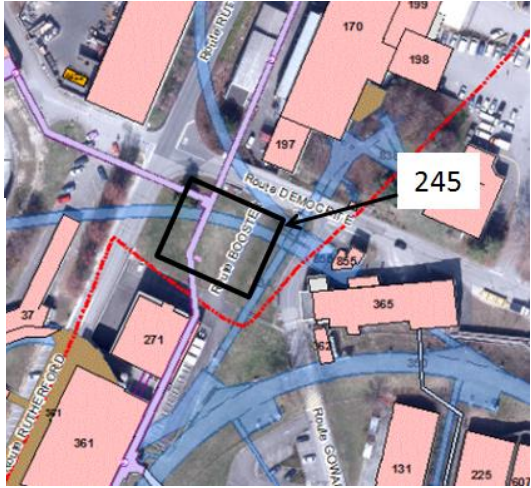
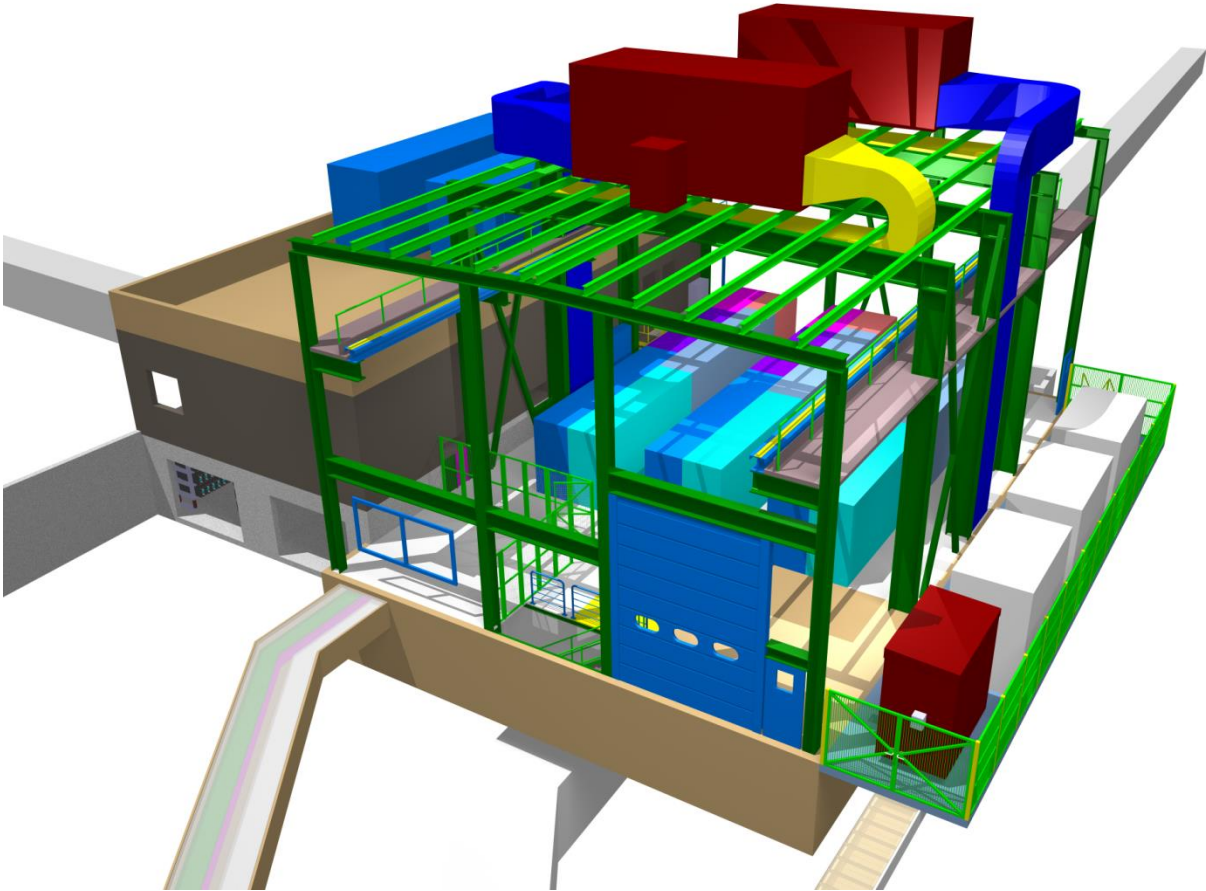


# Building 245 (MPSB)

- *Civil Engineering* -

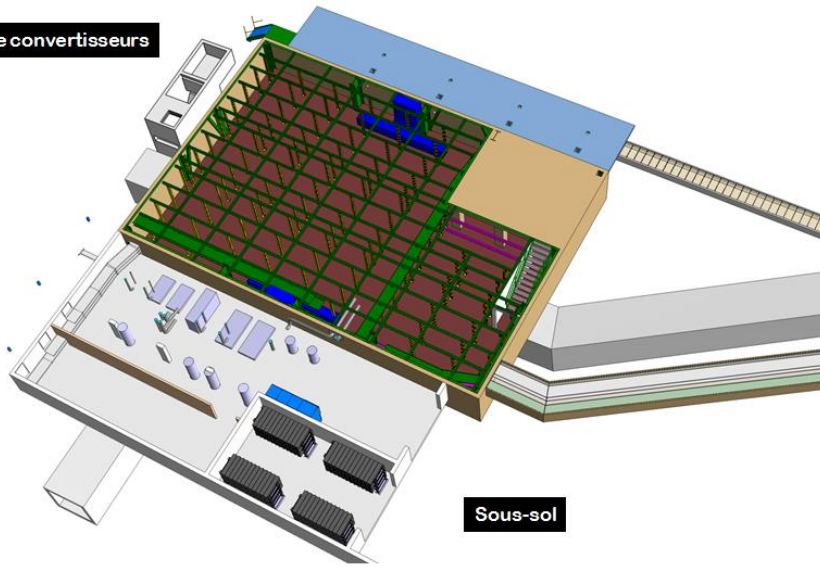
- **Summary**
- Technical Description
- Works schedule
- Status on September 28th 2014
- Cost estimate

# Technical Description



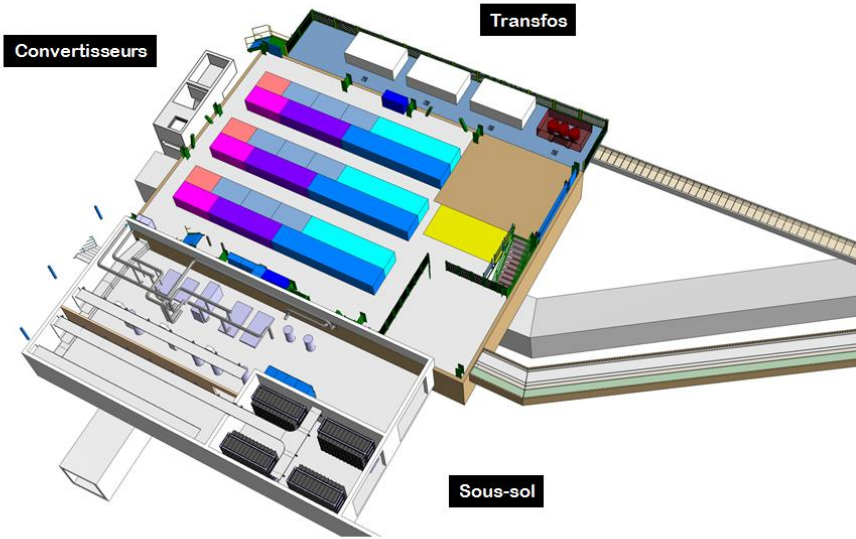
# Integration frozen by users and services

Structure convertisseurs



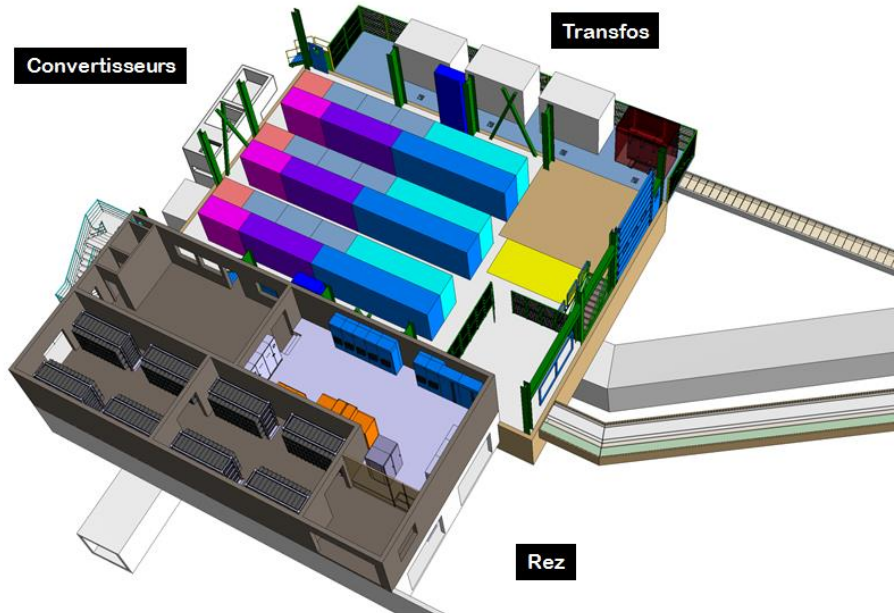
Sous-sol

Convertisseurs



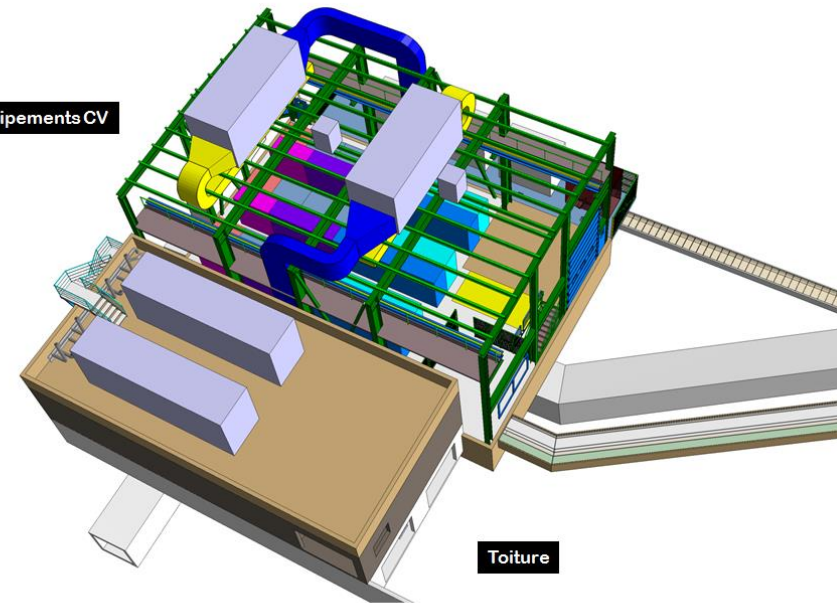
Sous-sol

Convertisseurs



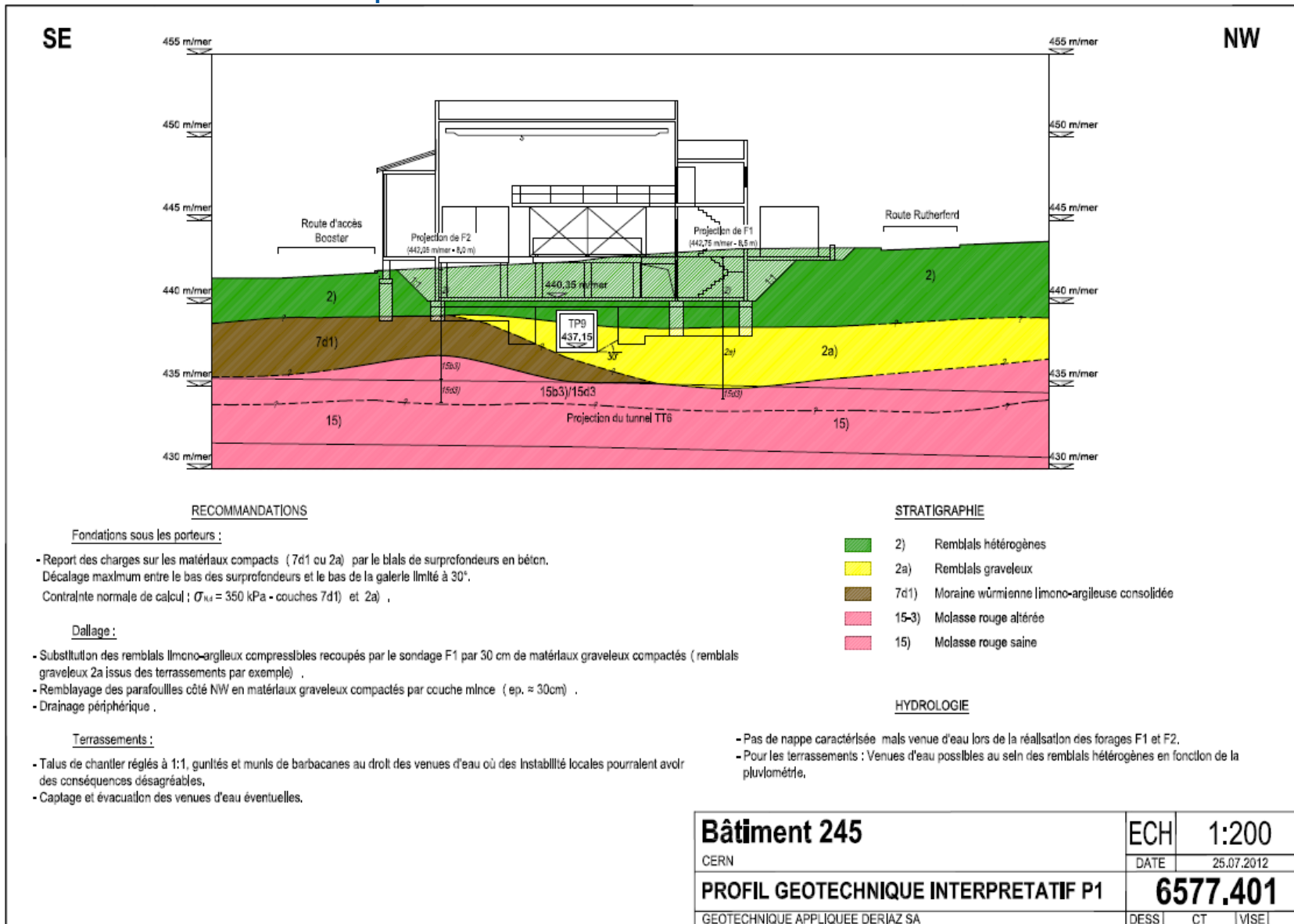
Rez

Equipements CV

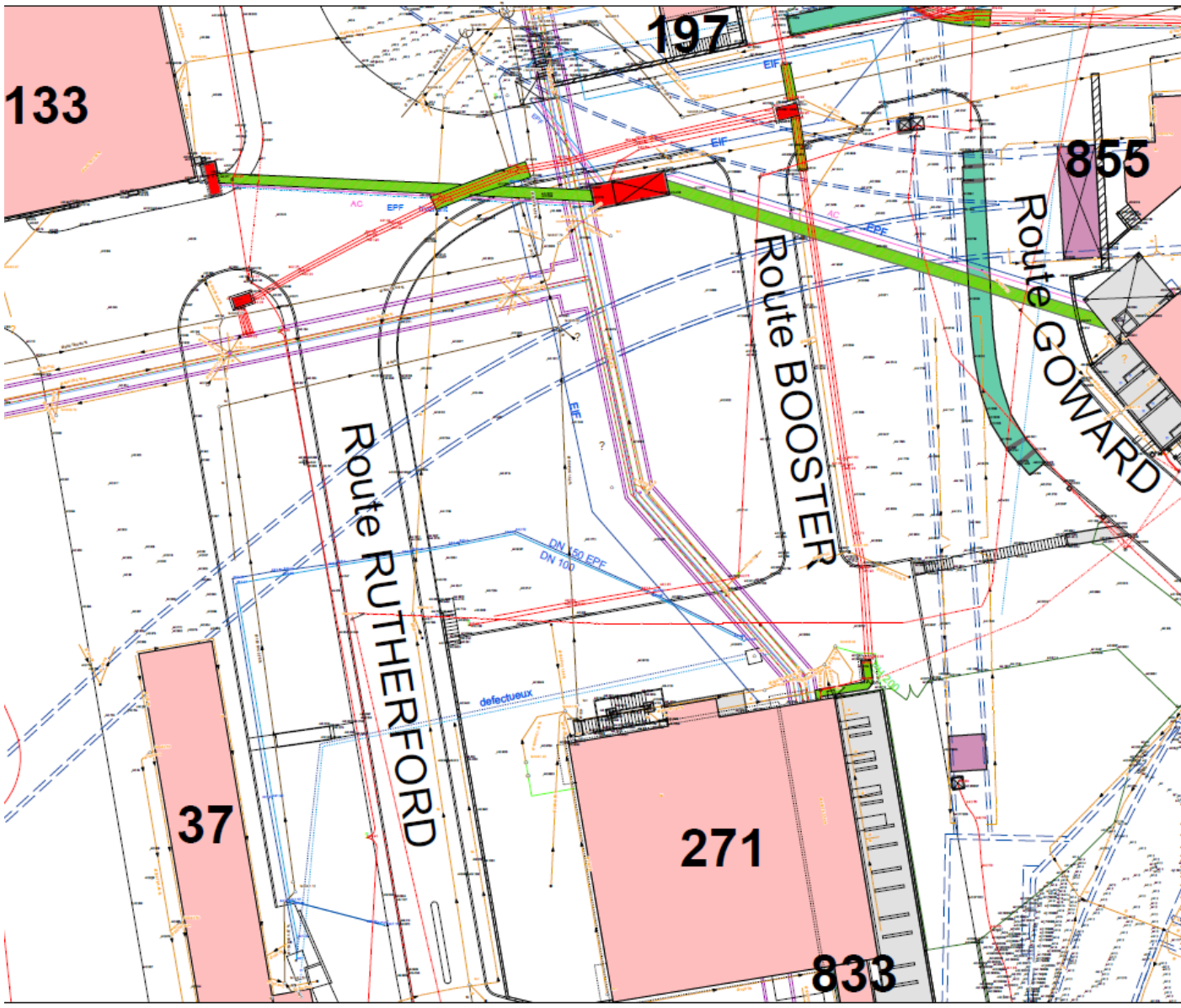


Toiture

# Ground conditions → Deep foundations needed

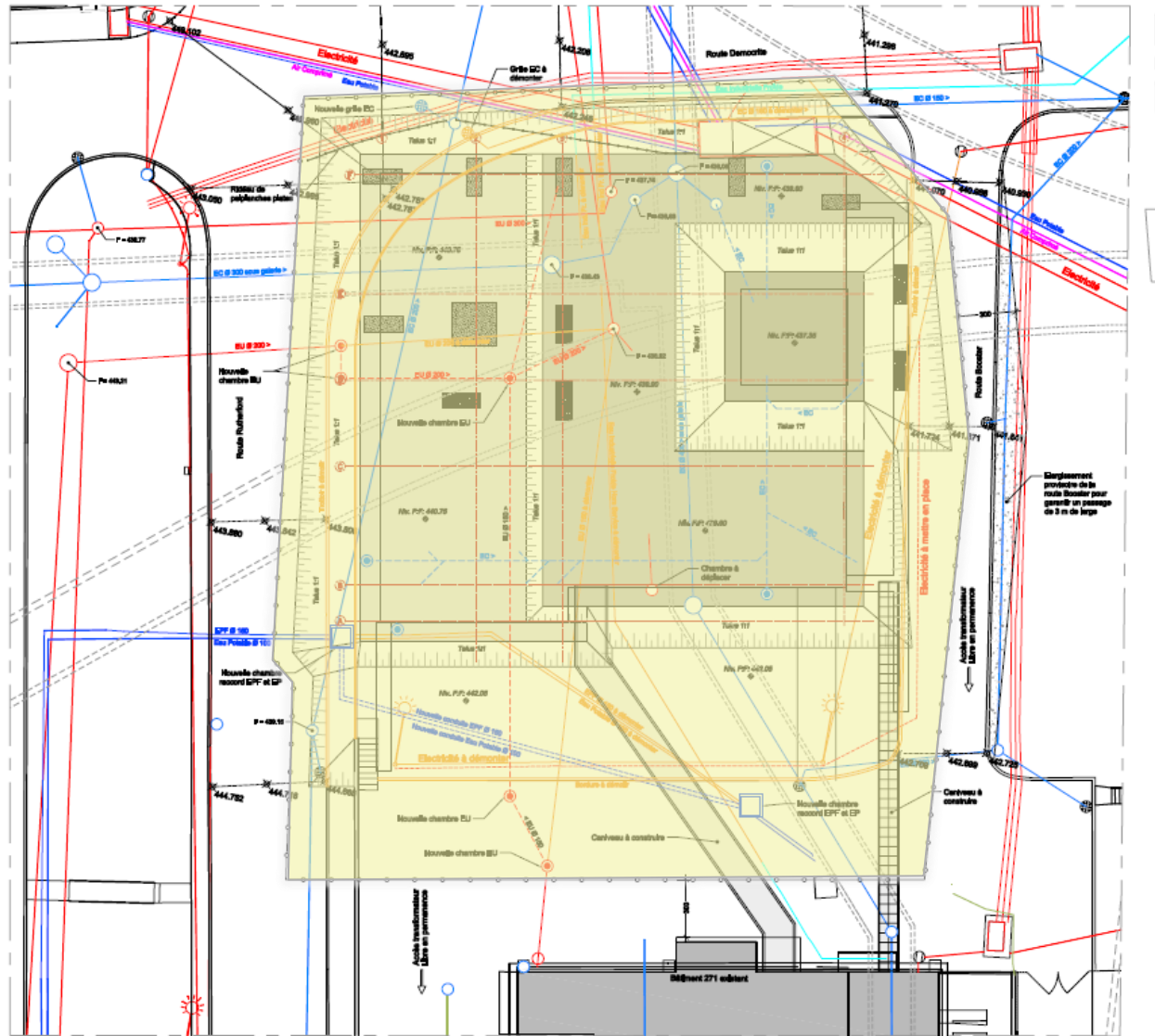


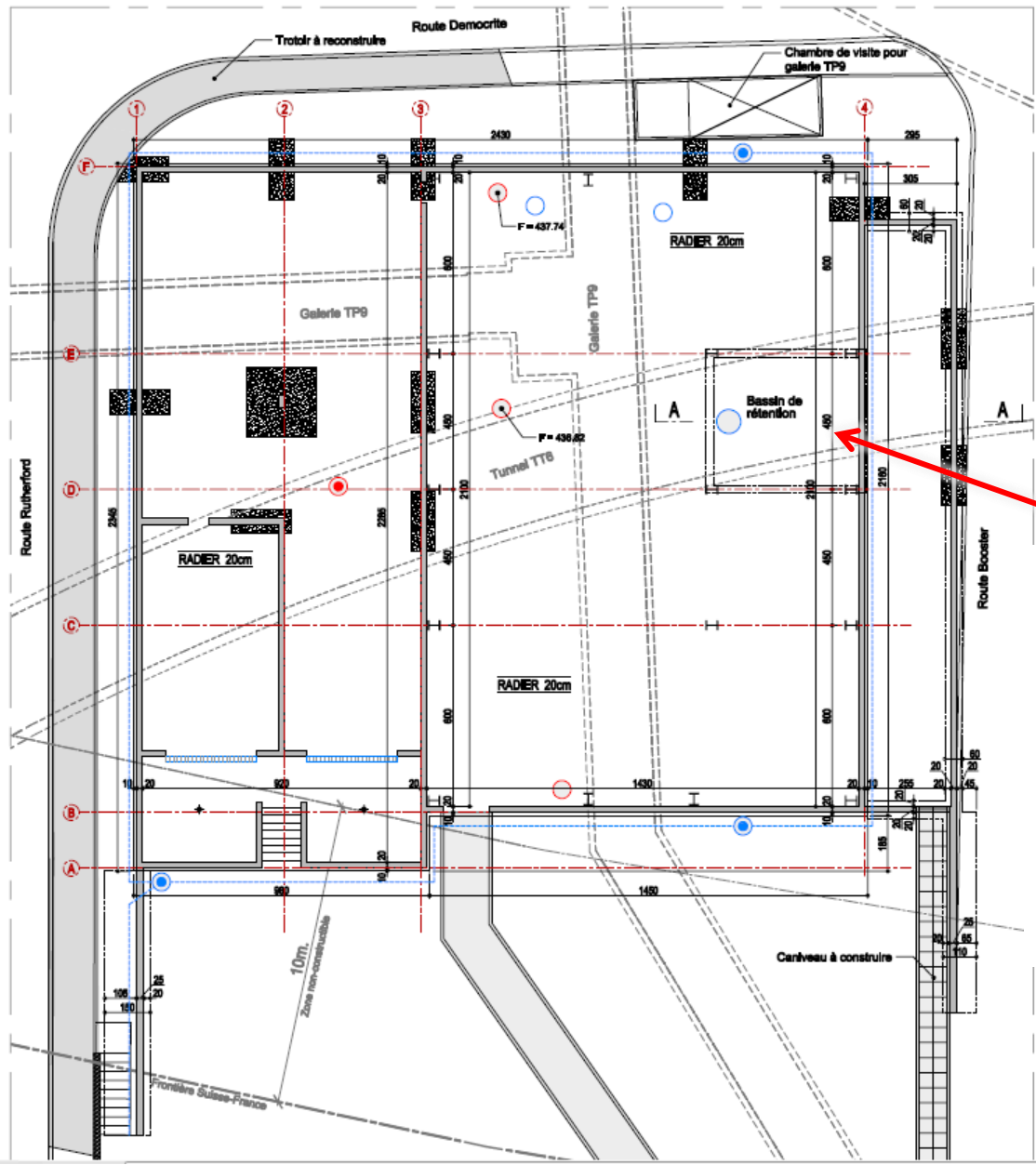
Existing buried networks: CV and EL services, technical gallery TP9, tunnel TT6



# Very limited site area: one line for traffic on roads Rutherford, Democrite and Booster

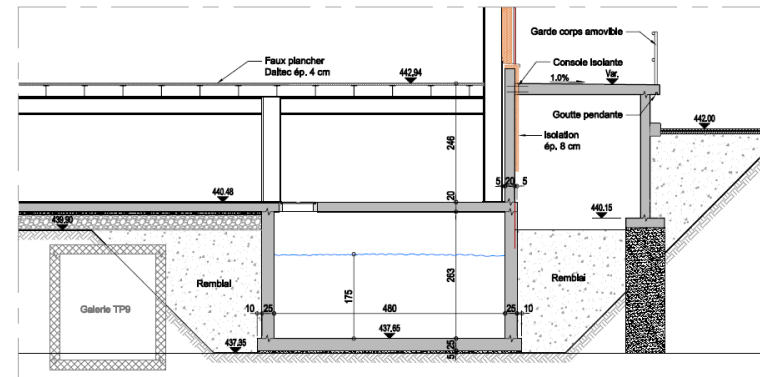
Vue en plan 1:100



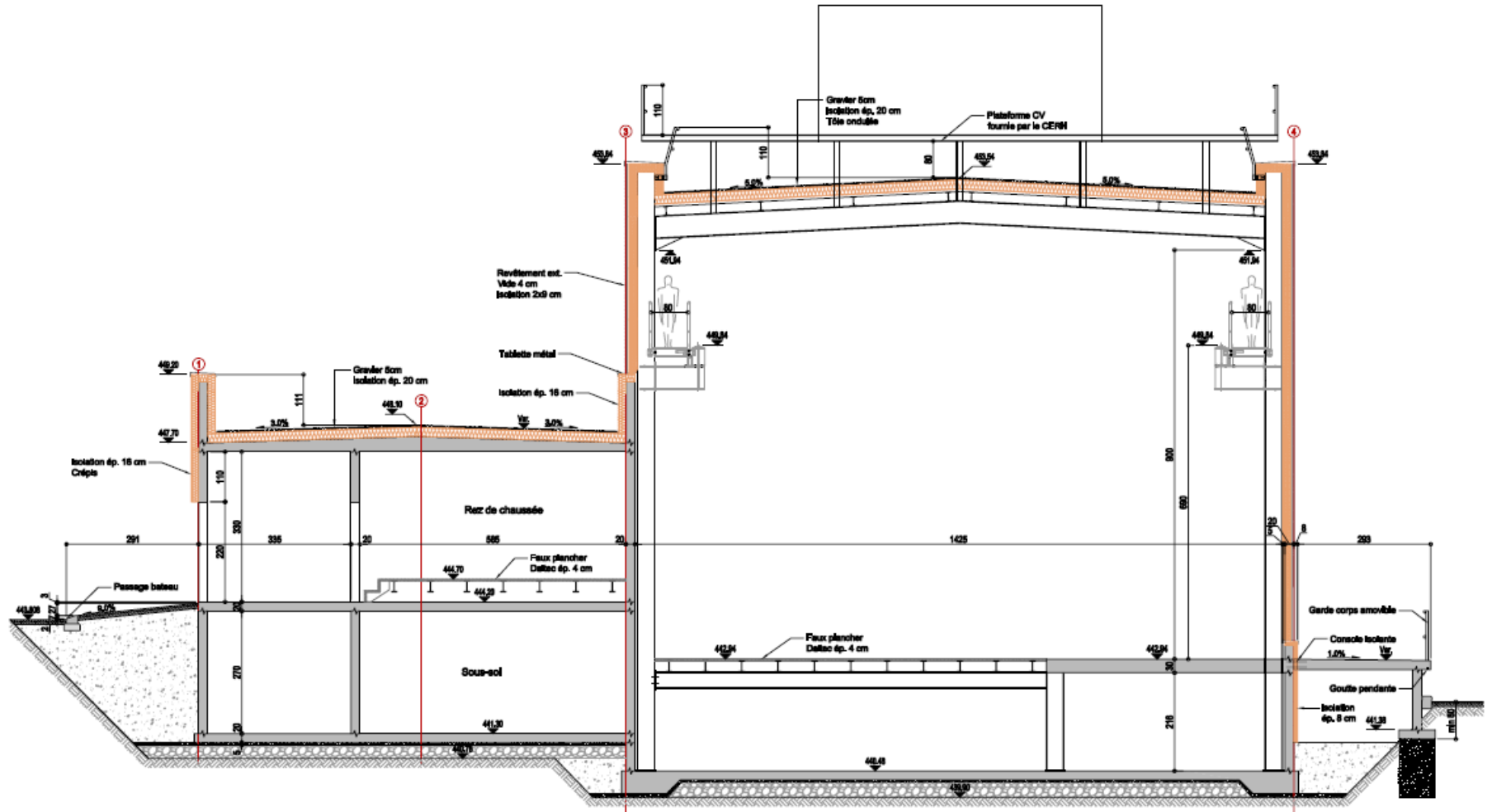


Retention bassin for rain water, required by HSE:

Coupe sur bassin A-A 1:50

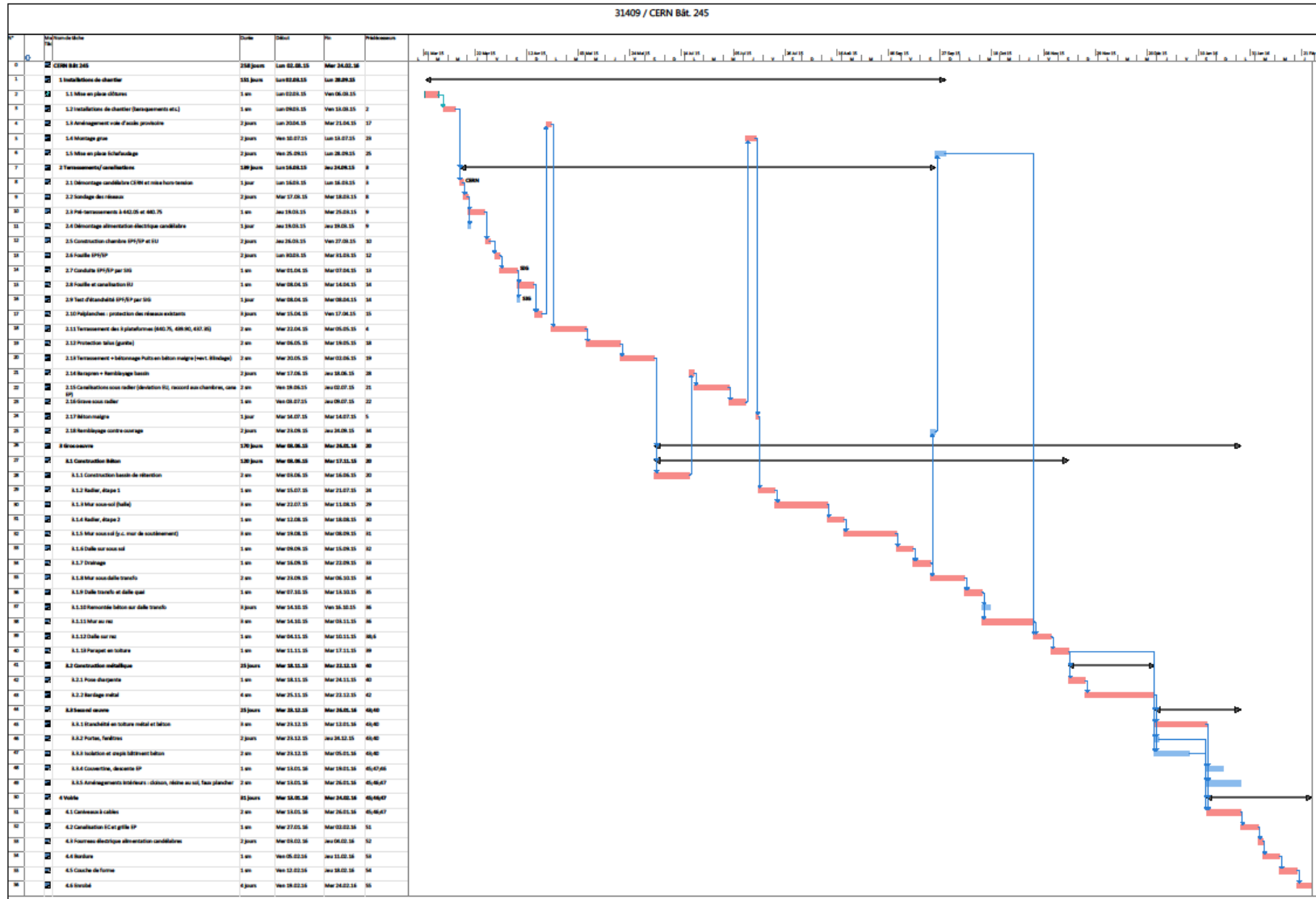


# Cross-Section : Very large equipment for CV on the roof:

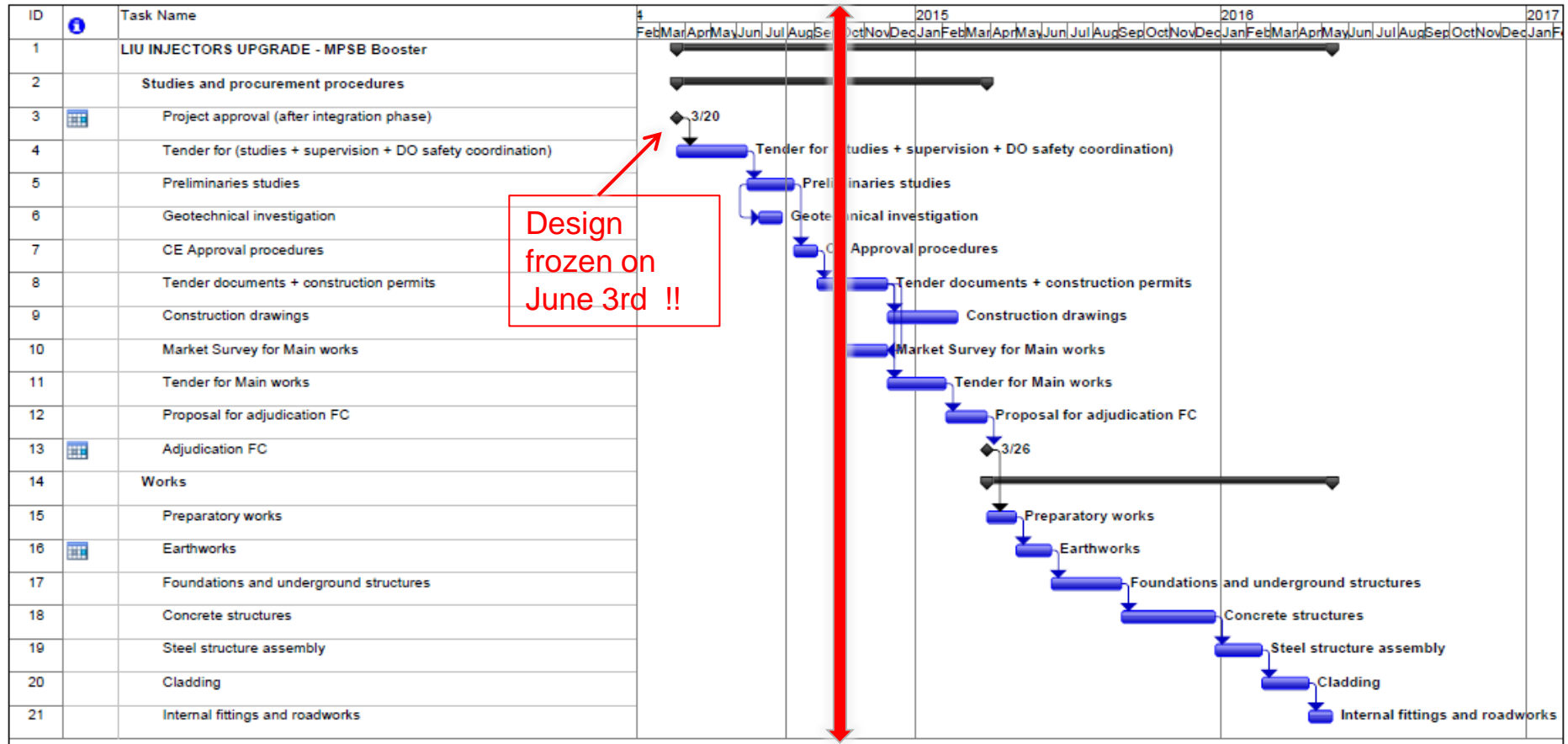




# Works schedule



# Status on September 25<sup>th</sup>



# Cost Estimate for CE

|                                |                             |
|--------------------------------|-----------------------------|
| • Earthworks                   | 510,000                     |
| • Concrete works               | 575,000                     |
| • Steel frame structure        | 500,000                     |
| • Cladding & Roofing           | 446,250                     |
| • Road works & landscaping     | 238,750                     |
| • Studies & supervision        | 227,000                     |
| • <u>Total</u>                 | <u>2,497,000</u>            |
| • Contingency CE (15%)         | 374,550                     |
| • <b><u>TOTAL (+/-20%)</u></b> | <b><u>2,871,550 CHF</u></b> |

Nota → cost estimate in january 2014:  
2,827,625 (TE/EPC) + 677,745 (EN/CV) = **3,505,370 chf**

- **Thank you for your attention**
  - **Any question?**