

East Hall under construction - 1962

Planning East Area : Commissioning without beam

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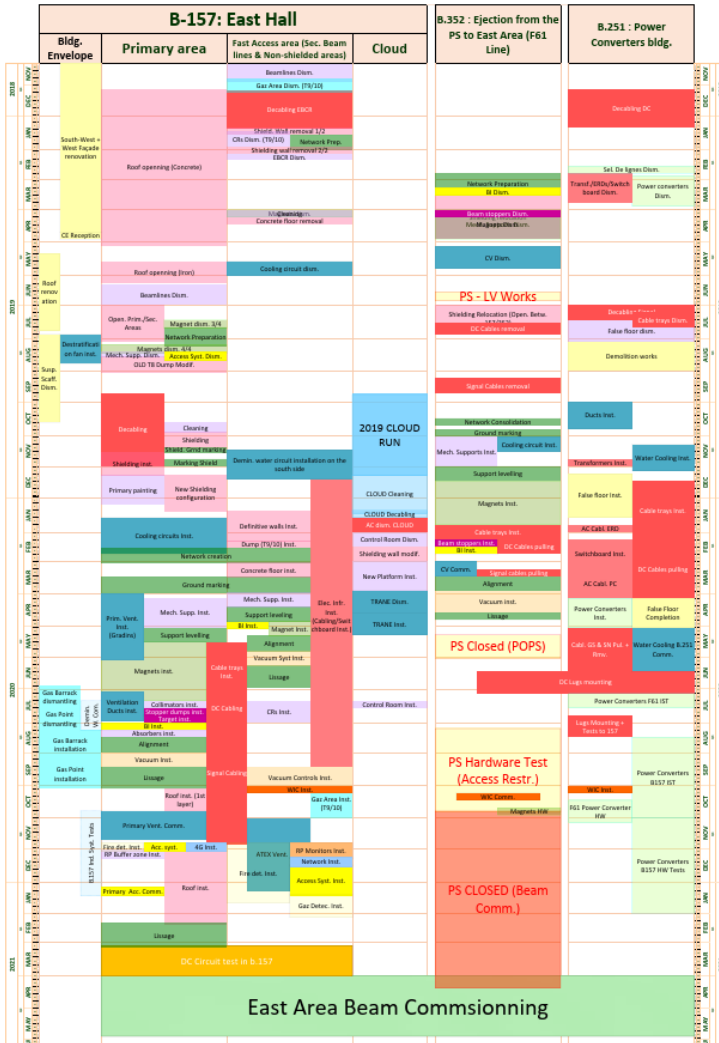
ENGINEERING
DEPARTMENT



EAST AREA RENOVATION



General planning



Important info :

- Bldg. Envelop : Not critical
- Primary Area : Critical path
- Secondary area : ~1month of slack available
- CLOUD Run = High coactivity
- B.352 :
 - No access after Oct. 2020 : No Slack
- B.251 : false floor delay create a High coactivity No slack.
- B.263 : OK

Warning : The WIC installation (in orange) cannot be advance → small time for power converters test

- Gantt : [EN-EA Planning SharePoint](#) (Updated weekly)

How the slides are done

- IST by workpackages (Cf. EARP WBS : <https://edms.cern.ch/document/1730966>)
- Prerequisite = What is needed before doing the tests?
- Needs = What is needed during the tests?
- Tests = What does the tests consist in? (Date used in the planning)
- Proposal with earliest dates possible : To be negotiated / validated with groups

ISTs: Beam instrumentation, BE-BI (EAR 4)

EAR 1	Management
EAR 2	Magnets
EAR 3	Power Converters
EAR 4	Beam instrumentation
EAR 5	Beam Intercepting Devices
EAR 6	Vacuum System
EAR 7	Networks
EAR 8	Controls
EAR 9	Electrical Systems
EAR 10	Cooling and Ventilation
EAR 11	Installation, Transport and handling
EAR 12	Civil Engineering
EAR 13	Radiation Protection
EAR 14	Machine Interlocks
EAR 15	Alarms
EAR 16	Personnel Protection System
EAR 17	Survey
EAR 18	Commissioning and Operation
EAR 19	Safety
EAR 20	Shielding
EAR 21	Collimation
EAR 22	Gaz
EAR 23	Exp. Areas & Layout change
EAR 24	Dismantling

- Prerequisite :
 - Beam instrumentation installed
 - Cabling work completed
- Needs during tests :
 - Electrical power
 - Network available
 - Vacuum (Not for all beam instrument)
- Tests :
 - Reception tests without beams

Tests done in b.352

Beam instrumentation tests : All done by the
08/05/2020

ISTs : Controls, BE-CO (EAR 8)

- Prerequisite :
 - Control HW installed
 - Cabling work completed
- Needs during tests :
 - Electrical power :
 - Air conditioning in the barrack :
 - Ethernet network :
- Tests :
 - Basic reception tests at the end of the installation.
- Test could be done by 12.06.19 → (to be checked with software)

Needed for tests in b.352, not done in b.352

ISTs : Electrical infrastructure, EN-EL (EAR₉)

- Cabling work :
 - Prerequisite :
 - B. 352 (PS), B.157, B.251 : Cabling installation done
 - Needs during tests :
 - Access to both end of cables
 - Tests :
 - Reception at the end of installation
 - Test done by 03.07.2020

Tests done in b.352

ISTs : Electrical infrastructure, EN-EL (EAR9)

- Electrical infrastructure :
 - Prerequisite :
 - B. 352 (PS) : Not applicable
 - B.157 : Transformers, Switchboard, cabling done
 - B.251 : Transformers, Switchboard, cabling done
 - Needs during tests :
 - Electrical power
 - Tests :
 - Reception done through the installation (Transformers reception, HV cabling reception, Cabling reception, ...)
 - Test can be done after previous test → to be confirmed

Needed for tests in b.352, not done in b.352

ISTs : Cooling, EN-CV(EAR 10)

- Piping work :
 - Prerequisite :
 - 352 (PS) : Piping, Skid (157), magnets installed (If possible also in primary area)*
 - 251 : Piping, power converters installed
 - 157 : Piping, magnets installed
 - Needs during tests :
 - Electrical power
 - Cooling station operational (B.355)
 - Tests :
 - X-Ray tests done without specific needs
 - Pressure tests
 - Test done by 12.06.2020

Tests done in b.352

*If magnets in primary area are not installed, commissioning of the circuit will be done with dummy load

ISTs : Beam stoppers, EN-STI (EAR 5)

Beam stoppers

- Prerequisite :
 - Beam stoppers installed
 - Cabling work completed
 - Compressed air network installed
- Needs during tests :
 - Electrical power
 - Network available
 - Vacuum?
 - Compressed air
- Tests :
 - Functional tests (Mouvements)
- Tests Done by 01.05.2020

Tests done in b.352

ISTs : Vacuum, EN-EA(+TE-VSC) (EAR 6)

- Prerequisite :
 - Control rack equipped
 - Vacuum pipes installed and connected
 - Cabling work completed
- Needs during tests :
 - Electrical power
 - Network available
- Tests :
 - Leak tests
- Done by 01.05.2020
- Vacuum system managed by EN-EA except the first part of F61 (Managed completely by TE-VSC)

Tests done in b.352

ISTs : DC Circuit tests, TE-EPC/TE-MSD/....EAR_{2,4,14})

- Prerequisite :
 - PCs installed
 - Cabling work completed in b.251
 - DC cables installed
 - AC installation completed
 - Magnets connected to power converters
- Needs during tests :
 - Electrical power
 - Ethernet network
 - Controls infr. available
 - Converters/magnets cooling
 - WIC
 - Access restricted near magnets
- Tests :
 - DC Circuits (Séparation b.352/b.157)
 - **Done by 04.11.2020**

Tests done in b.352

Thanks for your attention !



EAST AREA RENOVATION

ISTs : Alarms, BE-ICS (EAR15)

- Prerequisite :
 - Control rack equipped
 - HW installed in the zones
 - Cabling work completed
- Needs during tests :
 - Electrical power
 - Network available
- Tests :
 - Reception tests

Not related to b.352

ISTs : Access, BE-ICS (EAR16)

(B.157)

- Prerequisite :
 - Access system installed (Doors, patrol boxes, racks, PAD/MAD, ...)
 - Beam stoppers installed
 - Power converters installed
 - Cabling work completed
- Needs during tests :
 - Electrical power
 - Network available
 - Access to EIS and zones (May include the PS)
- Tests :
 - Reception tests
 - DSO tests

Not related to b.352 (TBC)

ISTs : Targets, EN-STI (EAR 5)

Targets (B.157)

- Prerequisite :
 - Targets stoppers installed
 - Cabling work completed
 - Compressed air network installed
- Needs during tests :
 - Electrical power
 - Network available
 - Compressed air
- Tests :
 - Functional tests (Mouvements)

Not related to b.352

ISTs: Networks, IT-CS (EAR 7)

EAR 1	Management
EAR 2	Magnets
EAR 3	Power Converters
EAR 4	Beam instrumentation
EAR 5	Beam Intercepting Devices
EAR 6	Vacuum System
EAR 7	Networks
EAR 8	Controls
EAR 9	Electrical Systems
EAR 10	Cooling and Ventilation
EAR 11	Installation, Transport and handling
EAR 12	Civil Engineering
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EAR 19	Safety
EAR 20	Shielding
EAR 21	Collimation
EAR 22	Gaz
EAR 23	Exp. Areas & Layout change
EAR 24	Dismantling

- Prerequisite
 - IT installation completed
 - Cabling work completed
- Needs during tests :
 - Electrical power
 - Air conditioning in the barrack
- Tests :
 - Basic reception tests at the end of the installation.

Not related to b.352

Network (B.157) : Installation and reception tests completed on the **07/07/2020** (Not cut in between)

ISTs : Ventilation, EN-CV(EAR 10)

- Primary area new ventilation :
 - Prerequisite :
 - Shielding installed (Air tight envelop installed)
 - Duct and AHU installed
 - Needs during tests :
 - Electrical power
 - Cooling station operational (B.355)
 - Tests :
 - Ventilation system reception
 - Airtightness tests

Not related to b.352

ISTs : RP Monitoring (EAR 13)

Monitors in b.157

- Prerequisite :
 - Monitors installed
 - Cabling work completed
- Needs during tests :
 - Electrical power
- Tests :
 - Reception tests without/with beam

Not related to b.352

ISTs : Collimators, EN-EA (EAR21)

Collimators (b.157)

- Prerequisite :
 - Collimators installed
 - Cabling work completed
 - Control rack equipped
- Needs during tests :
 - Electrical power
 - Network available
- Tests :
 - Functional tests (Mouvements)

Not related to b.352

ISTs : Gaz , EN-EA (EAR22)

Gaz systems (b.157)

- Prerequisite :
 - Piping completed
 - Gaz area installed
 - ATEX ventilation installed
- Needs during tests :
 - Electrical power
 - Network available
 - ATEX ventilation working
- Tests :
 - Leak tests, functional tests, safety reception

Not related to b.352