

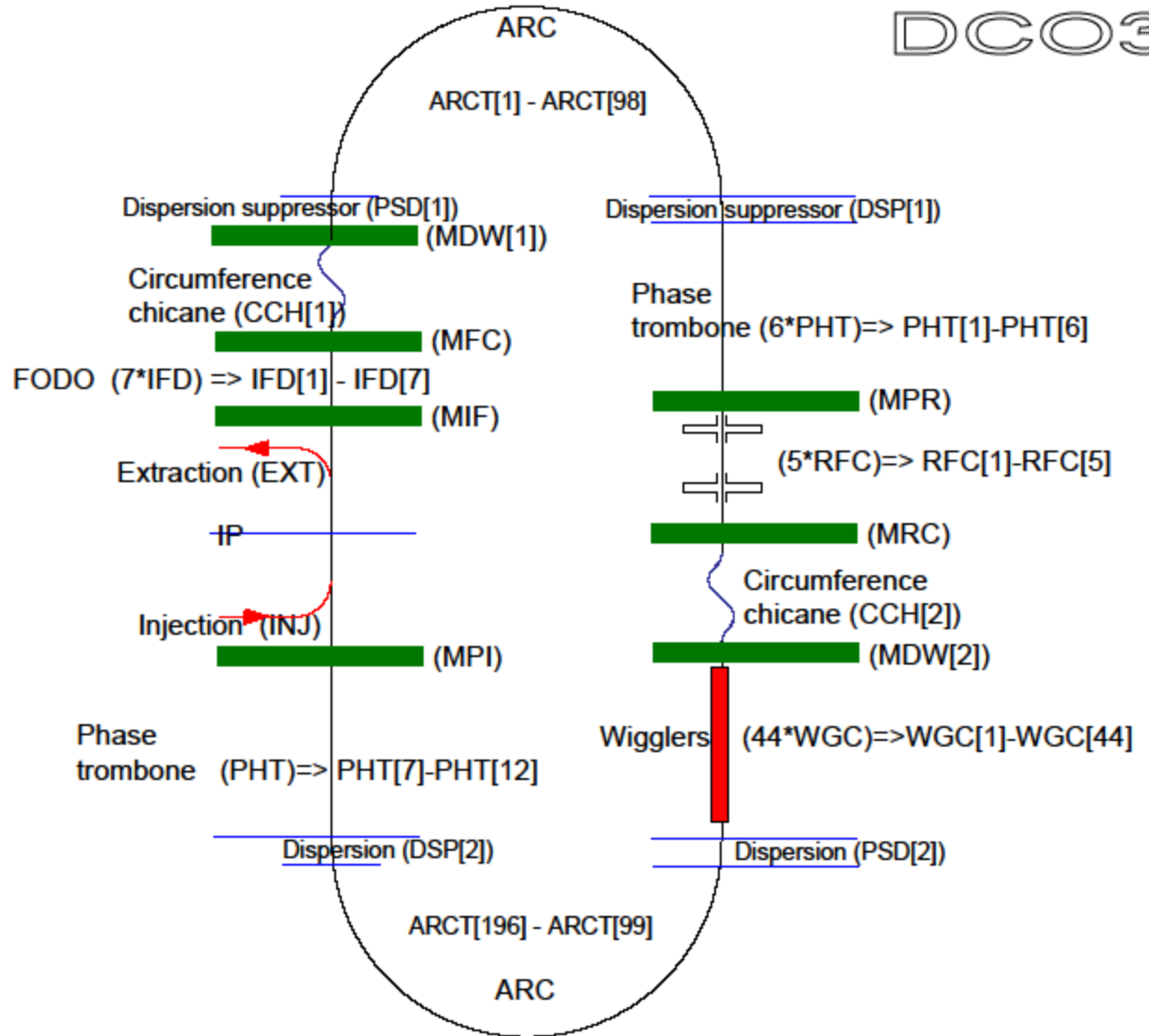


# Pictorial Damping Ring DC03 Layout

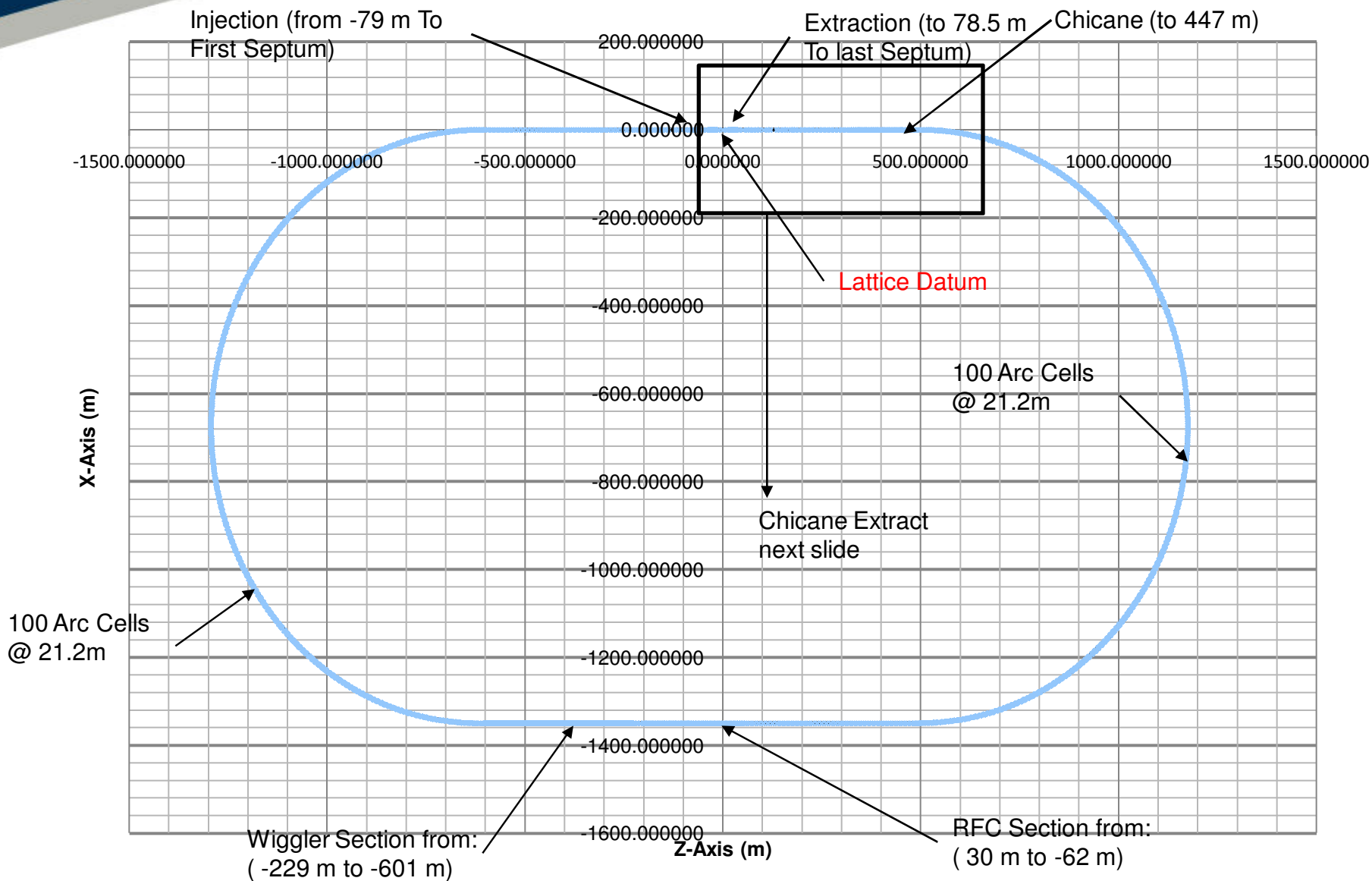
(A. Wolski, M. Korostelev)

DC03

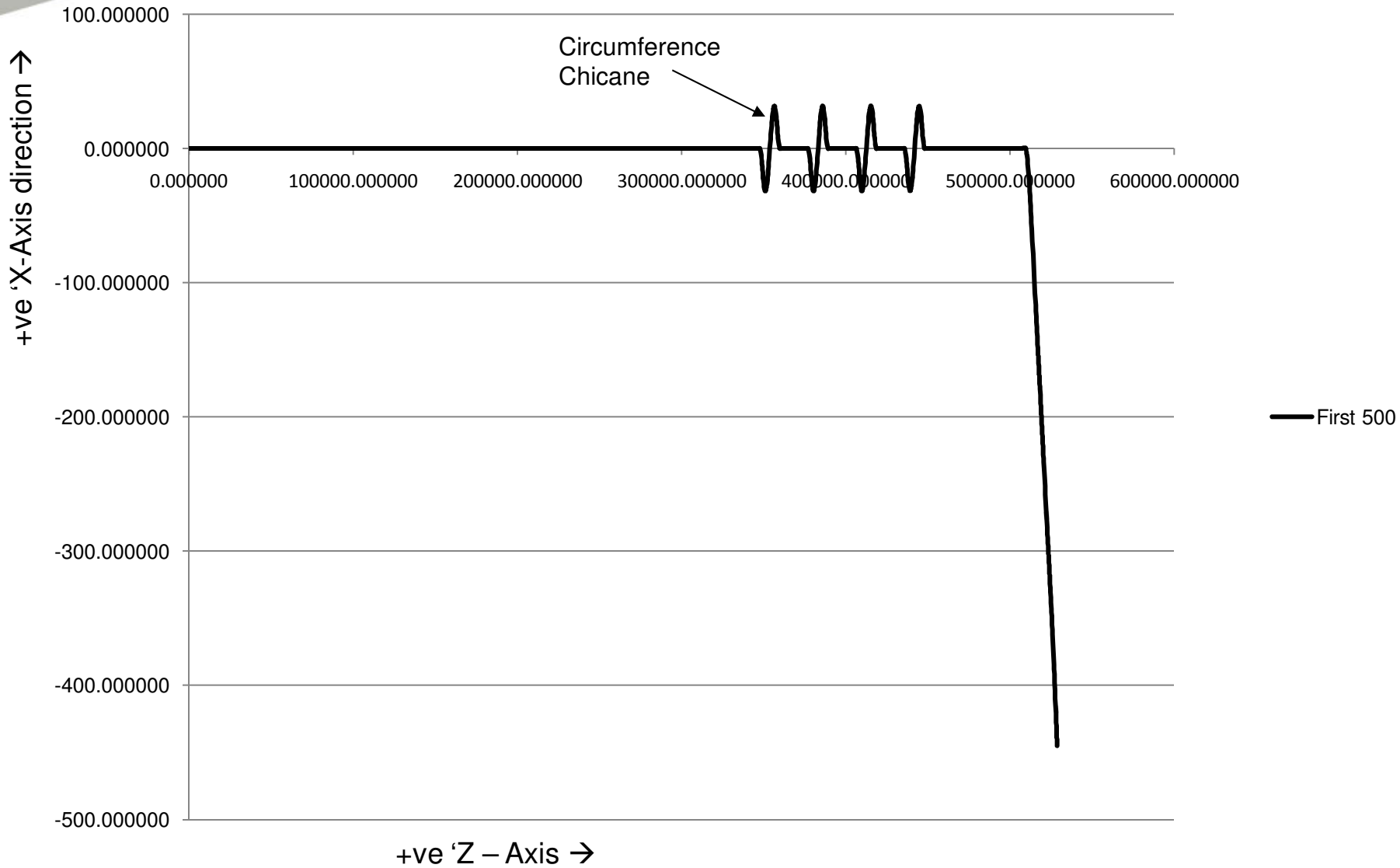
- EXT
- MIF
- 7\*IFD
- MFC
- CCH
- MDW
- PSD
- 98\*ARCT
- DSP
- 6\*PHT
- MPR
- 5\*RFC
- MRC
- CCH
- MDW
- 44\*WGC
- PSD
- 98\*ARCT
- DSP
- 6\*PHT
- MPI
- INJ



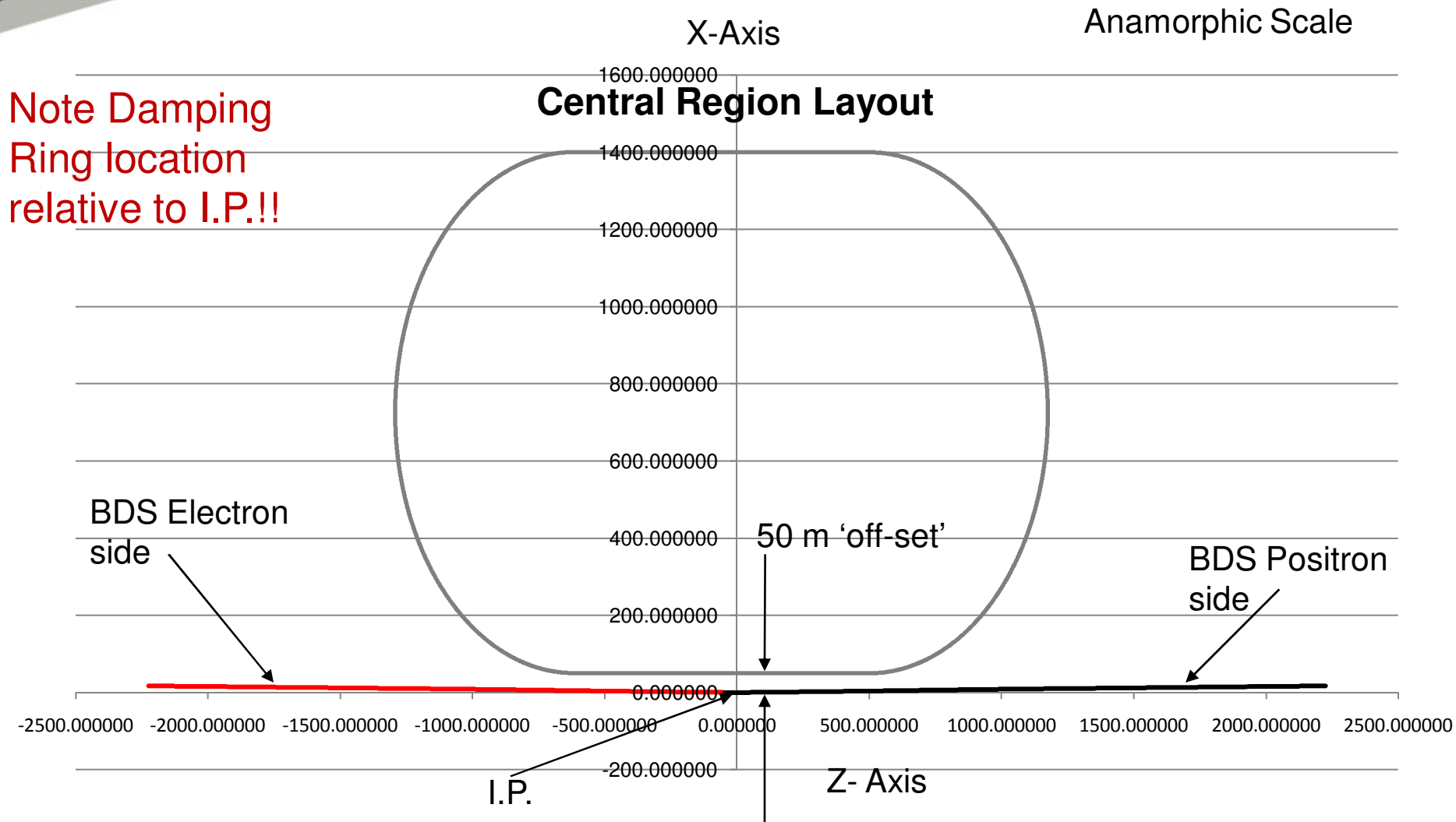
# Damping Ring DC03 Layout including dimensions (from Lattice)



# Damping Ring DC03 Layout including dimensions First 500

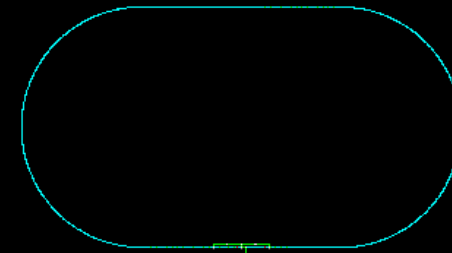


# ILC Central Region Layout:



# AutoCAD Damping Ring DC03 Layout:

Work in progress (10/07/2009 snapshot).  
ACAD data available on request.



NOTE:  
WORK IN PROGRESS.  
ELECTRON FAST ABORT INFO AND  
DIAGNOSTIC LEADING TO 11MW DUMP  
INFO REQUIRED  
ELECTRON DUMP PAST I.P. INFO NOT  
INCLUDED.  
3.2M CIRCUMFERENCE DAMPING RING  
FOR ILLUSTRATION ONLY.  
CIRCUMFERENCE IS CORRECT, INJECTION  
AND EXTRACTION ARE INCORRECT.  
ZOOM IN FOR DETAILS.

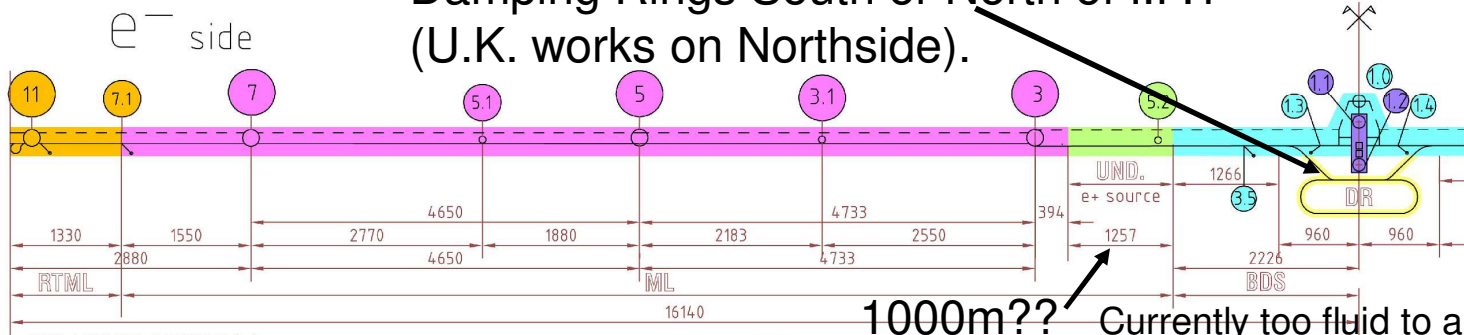
READ NOTE

RELEASE STATUS	WIP
FACTORY SPEC	Y/N
NATIONAL SPEC	Y/N
MATERIAL	Y/N
YIELD/STRENGTH UNLESS OTHERWISE STATED	
LINEAR DIMENSIONS UP TO 50 ± 0.25, OVER 50 ± 1.0	
ANGULAR DIMENSIONS ± 0.1°	
SCALE	1:1
ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED	
DATE	07/10/09
BY	AD
CHECKED BY	
DRAWING TITLE LINE 0	DAMPING RING DC03
DRAWING TITLE LINE 1	
DRAWING TITLE LINE 2	
DRAWING TITLE LINE 3	
DRAWING TITLE LINE 4	
DRAWING TITLE LINE 5	
DRAWING TITLE LINE 6	
DRAWING TITLE LINE 7	
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DRAWING TITLE LINE 9	
DRAWING TITLE LINE 10	
DRAWING TITLE LINE 11	
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DRAWING TITLE LINE 99	
DRAWING TITLE LINE 100	

FROM THIS TO (Following Slide):

# AutoCAD Layout (J. Osborne, CERN):

Damping Rings South or North of I.P.?  
(U.K. works on Northside).



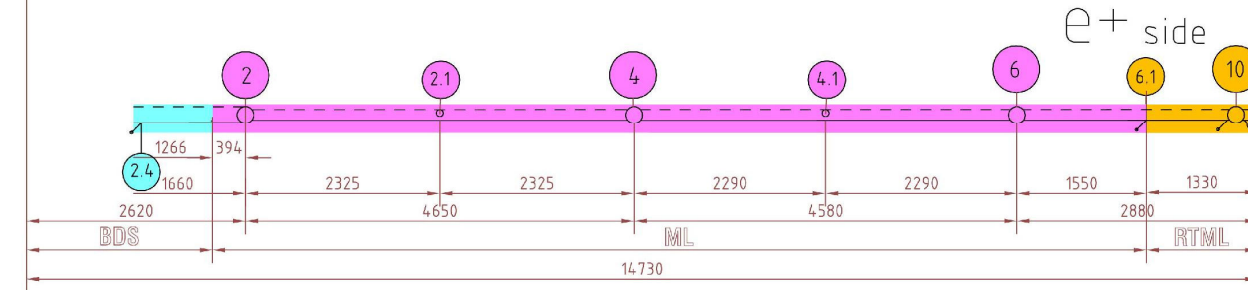
SITE / TUNNEL LENGTHS (m)

e- side + Undulator ML + RTML	e+ side ML + RTML	BDS + sources	DR	TOTAL
13 914 / 27 948	12 504 / 25 128	4 452 / 12 236	0 / 6704	30 870 / 72 016

TUNNELS

Area	e- inject.,KAS beam + serv	DR	RTML beam + serv	ML beam + serv	BDS beam + serv	BDS Survey
φm	4.5	5.0	4.5 + 4.5	4.5 + 4.5	4.5 + 4.5	1.5 x 2.2

TABLES NEED TO BE UPDATED



- Legend :
- RTML
  - ML
  - DR
  - Sources e- KAS
  - BDS
  - Detectors Area

SHAFTS

Point	1.0	1.1	1.2	2	3	3.3	5.2	4	5	6	7	10	11	12/C	13/A
φm	9	16	16	14	14	4	4	14	14	9	9	14	14	9	9

BORINGS

Point	2.1, 3.1, 4.1, 5.1	2.2, 3.2	1.3, 1.4, 2.4, 3.5
φm	1.50		

SHAFT BASE CAVERNS

Point	2, 3, 4, 5, 6, 7, 10, 11
(LxWxH) m	49 x 16 x 18 + 3 storeys

MUON WALL WIDENINGS

Point	1.3, 1.4
(LxWxH) m	25 x 7x6 +15x7x6

SOURCES CAVERNS

Point	Undulator 5.2	KAS 3.3	2.2, 3.2
(LxWxH) m	21 161m3	6 574m3	7 X 15 X 7.5

DR ALCOVES

Point	12/C, 13/A	B, D, E, F
(LxWxH) m	75 x 10 x 10 + 1storey	16 x 8 x 8

DETECTORS HALL

Point	1.1, 1.2	1.0
(LxWxH) m	120 x 25 x 39	40 x 15 x 15

BEAM DUMPS CAVERNS ( \ )

Point	SOURCES 2.3, 3.4	RTML 6.1, 7.1, 10, 11	BDS 1.3, 1.4, 2.4, 3.5
(LxWxH) m	5 x 4 x 4		
	20 x 9 x 15 + 1storey		

BEAM DUMP SERVICE HALLS ( \ )

Point	BDS 1.3, 1.4, 2.4, 3.5
(LxWxH) m	30x20x 10

## ILC - RE-BASLINING PROPOSALS

UndulatorArea moved, KAS deleted, Dumping Ring 3.2km

EUROPEAN REGION



GROUP : TS-CE  
CIVIL ENGINEERING  
SUPERVISOR : J.OSBORNE  
DESIGNER : A.KOSMICKI

SCALE : 1/50000(A3\_FORMAT) DATE: JUNE\_4TH\_2009

ILC-.CE-1.1649.0022 3

## Damping Ring DC03 Layout questions:

Note the above is the revised 6.4km circumference Damping Ring layout.

The 3.2 km layout is approximately half the size with the components in the 'same relative position' (count differs). This information needs to be propagated to RTML WorkGroup (N. Solyak). Nikolay will then be able to advise on the off-set (Physics constraints rather than Physical).

Start discussion about number off shafts, their size and location.

Water supply and power supply routes should now be easier to identify.

AutoCAD details (DC03 layout) will be finished soon to e-mail to CF&S if required (done).

You got to love Whiteboards (shows how messy you are). Important figure to know is Alpha??

Any other comments or points omitted?

