

NMX Update

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IKON 19 29th Sep ,2020

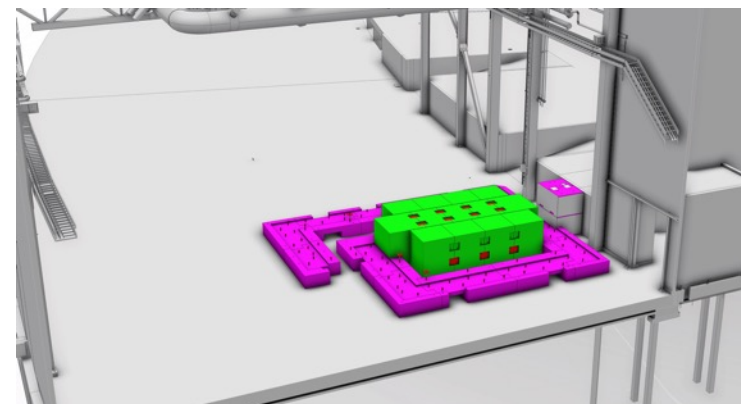
The experimental cave



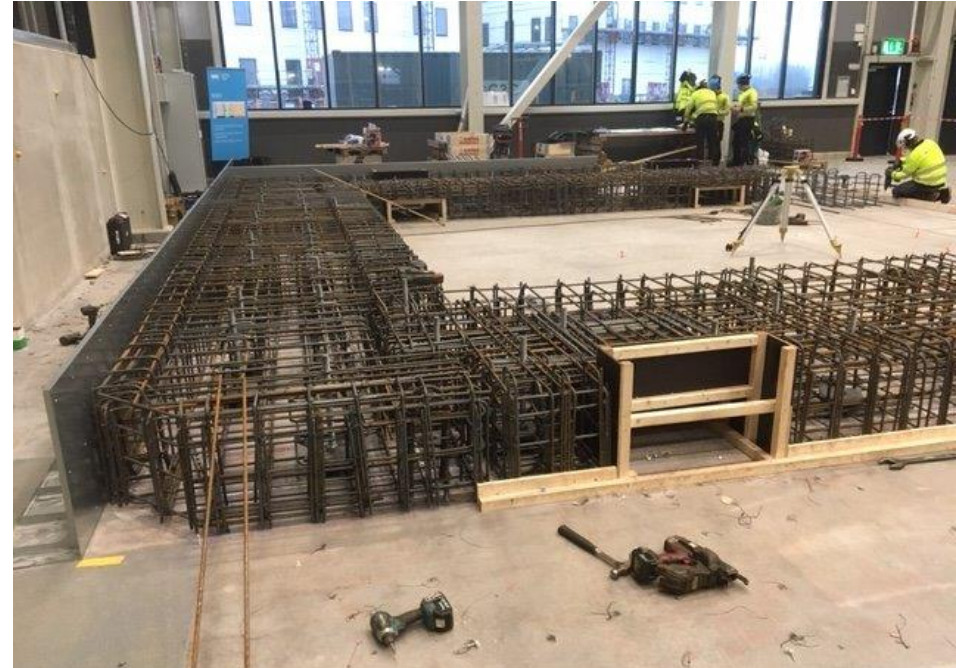
at IKON 18...

Cave foundation and internal plinths, all dismantable

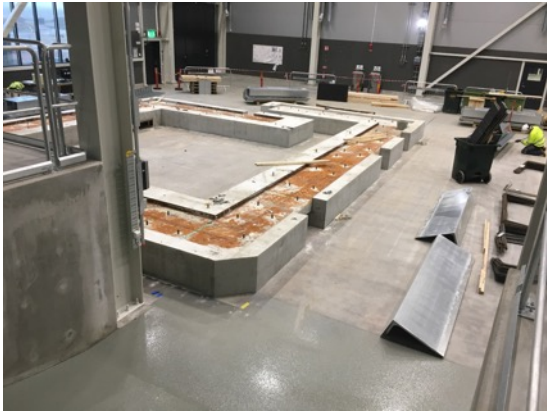
Detail design and manufacturing contract awarded to
C3C Engineering AB: Started casting 19th Dec 2019



Some pictures



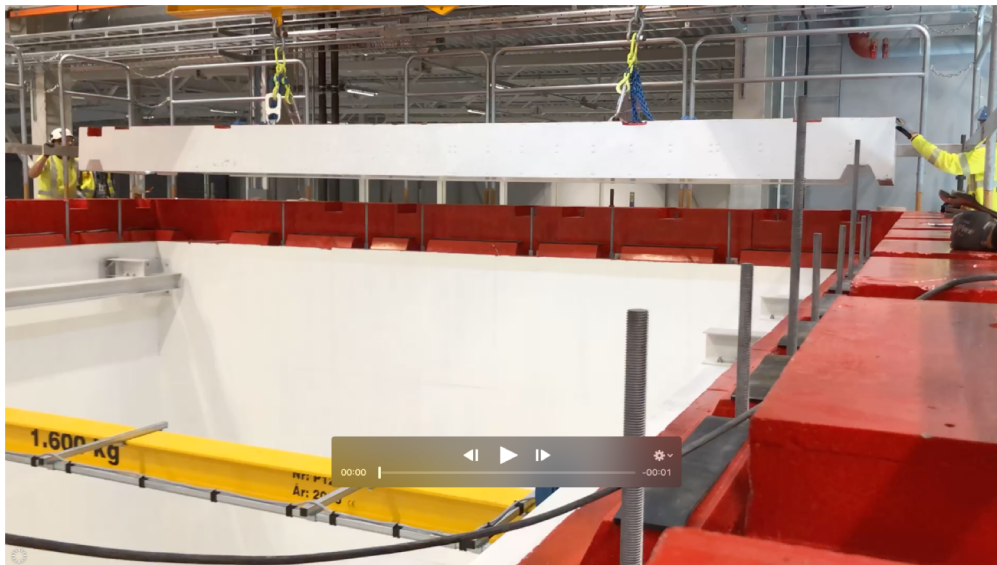
Some pictures



Since Ikon 18 Completion of walls and internal support structure



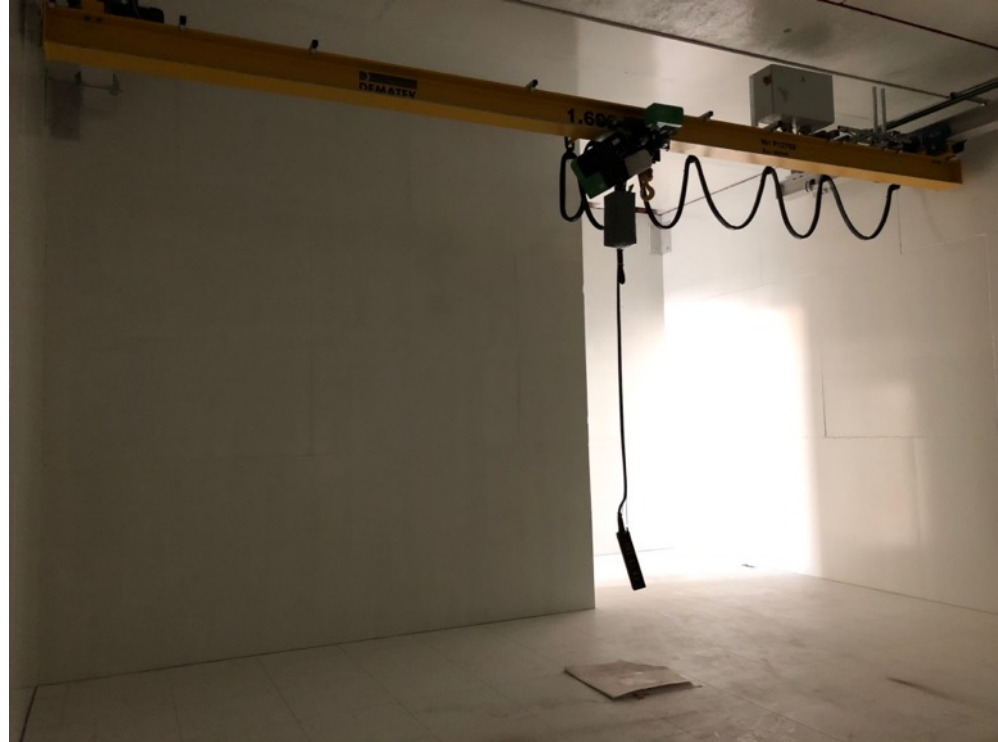
Since Ikon 18 Installation of roof



Since Ikon 18 Installation of door



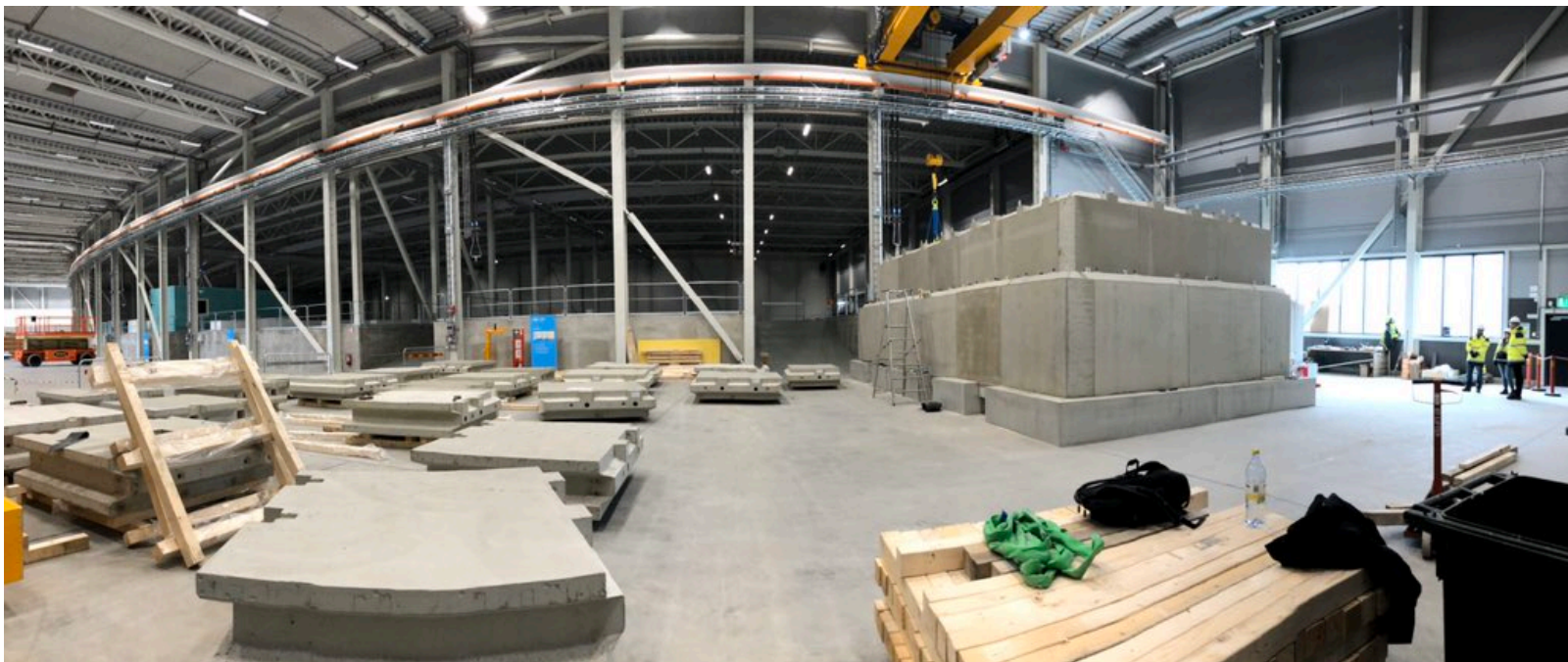
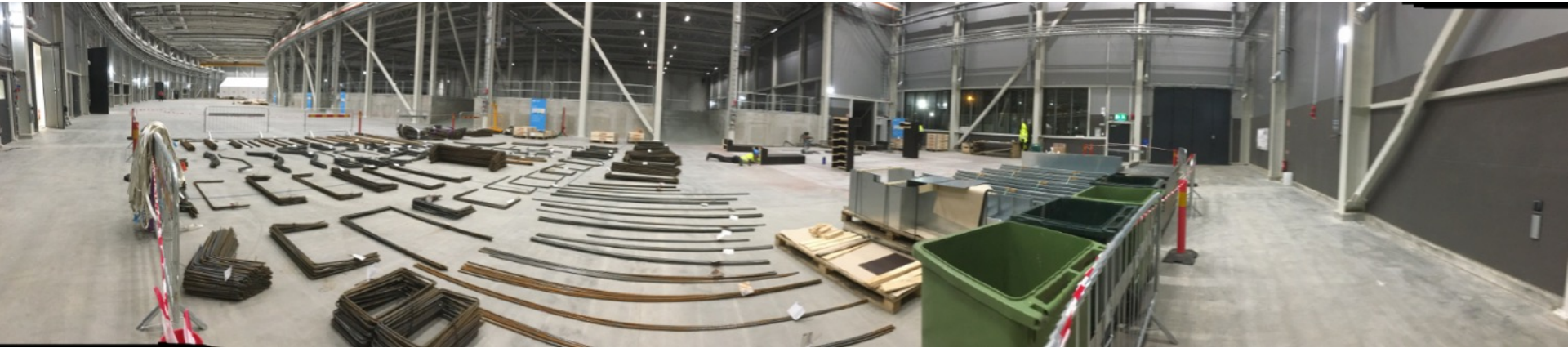
Since Ikon 18 Installation local crane



Since Ikon 18 Installation of raised floor



Lesson learnt: Management of work area



Non conformities



Lesson learnt: QA welds



What went well

- Positioning accuracy
 - the beam opening is within 10 mm from nominal position.
- Availability of rigging team
- 10t crane footprint
- Health and safety
 - Teams have been diligent with safety regulations.
 - Use of scaffold instead of boom lift made the installation safer
- Logistics
 - Large space, available for a long time.
 - Quick responsiveness of ESS logistics.

What could have gone better

- Schedule drift due to manufacturing delays (COVID-19)
- QA: Requirements on critical welds
- QA: Crane mandatory inspections
 - Crane oil leak and electrical installation still to be rectified
- QA Grounding
 - Grounding insulation breaching
- Other non conformities
 - Slighter larger gaps between roof elements and at door.
 - Incomplete kickboards on rails of the roof
 - Incorrect position of ladder hand guard

Construction process IPL involvement

Preparatory work

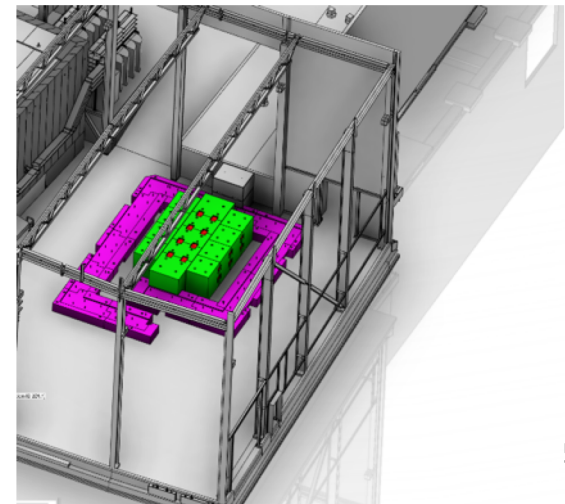
- Created the Ib 201 (Cave foundation only)
- Collected workers safety certificates (Hot works, first aid)
- Collected RAMS and Performed TG4 IRR
- Consultations with BAS-P and EH&S on general safety
- Consultations with CF to agree on floor loading and grinding.
- Consultations with rigging team on construction and operations
- Issued Work order and Organized site induction courses
- Restrict site plan

Recursive work

- Issue work requests for each operation on EAM tool (SAM/Rigging/Unloading)
- Timely procure services (Temp crane..)
- Coordinate with logistics to ensure access to trucks
- Regularly update the installation binder
- Regular safety rounds

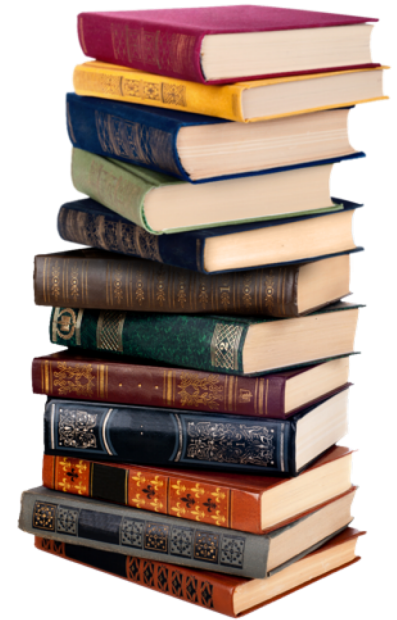
Setup of construction environment framework

- BAS-U, area BAS-U and BAS-P
- Notification to authorities
- Construction H&S plan
- Site plan organization
- Hot work permits



Lesson learnt: Organization

- Coordination with Bas-P, Bas-U and ESS rigging team was paramount.
- After TG4, extensive amount of work planning with area coordinator, BAS-U, rigging team, SEC, and metrology. Part of this work falls on the IPL shoulders.
- IPL heavy workload setting up the Installation binder for the first time, coordinating timely logistics and work requests as needed (at least in the initial phase)
- After the first difficulties in setting up the work requests support from the ESS teams was excellent.



The Installation binder
(only the index though..)