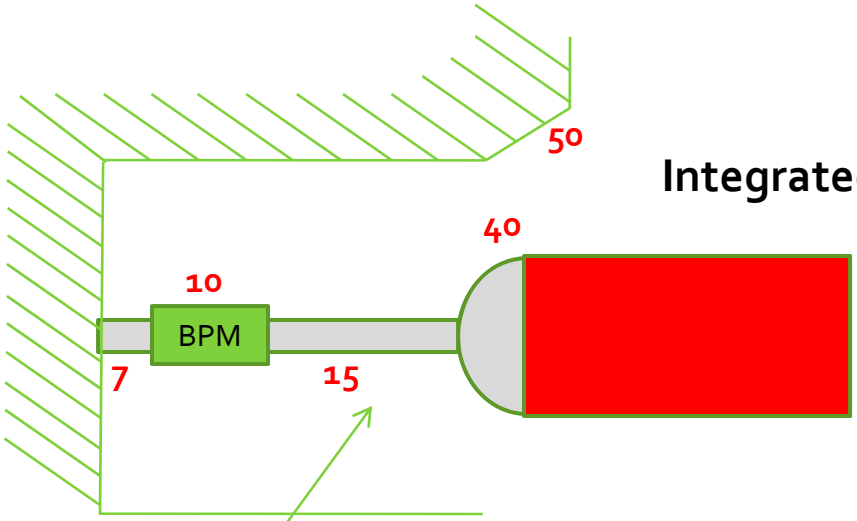
MEASUREMENTS OF CMS STRAY FIELD

Results of the Measurements in XR&L5 of the 11th Nov.

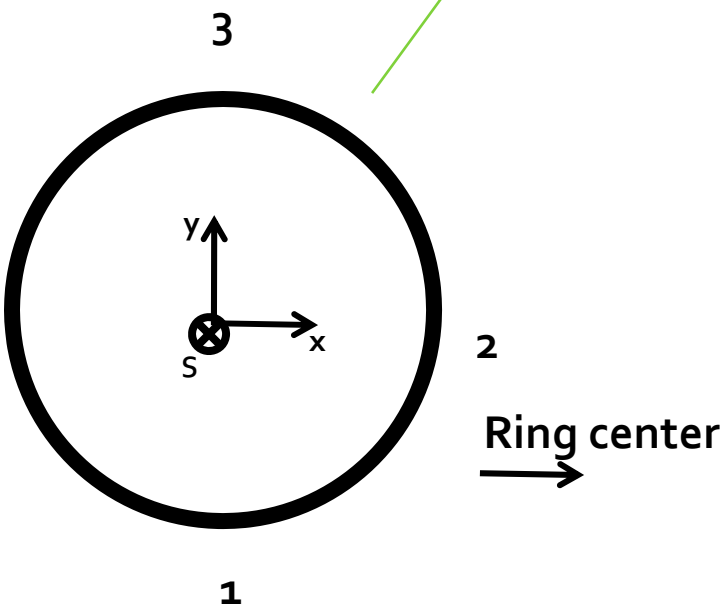
- CMS solenoid at 4T.
- Difference of of less than 5% w.r.t. measurement taken at 3.8T.
- Measurements taken into USC55 show max values of 1mT
- Measurements confirm the symmetry R&L.
- Measurement taken with a directional probe.

All values are expressed in mT

MEASUREMENTS IN XR5



Integrated magnetic field probe

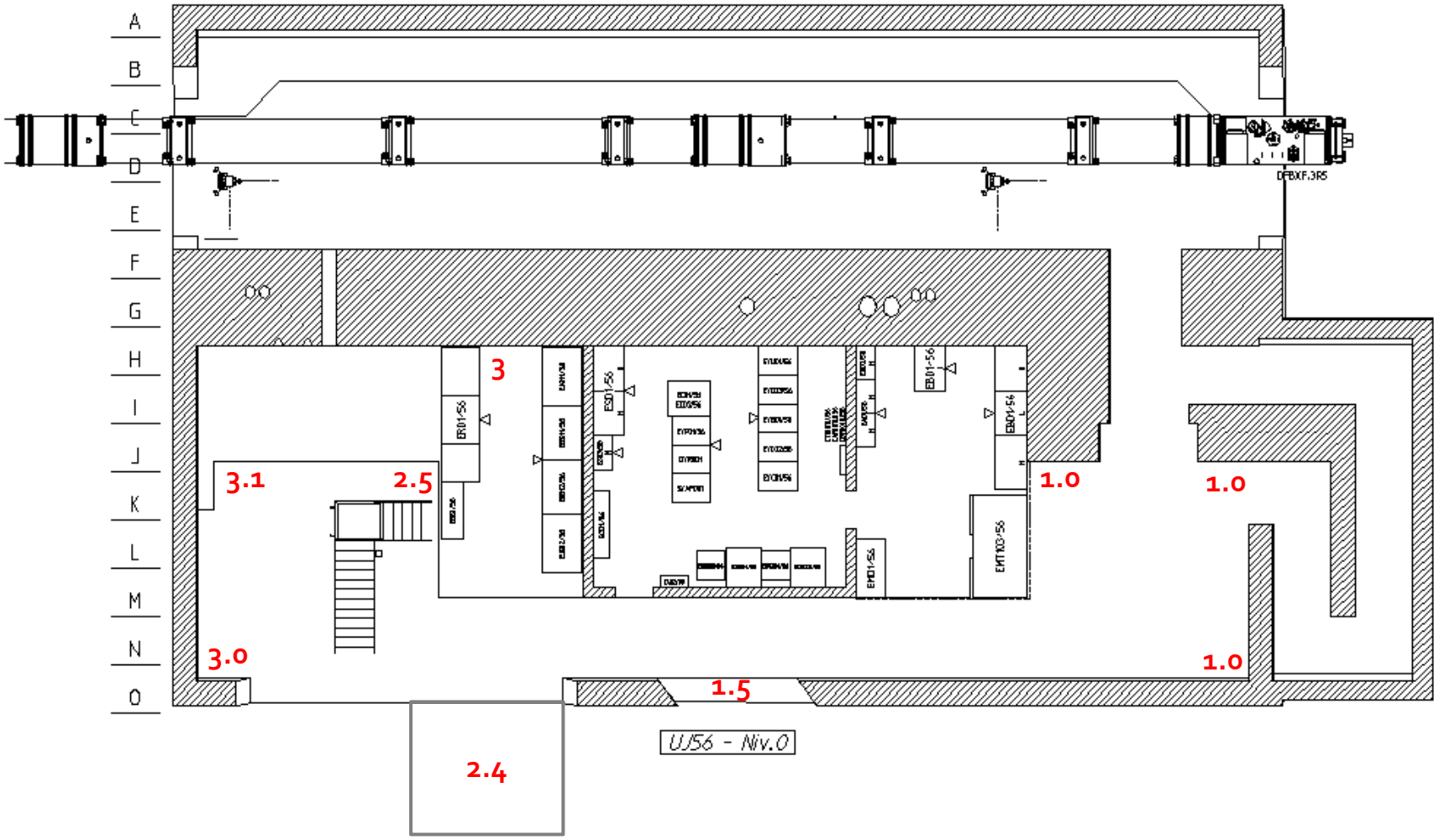


Directional magnetic field probe

	1	2	3
Bs	12.9	13.5	13.7
Bx	2.2	2.2	3.1
By	3.6	3.4	3.3

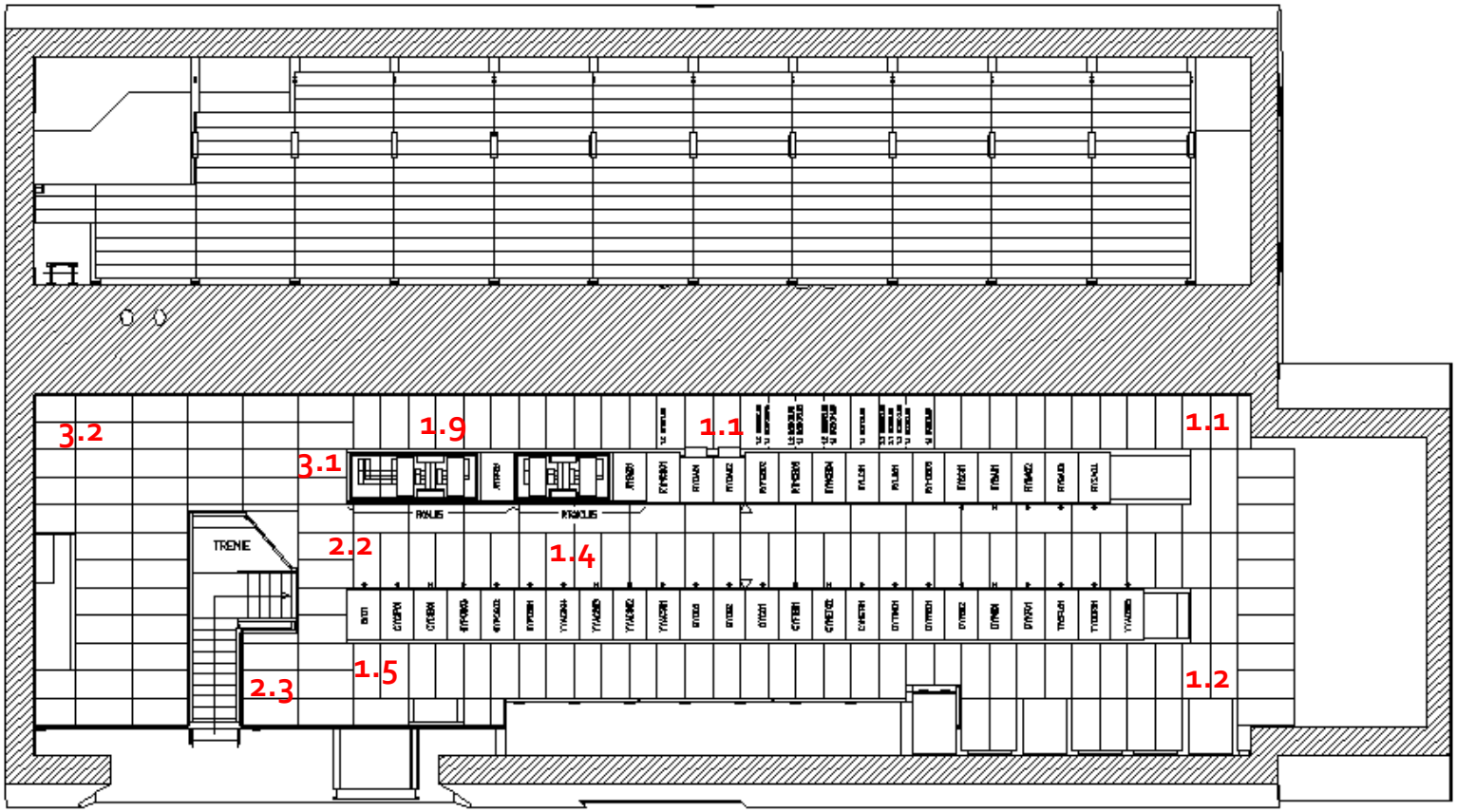
All values are expressed in mT

MEASUREMENTS IN SERVICE AREAS (UJ56)



All values are expressed in mT

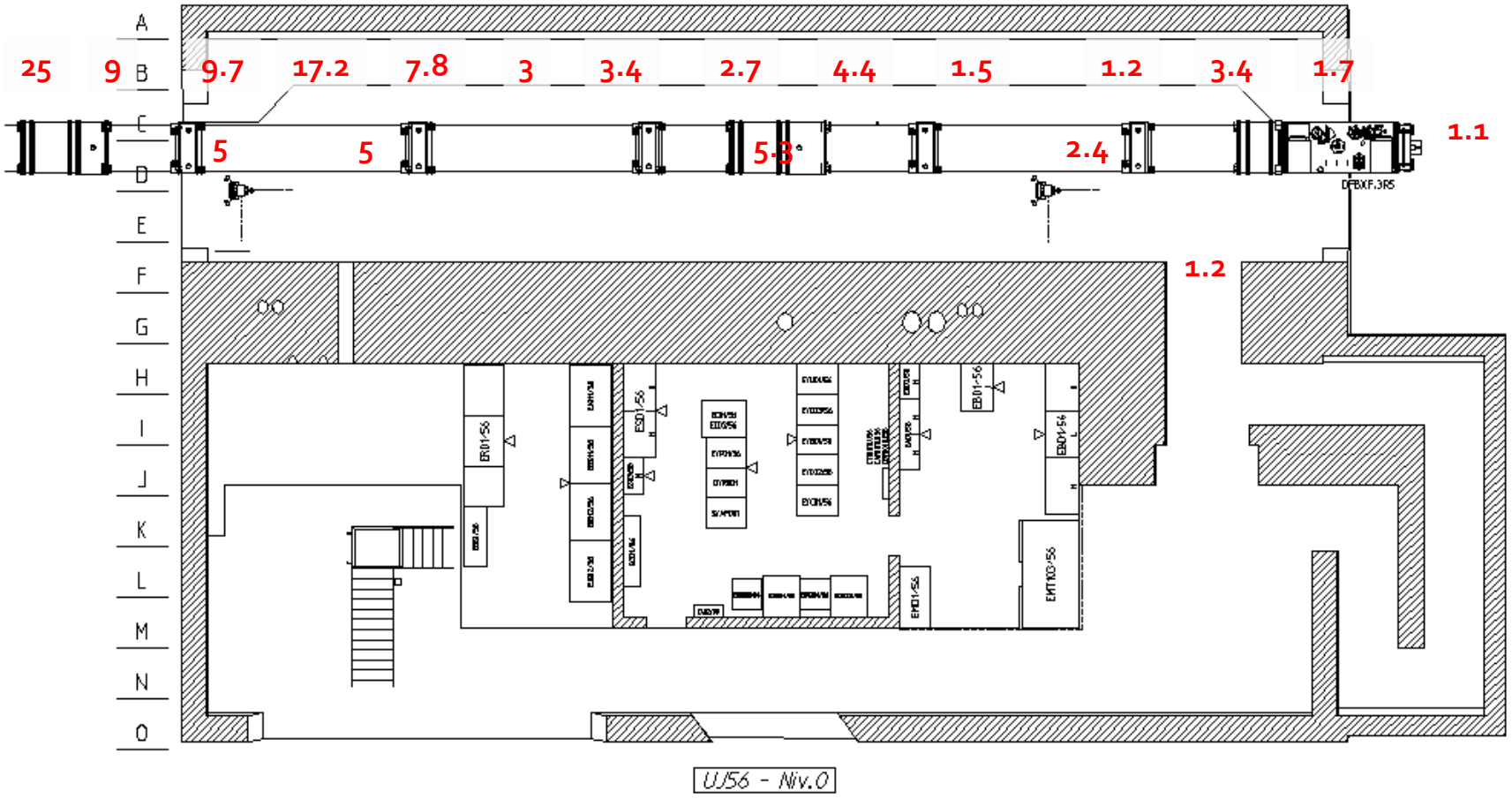
MEASUREMENTS IN SERVICE AREAS (UJ56)



All values are expressed in mT

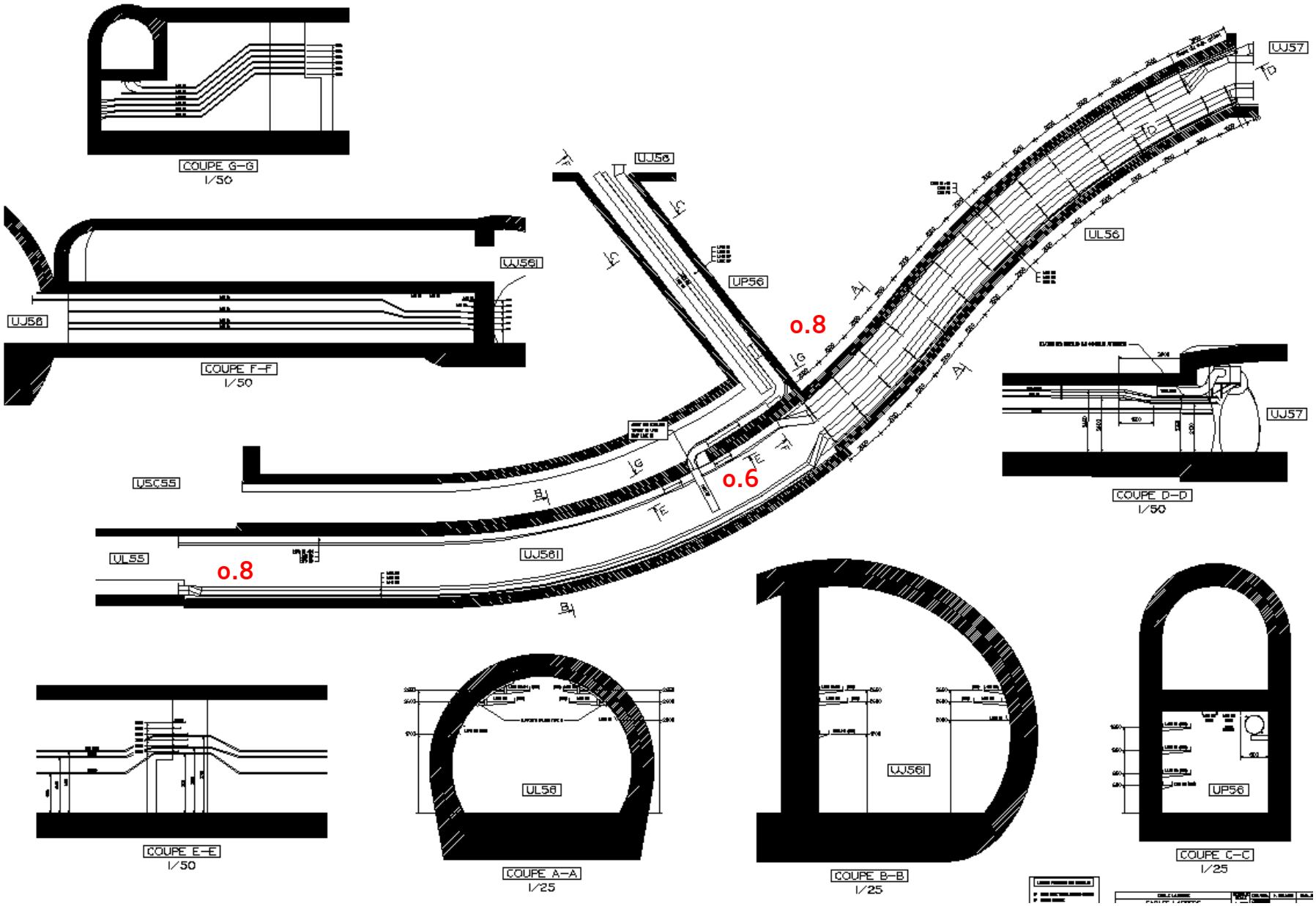
MEASUREMENTS IN XR5

Measurements done on the top of the criostats at the level of the TS-SU supports

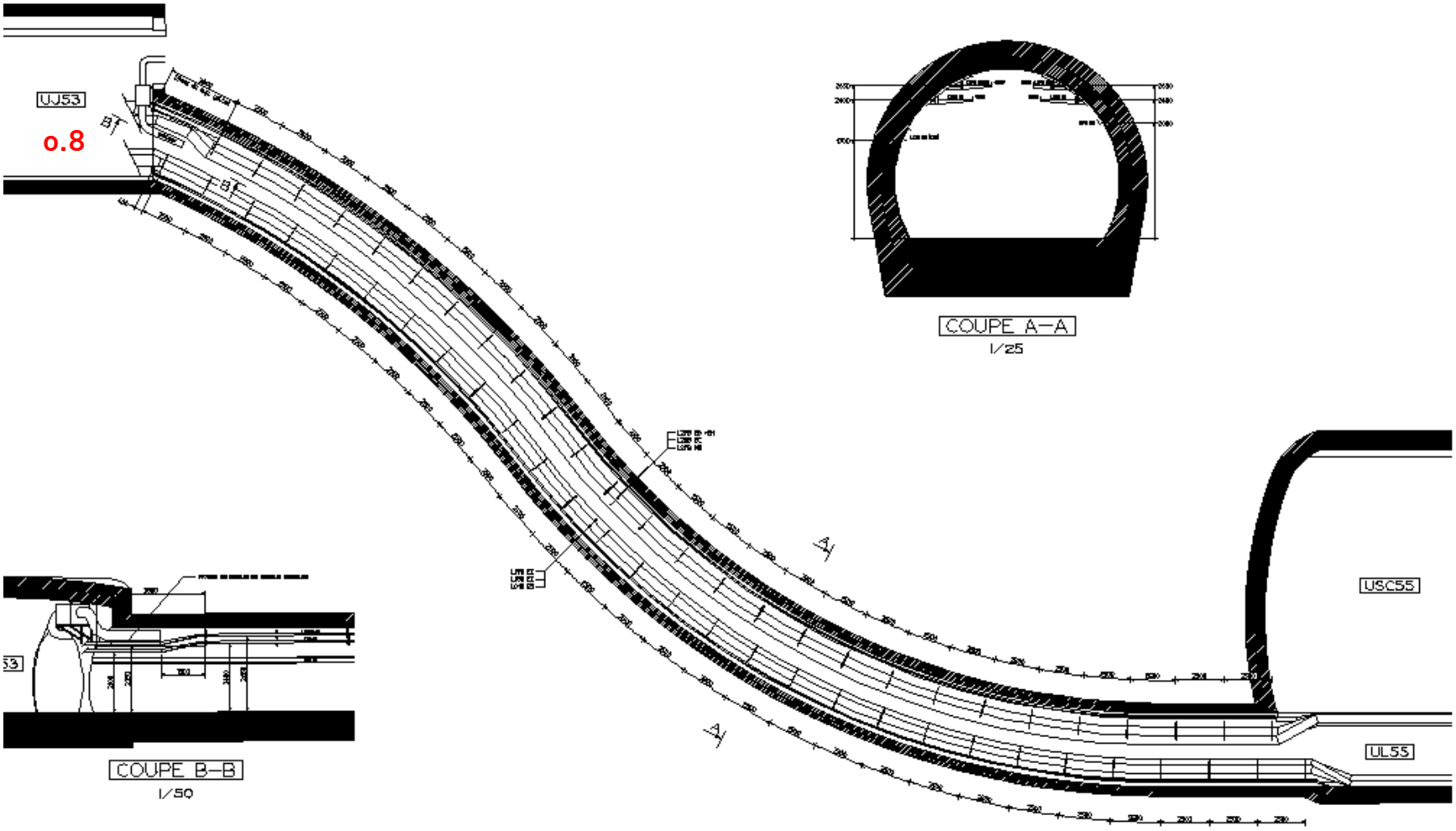


All values are expressed in mT

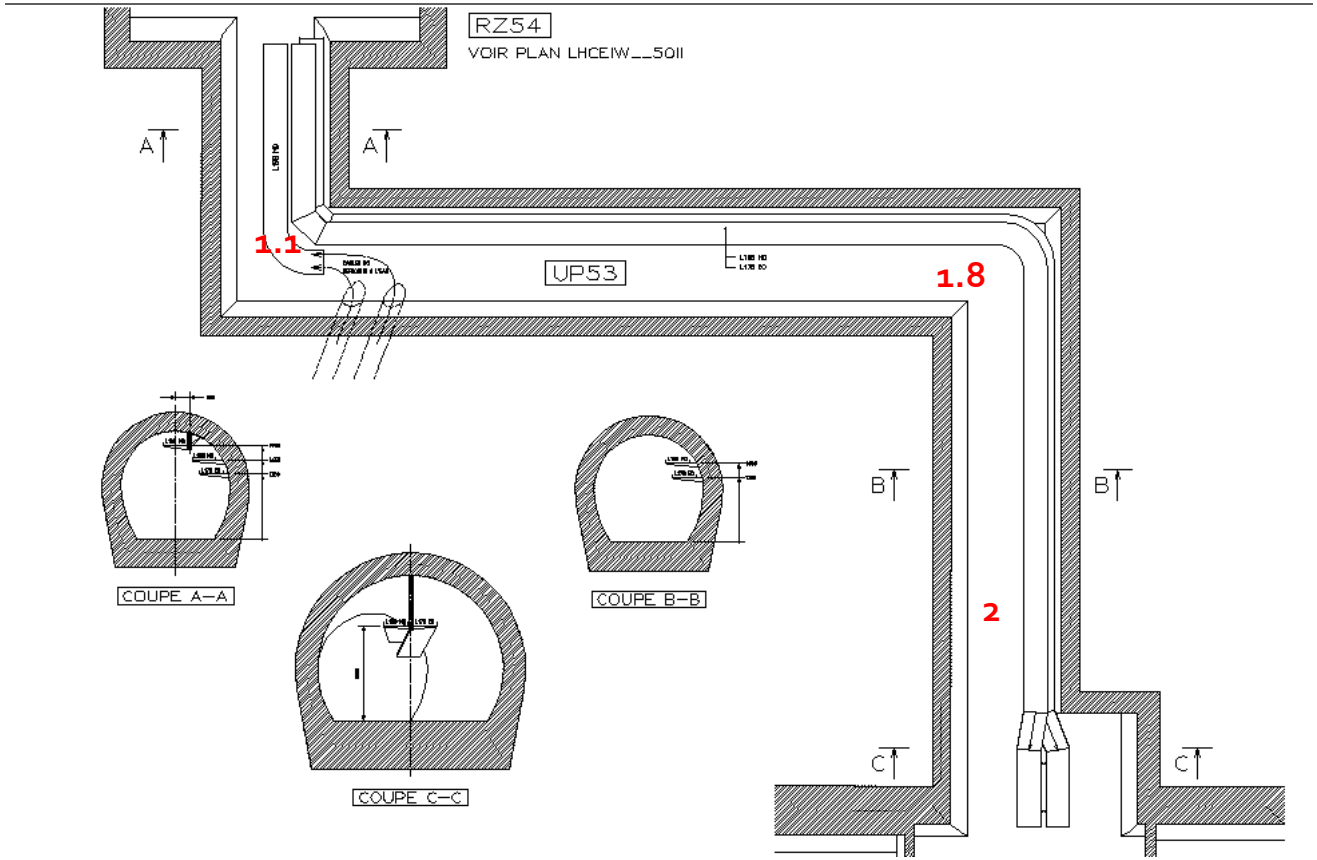
UL56


COUPE G-G
1/50
UJ56
UJ561
COUPE F-F
1/50
UJ58
UP56
UL56
UJ57
0.8
0.6
0.8
UJ57
COUPE D-D
1/50
UJSC55
UL55
UJ561
COUPE E-E
1/50
UL58
COUPE A-A
1/25
UJ561
COUPE B-B
1/25
UP56
COUPE C-C
1/25

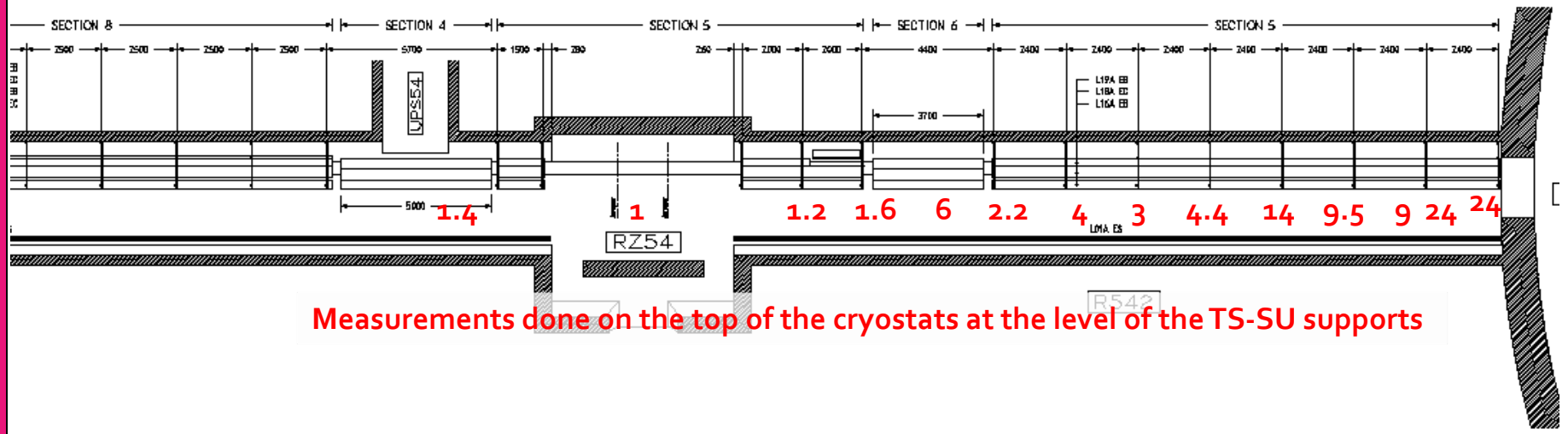
UL55



UP55

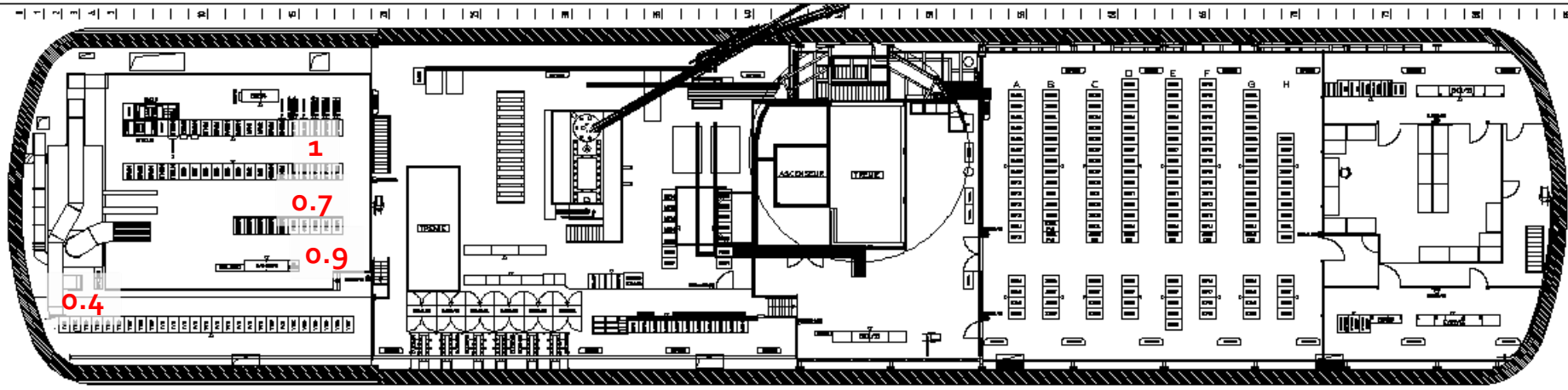

RZ54
VOIR PLAN LHCEIW__5011
A
A
1.1
UP53
1.8
B
B
2
C
C
COUPE A–A
COUPE B–B
COUPE C–C

RA54

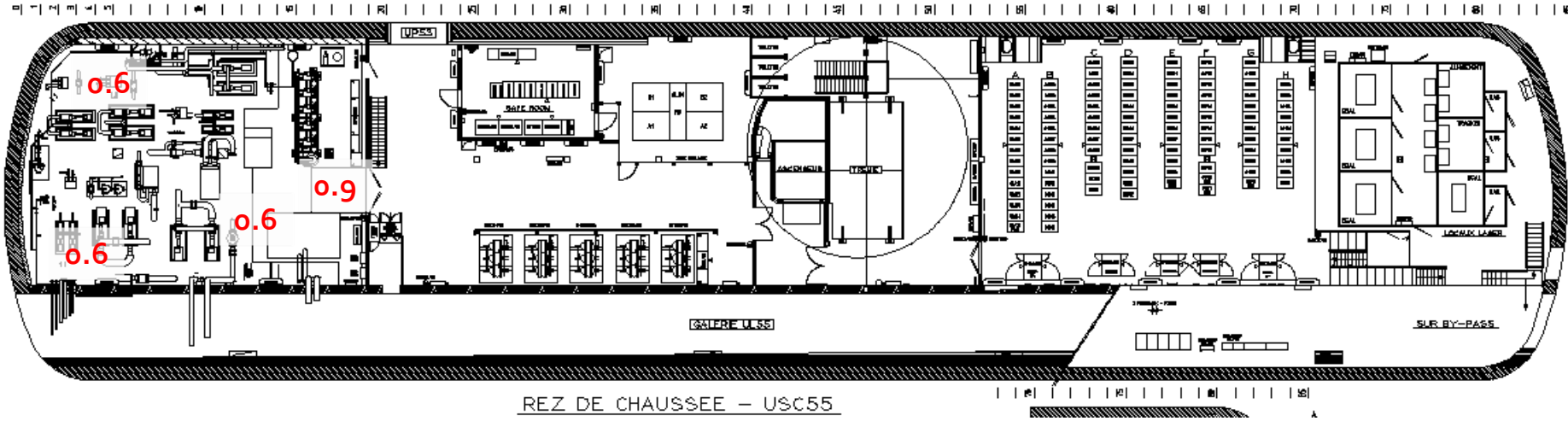


Measurements done on the top of the cryostats at the level of the TS-SU supports

USC55



ETAGE – USC55



REZ DE CHAUSSEE – USC55

CERN	**INSTRUCTION DE SÉCURITÉ SAFETY INSTRUCTION** Mandatory as defined in SAPOCO/42	**IS36 Rev. 2**

Issued by: SC-GS

Date of revision: June 2005
Original: English

Safety Rules for the Use of Static Magnetic Fields at CERN

Exposure characteristics	Magnetic flux density
Occupational Full working day (up to 8 h/d)	200 mT
General public Any	10 mT

4.2 Damage to electronic equipment and personal property

Various electronic equipment as well as magnetic data carriers may be affected by magnetic fields. For cathode ray devices and tubes this occurs already at 0.2 mT. Electronic implants such as cardiac pacemakers may be affected at fields above 0.5 mT. Computers, magnetic storage media, credit cards and analog watches may be affected in fields above 1 mT.