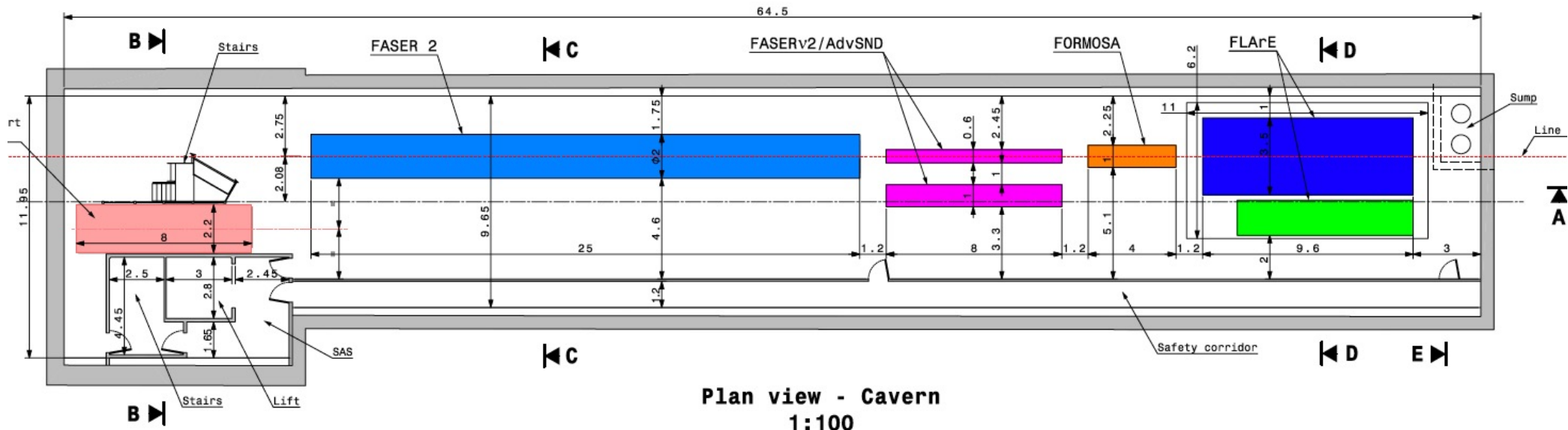


# Discussion: Synergies between Experiments

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# Is placement and order of experiments optimal?

- FLArE at start of cavern for safety reasons
- FASER2 spectrometer used for measuring muon momentum for neutrino interactions in FLArE and FASERnu2
  - Reducing gap between FLArE and FASER2 will help acceptance
- AdvSND is an off-axis detector:
  - With associated infrastructure wont actually fit next to FASERnu2 as in the current location shown in our sketch
  - Is the rapidity range covered optimized for physics output? (maybe a question to discuss with the physics WGs)
- FORMOSA physics does not require the detector to be very aligned with LOS
  - Possibly this could be moved next to (or above/below?) another detector to save some space



# Can we use information from multiple experiments to improve physics potential

- Already expect to measure charge/momentum in FASER2 for FLArE/FASERnu2 analysis
- One experiment act as a veto for another?
- Measure  $dE/dx$  (energy loss) of a particle in more than 1 detector (technology)?
- Other ideas?

What is possible / interesting here?

