Roman pots and Off-Momentum Detectors Updates

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Updates

- Engineers identified to work on new vacuum system design, and this work is now underway.
  - Requirements detailed to them last week.
- ML reco algorithm is making progress and integration into EICRecon will begin soon.
- Vacuum volume for particle propagation in FF region is now merged into ePIC main branch.
  - There is one minor issue to be fixed → today. But it does work.

Needs for preliminary design review

- Full evaluation of performance in DD4HEP with proper material map, tracking, and reco.
  - We need to make sure everything done in stand-alone studies can be done in DD4HEP.
- Preliminary engineering design for support system and shielding.
  - Engineers identified, and focused work is now beginning on this.
  - Exit window(s) needed for neutral transport/OMD transport.
- Cooling system design.
  - Cooling detector in vacuum → will overlap with other structural components.