

ILC experimental hall cryogenics

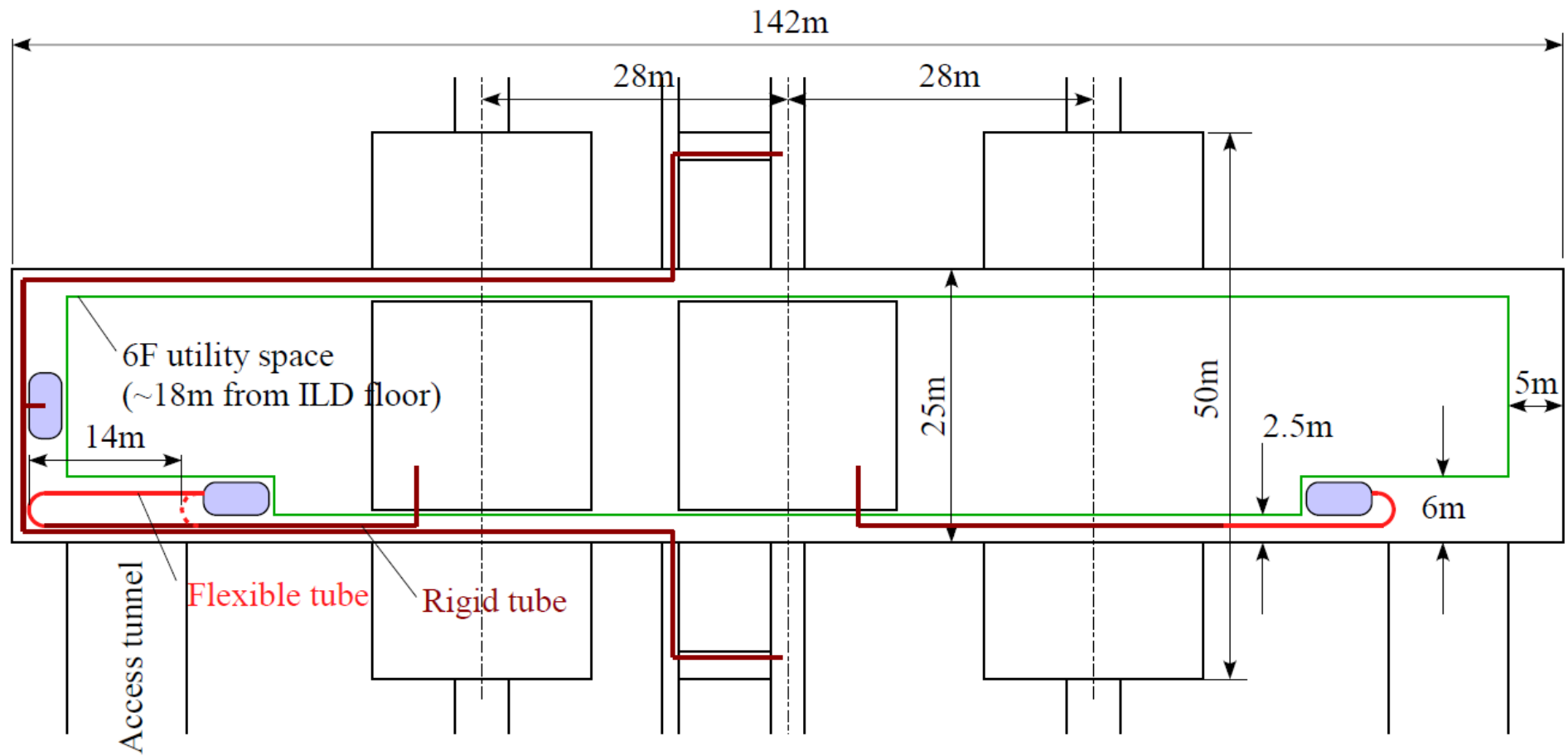
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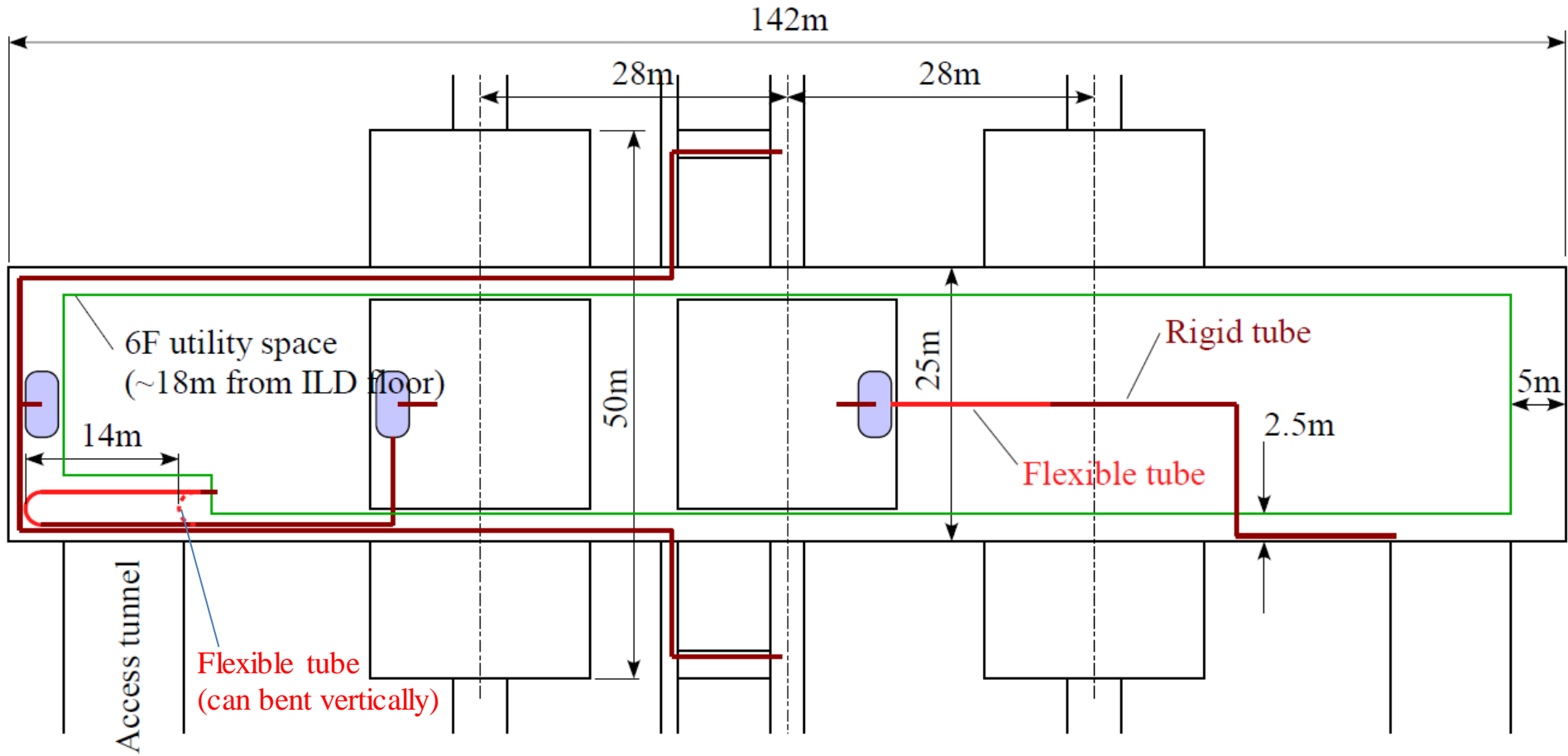
Baseline design

- 3 cold boxes; one for ILD+QD0s, one for SiD+QD0s, and one for QF1s and crab cavities
- There are two possibilities of the location of CBs for detectors
 - On the side wall
 - CB on 5F or 6F utility floor
 - 7K or 4K flexible transfer tube on 6F utility floor
 - CB and flexible transfer tube locate above the entrance of the access tunnel in order not to disturb the detector assembly
 - On the detector/platform
 - 300K high pressure flexible tube along the cable chain in the cable pit or on 6F utility floor (depends on the bending radius)
- Choice of the location of the CB is up to each detector group
- Capacity of the compressor for three CBs has to be defined before AD&I meeting

Detector CBs on the side wall



Detector CBs on the platform



Issues still to be studied

- CB on the side wall
 - Durability of the flexible transfer tube
 - Heat load
- CB on the detector
 - Bending radius of the high pressure flexible tube
 - Vibration effect