

- Experience from other cavern rock related mass conditions should be taken into account e.g LHC.
- 2D and 3D effects to be assessed.
- The study should assume that the experimental area is to be built in CERN geology, in the Molasse Rock
- The long-term behaviour of the excavation



Next Steps

- ARUP's now ready to proceed with :
  - Task 1 - funded by FNAL
  - Task 2 - funded by CERN
- This study will be of benefit to both ILC and CLIC projects
- Design Criteria to be established at this meeting

CERN

Linear Collider Study Task 1 and 2

Technical Basis for Study

REP/Basis/216967/MJS/260511

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