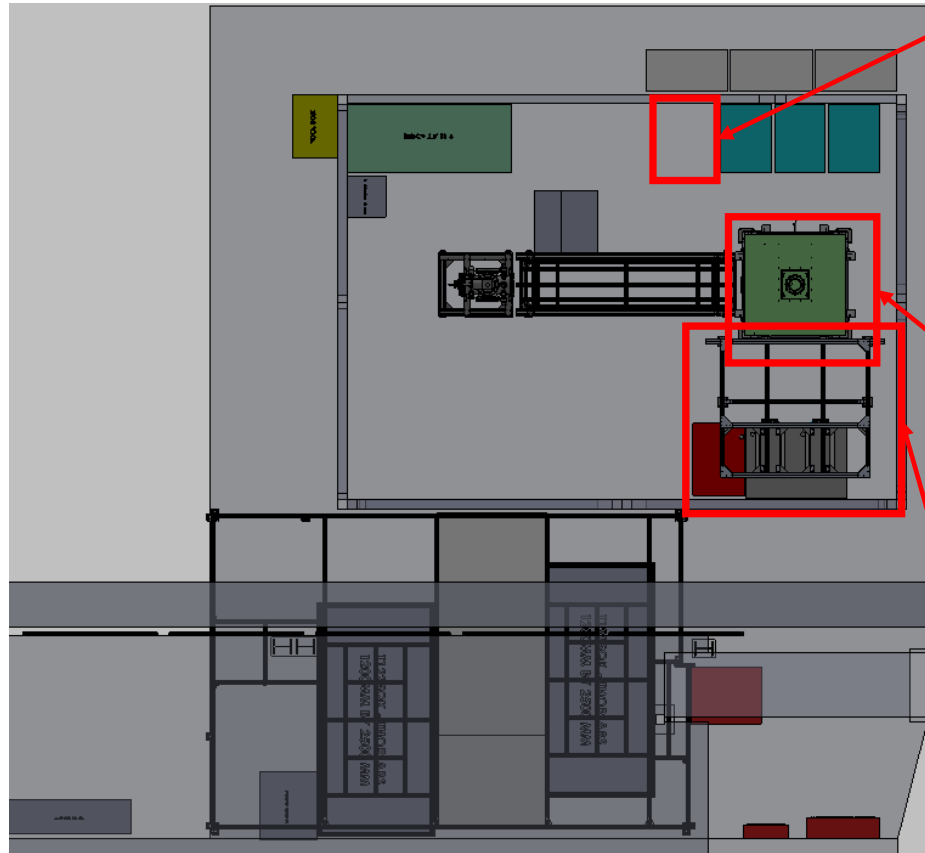




HAICU TRIUMF infrastructure: progress update

Nicolas Massacret

October 20, 2026



HAICU experimental area: top view

Interlock box

- Assembled and tested (100%)
- Sub-system connections in progress



Interlock box

Trap cradle and support frame

- Assembled and operational (100%)



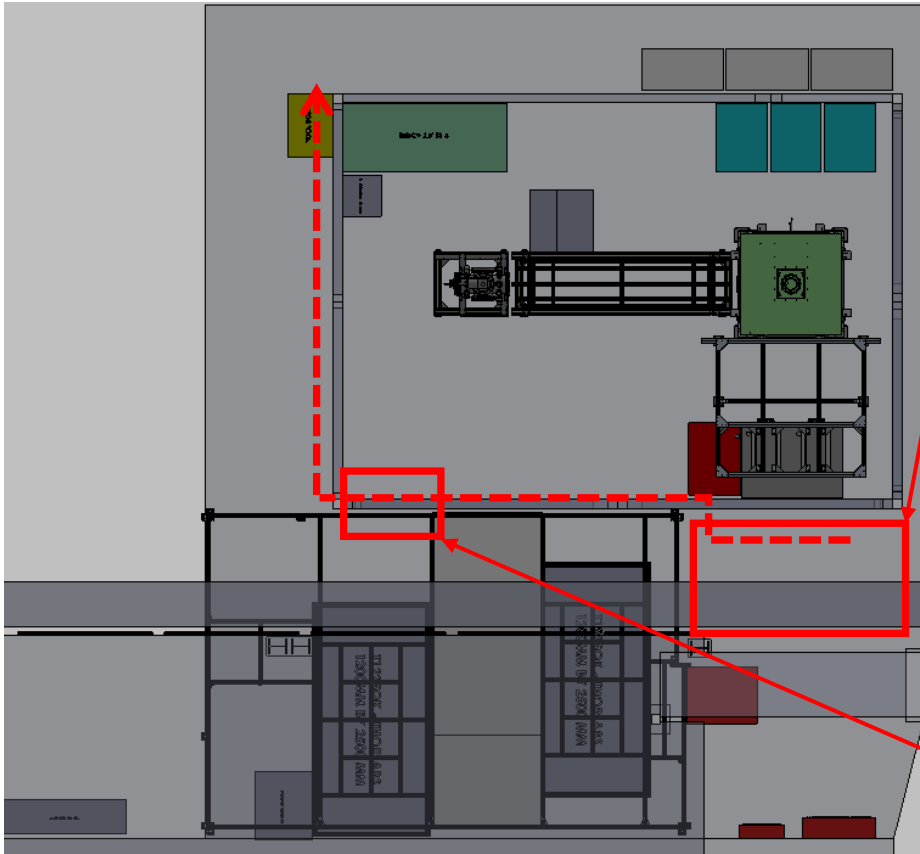
Trap being craned

Trap electrical services

- All cables ready (100%)
- Cable installation: 60% done
- Engineering barriers over exposed connectors: not started



Power-supply connection to the trap



HAICU experimental area: top view

Trap water cooling

- Water manifold assembled
- Manifold drain installation: 75% done
- Flowmeter box installed
- Flowmeter wiring: 25% done
- Pipe from the manifold up to the support structure: not started

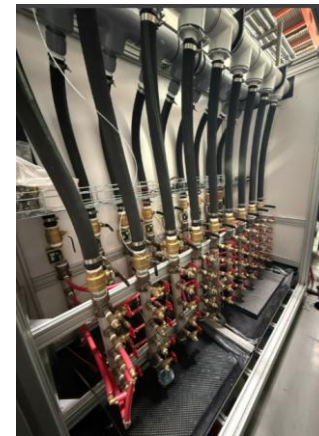
} Needed for the manifold pressure test

Water supply

- Water supply to HAICU operational
- Connection to the manifold not started



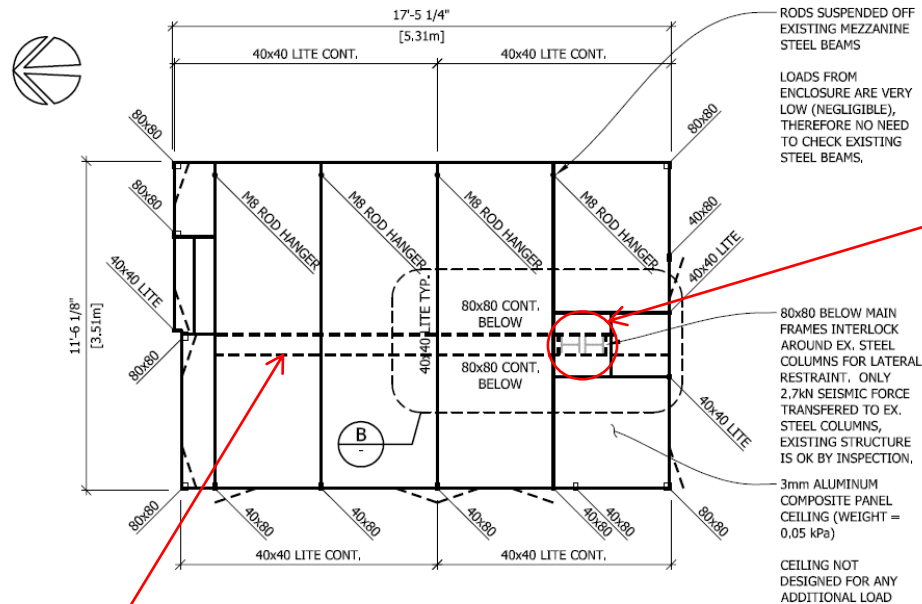
Water supply to HAICU



Water manifold

Structural and seismic upgrades

- Ceiling extrusions anchoring the hut to the existing I-beam: assembled
- Structural braces on walls: 70% mounted
- Concrete anchors: 70% installed



New 80 × 80 mm
extrusions

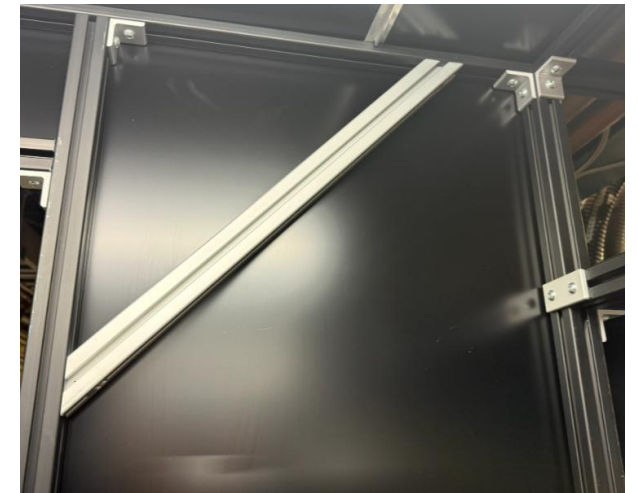
CEILING PLAN
1/4" = 1'-0"

Two 80 × 80 mm extrusions anchoring the ceiling to
a vertical I-beam

Existing vertical I-beam



New extrusions on the ceiling



Structural braces on the walls

**Air conditioning unit**

Operational

**Air filtration unit**

Received; installation not started

Terra Universal 6601-22A-H-LP (fan with HEPA filter)

**Doors and access**

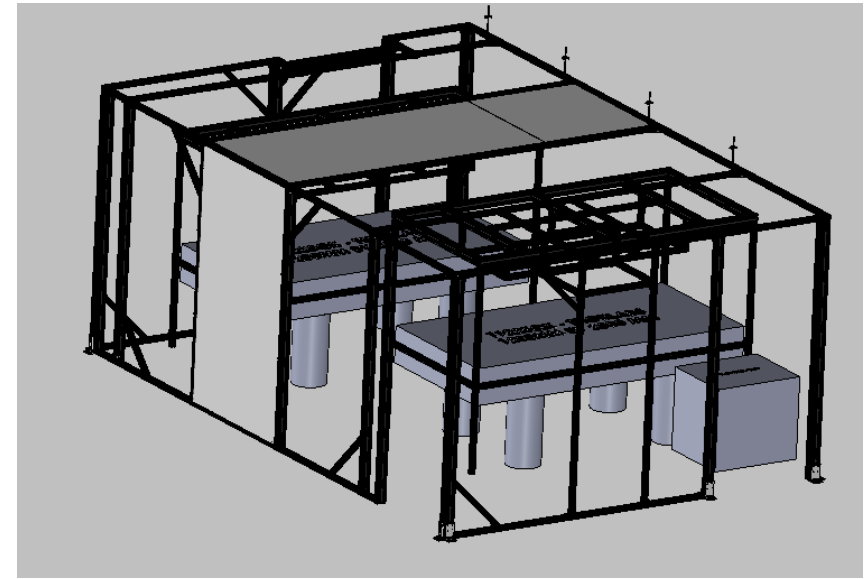
Not started

Doors, handles, door interlock and entrance curtain

**Epoxy floor sealant**

In planning

Sikafloor®-269 CR (Sika), non-ESD cleanroom epoxy?



Laser hut (model)



Air filtration unit: Terra Universal 6601-22A-H-LP

Trap assembly

Heater flex issue: trap disassembled

Trap mounted on cradle



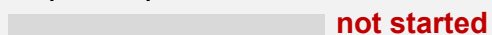
Heater flex installation



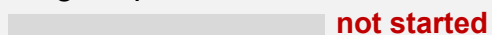
Trap reassembly



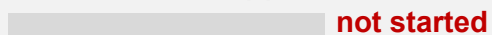
4 quadrupoles added



Magnet powered and tested



Craned onto support



Next: reassemble the trap, add the 4 quadrupoles and power the magnet before craning it onto the support structure

Trap services

Interlock box built & tested



Interlock connections



Cradle & support frame



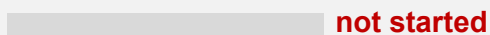
Power cables ready



Power cables installed



Barriers over connectors



Next: finish cable installation and interlock connections; install the engineering barriers

Water cooling

Water manifold assembled



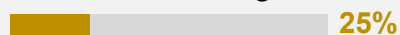
Manifold drain



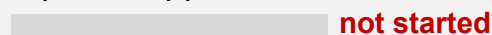
Flowmeter box installed



Flowmeter wiring



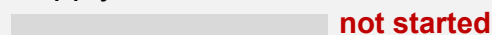
Pipe to support structure



Water supply to HAICU



Supply to manifold



Next: finish the drain, then the pressure test; flowmeter wiring; pipe to the support structure; connect the supply

Laser hut

Ceiling extrusions



Wall braces mounted



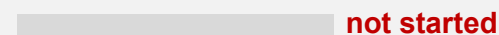
Concrete anchors



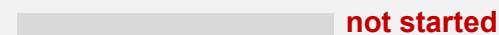
Air conditioning



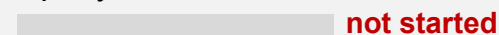
Air filtration unit



Doors & entrance curtain



Epoxy floor sealant



Next: finish braces and anchors, install the air filtration unit, doors and interlock, epoxy floor

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