

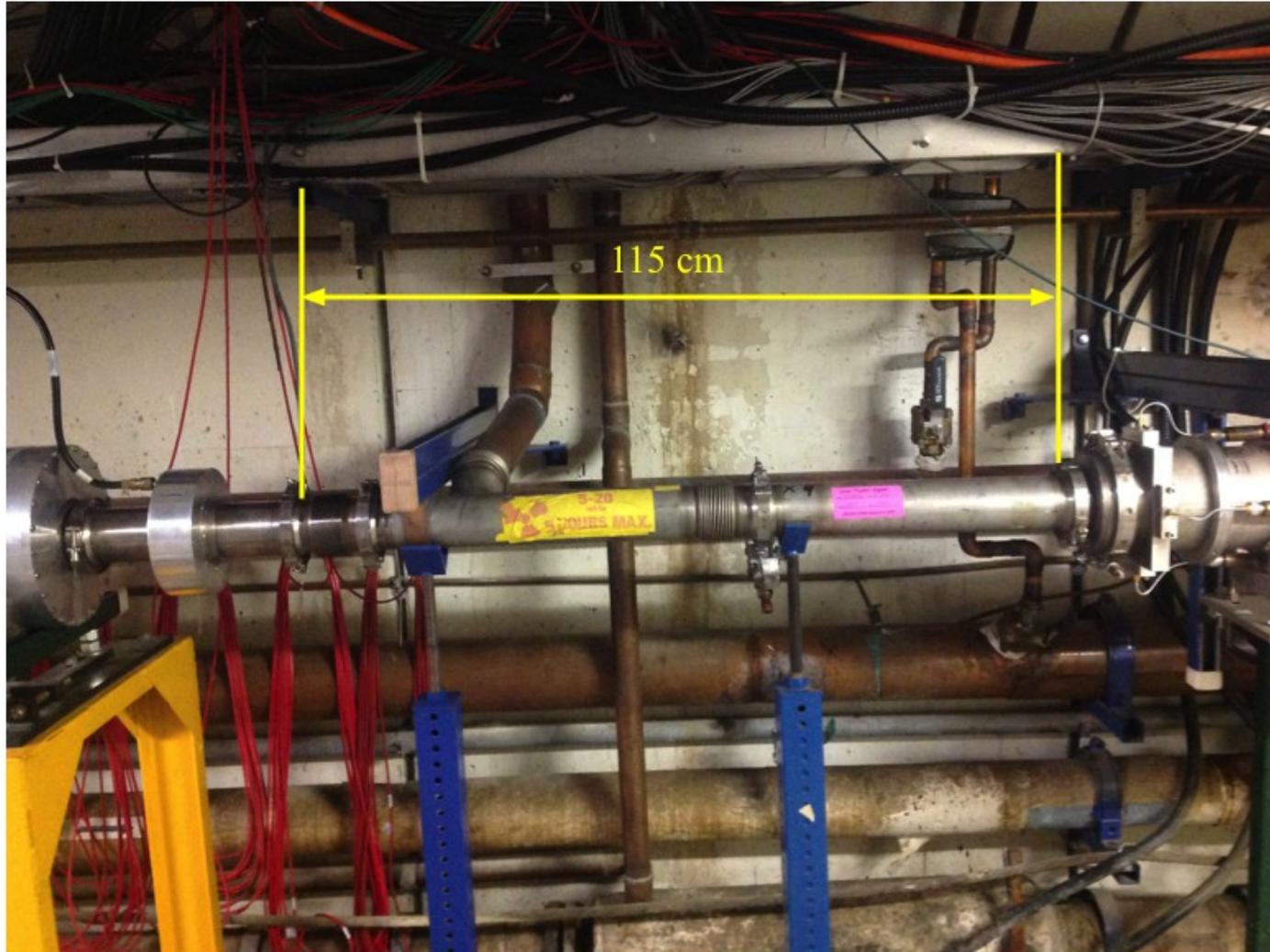
# L11 tunnel install

C.Y. Tan & R. Madrak  
20 Jul 2017

# L11 install notes

- As designed cavity will fit in tunnel, but barely
  - Current cavity is 27”.
  - Assume HOM cavity is 6”
  - Total length is 33” = 94 cm
  - However,
    - must have bellows  $2 \times 2.5'' = 5'' = 13 \text{ cm}$
    - And pump port = ??
  - Total length  $(33'' + 5'' + ??) = 38'' + ??$

# Longitudinal space



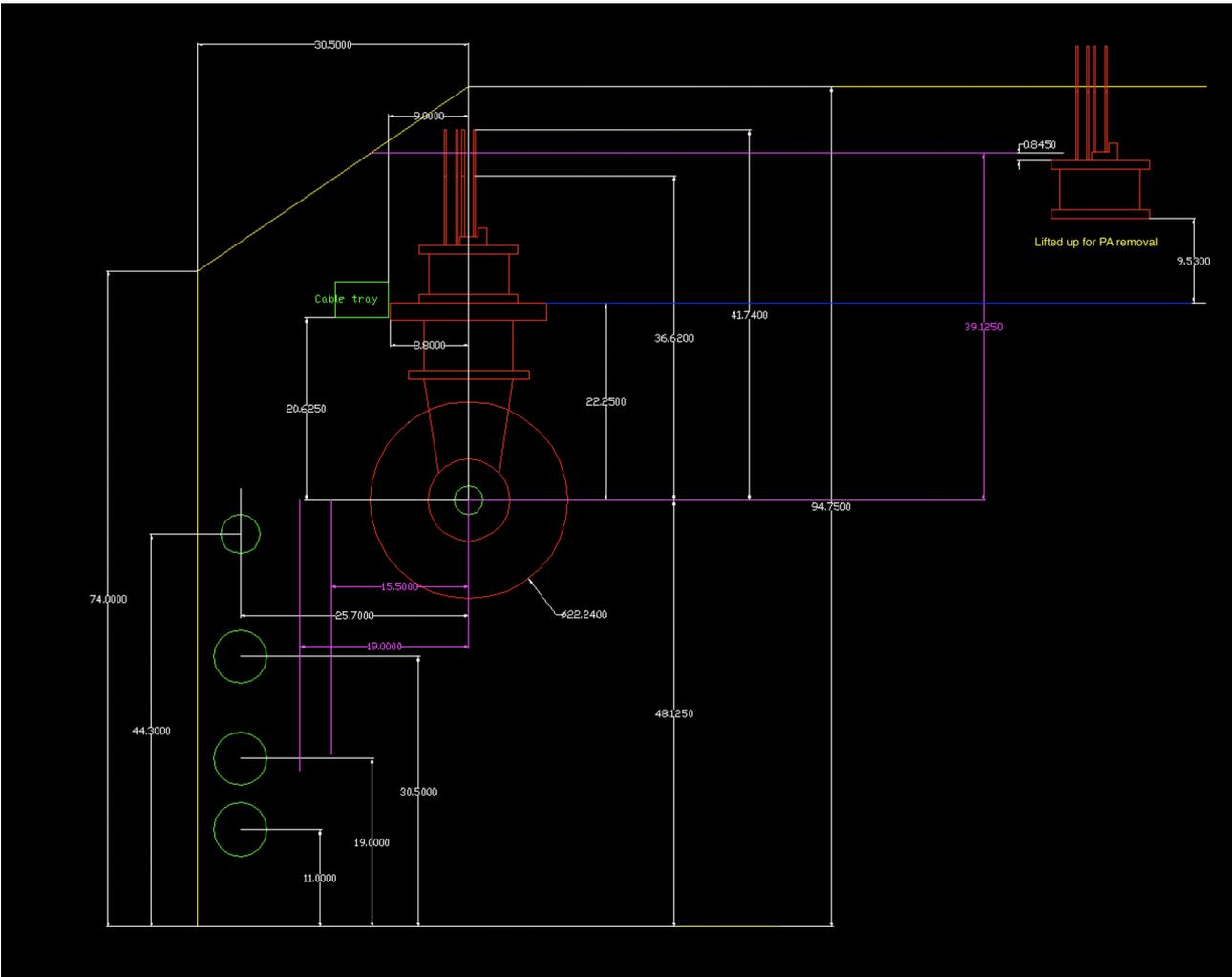
115 cm = 45" between flanges.

We have about 6" left to play with pump port etc.

We **have** to move the vacuum roughing port.

If necessary, we have to shorten the toroid which gains us another 6".

# Transverse space



The cavity **will** fit BUT:

- Depending on where the final cavity is it may not be possible to just change out the PA without removing the cathode resonator first.
- We have to shorten the water tubes that stick out from the top.
- We need 9.53" completely clear the PA from the outer shell.
- We have about 0.8" clearance from the top of the cathode resonator to the bottom of the copper water pipe. This only works if the cooling tubes and hoses don't hit the ceiling.

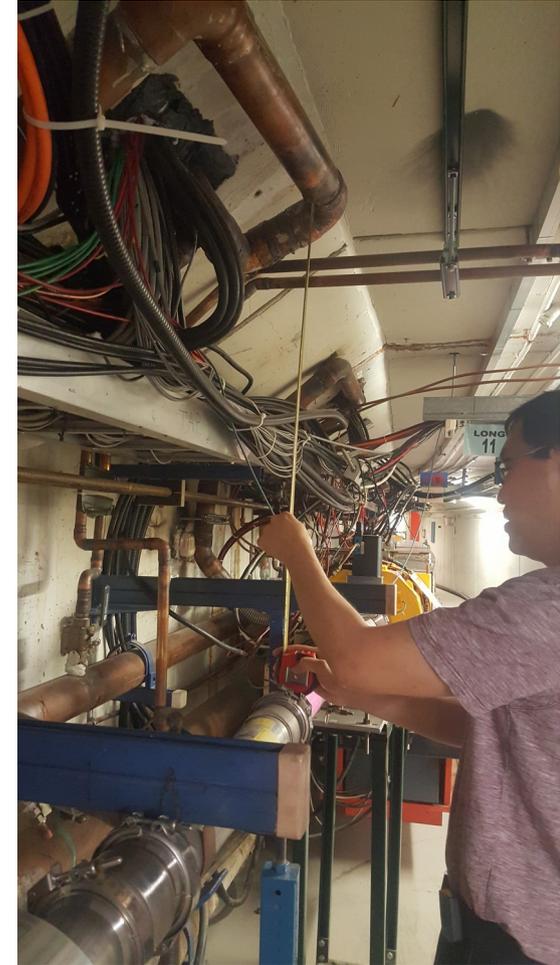
# All the oddball obstructions (marked in magenta in previous slide)



15.5" from centre of beam pipe to water pipe



37.5" from top of beam pipe to water pipe



37.5" from top of beam pipe to water pipe

# Oddball obstructions (cont'd)



Distance from centre of beam pipe to edge of water pipe is 19"