FUTURE CIRCULAR COLLIDER
Innovation Study

HIGHWAY ACCESS STUDY RESULTS

FCC WEEK
London
4-9 June 2023

Pierre Boillon (Cerema)
Patrycja Laidouni (CERN)

Road accesses and highway connections

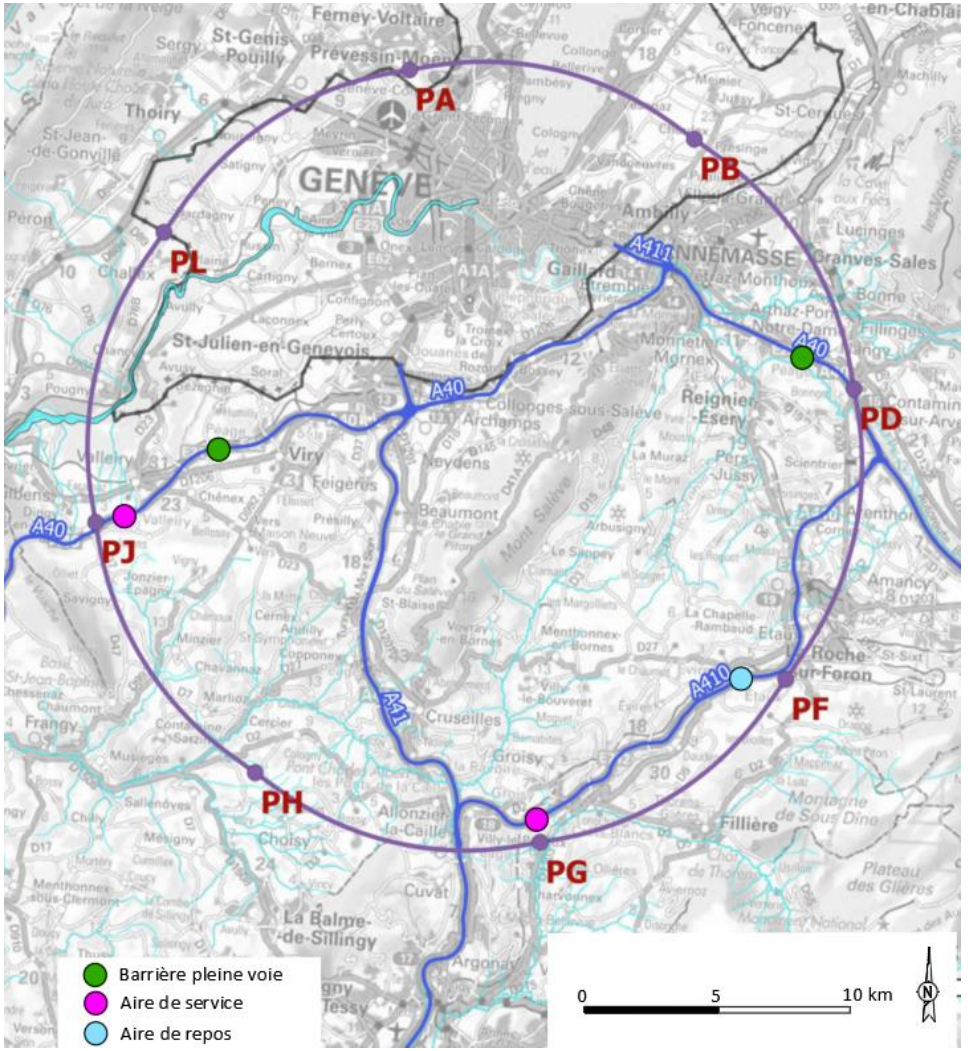
Road accesses :

- **8 surface sites**
- **Analysed at 3 territorial scales**

Highway connections :

- **4 possible connections**
- **PD Nangy**
- **PF Éteaux**
- **PG Groisy**
- **PJ Dingy-en-Vuache**

Reminder : technical studies only, no commitement of the States

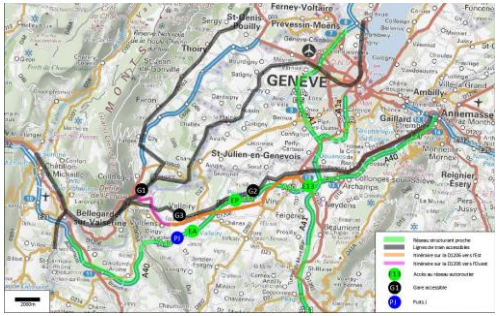


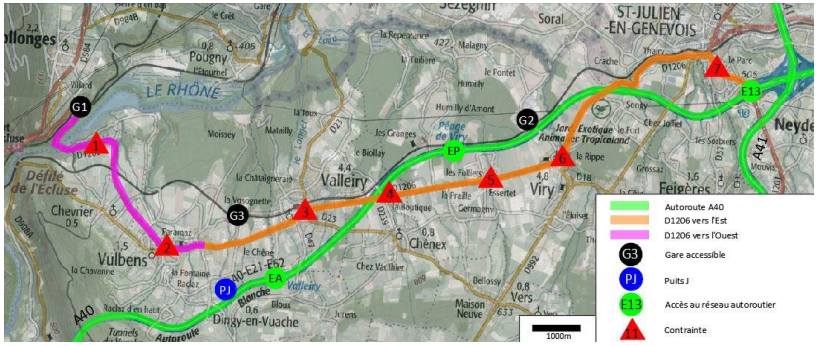
The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754.
The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

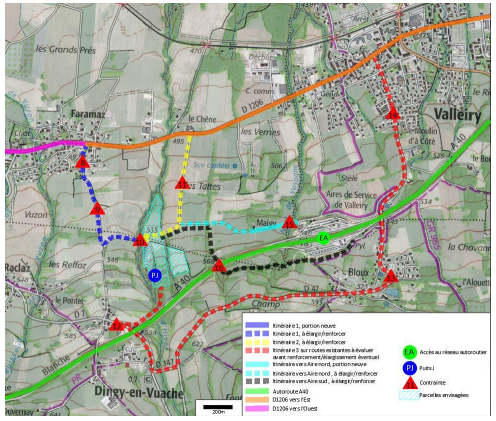
Road accesses : analysis at 3 scales

3 scales :

- **Large-scale analysis towards the structural networks: railway or motorway**
- **Analysis of road accesses (often departmental) from the site to a structuring network: highlighting of constraints (slopes, widths, bends, village crossings, etc.)**
- **Analysis of the access to the plot of land when it has to be created**







The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754.
The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

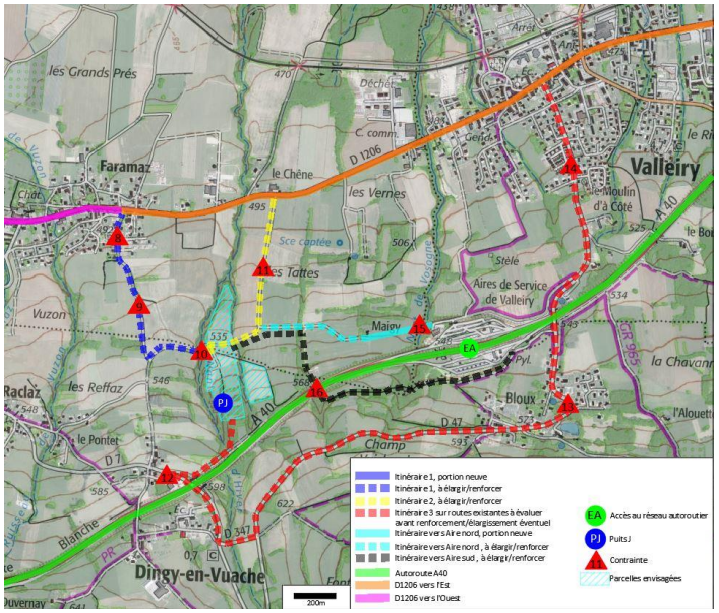
Road accesses : hypothesis

Access study at the feasibility study stage

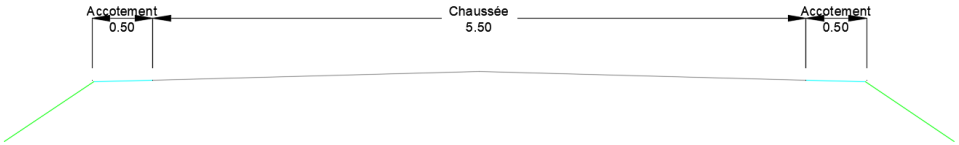
Are not known :
- **Destinations of excavated material**
- **Origin of the construction materials**

The study therefore considers all possibilities and constraints

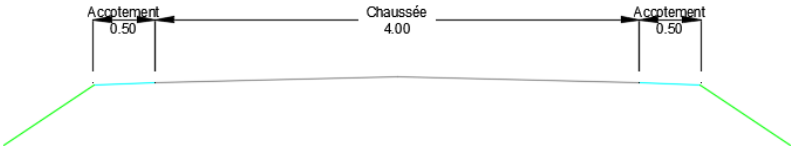
In due course, more detailed studies will have to be carried out with the various road managers (State, departmental councils, municipalities) to:
- **Confirm the proposed dimensions,**
- **Specify the necessary reinforcement of existing networks (roadways structures and bridges)**



Hypothesis for enlargements



Hypothesis for plot connection

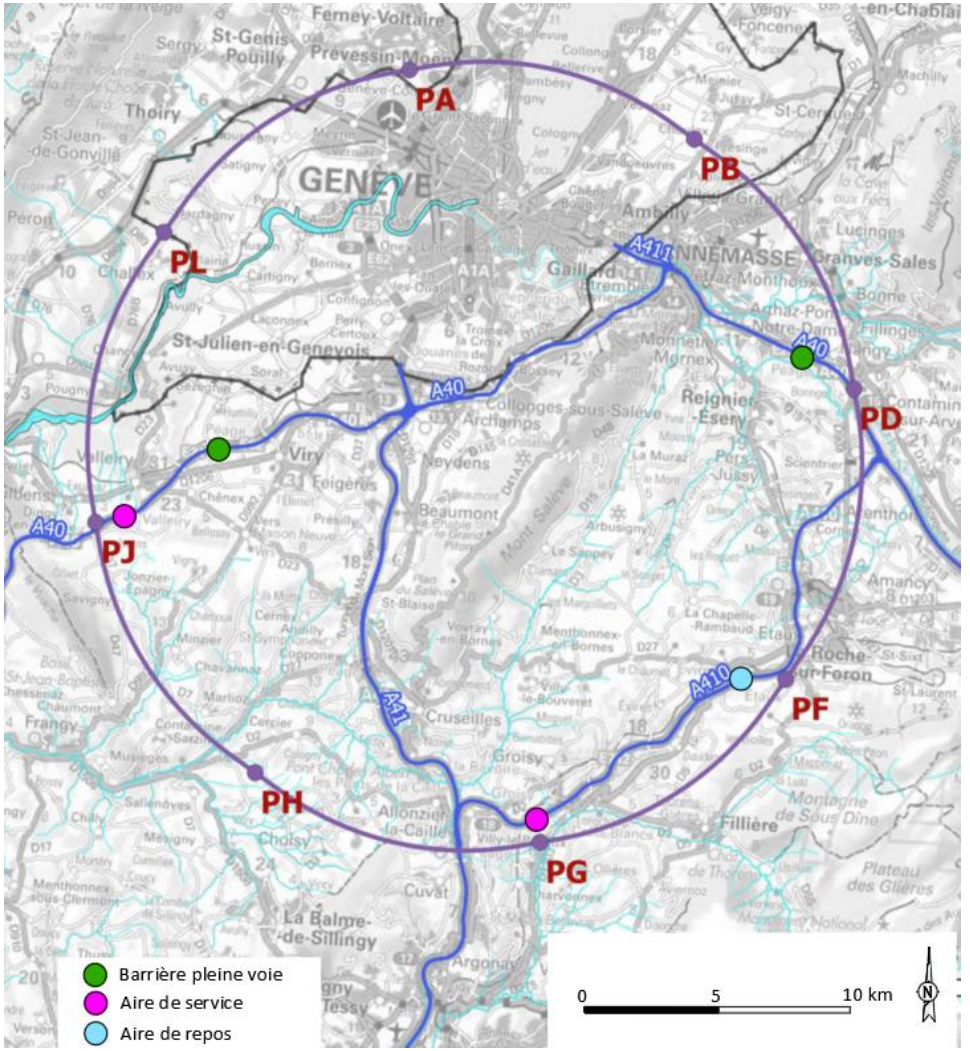


The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754. The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

Feasibility of highway connections

Direct access to highways:

- **During the construction phase**
- **Usually prohibited**
- **General interest justification: to limit impacts, ensure security**
- **Limitation of the inconvenience caused by the transport on local roads or through congested areas (noise, traffic, safety, damage, etc.)**
- **Use of service areas or rest areas (safety for the users)**
- **The time limited accesses - intended to be dismantled in time and the previous installations restored**

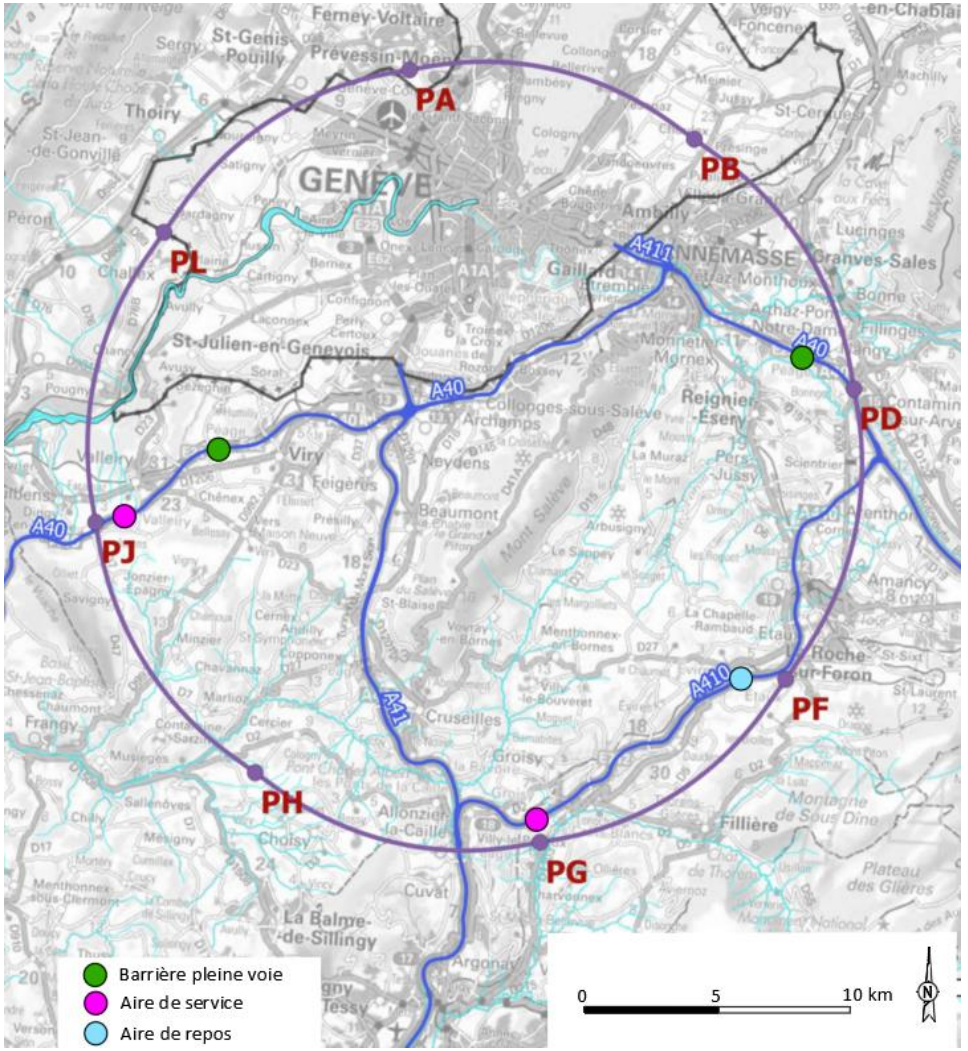


The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754. The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

Feasibility of highway connections

Specific report has been prepared:

- **Presenting the requirements and constraints of the stakeholders:**
  - **Security,**
  - **Access control in accordance to the motorway status,**
  - **Financial conditions (toll applied for the use of the infrastructure)**
- **Presented to the conceding authority (DGITM Direction Générale des Infrastructures, des Transports et des Mobilités)**
- **Validation on the principle (4 sites)**
- **Detailed connection projects to be carried out once the decision to build the FCC will be validated**



The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754. The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

PA : Ferney-Voltaire

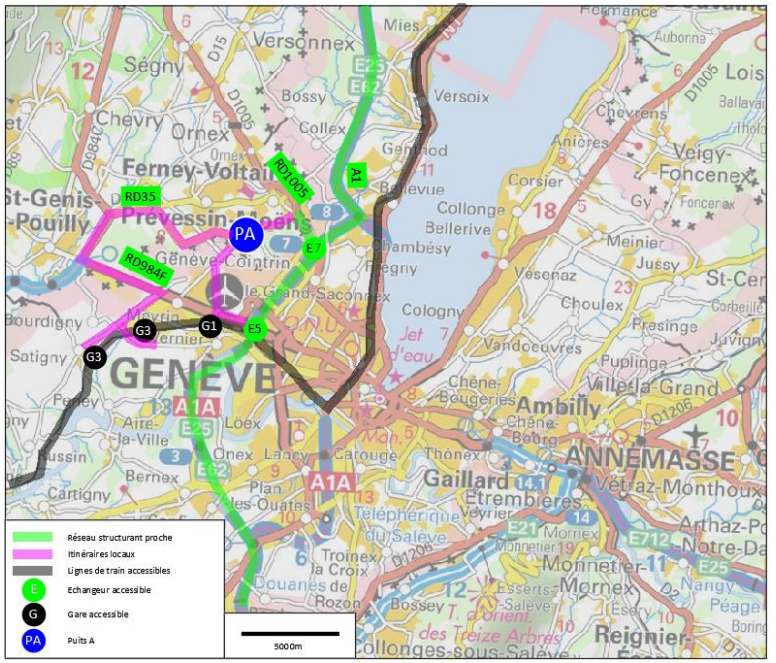
Peri-urban environment

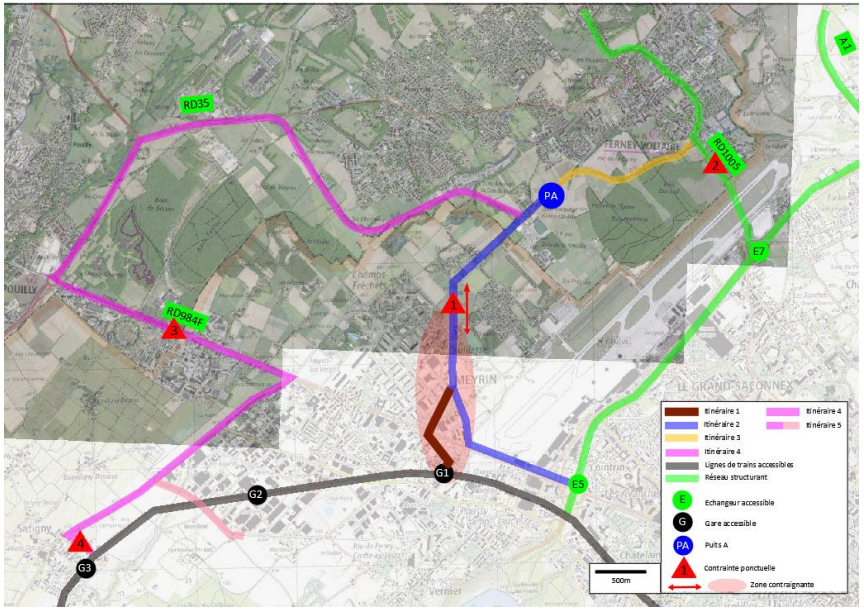
Well served by infrastructure (railways, highway)

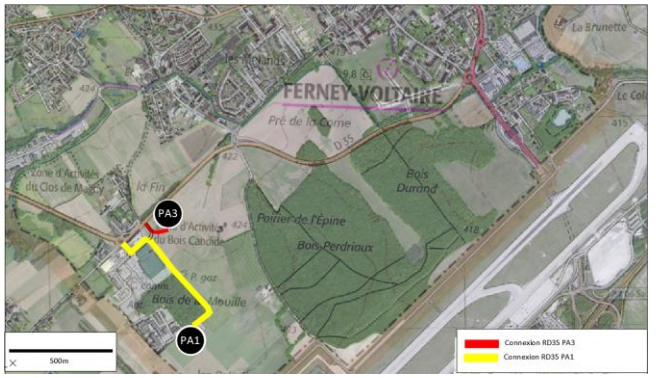
Strong urban constraints (populated areas)

Cross-border issues to be managed with States

Site directly at RD35







The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754. The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

PB : Choulex

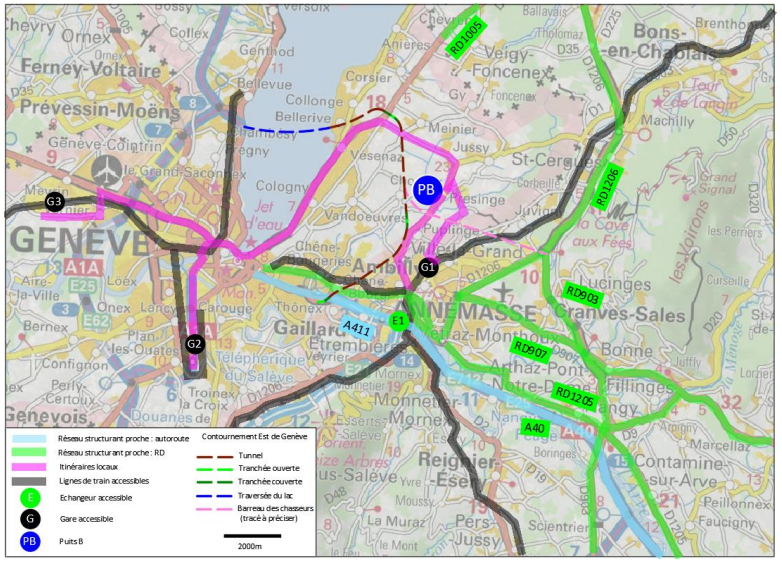
Peri-urban environment, strong constraints

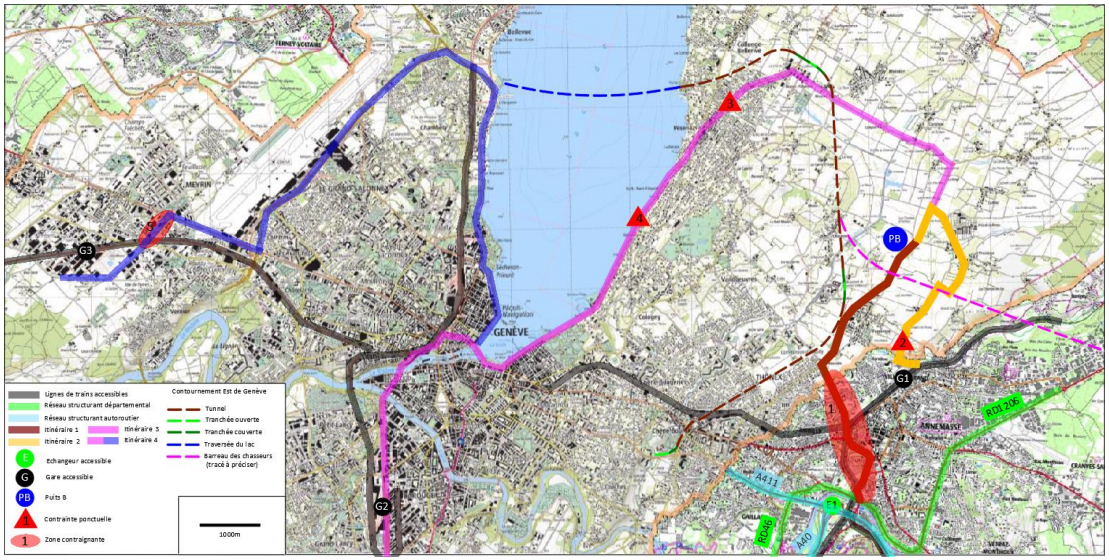
Few infrastructure nearby

Technical options studied

Cross-border issues to be managed with States

Site next to the road but precise route to discuss





The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754. The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

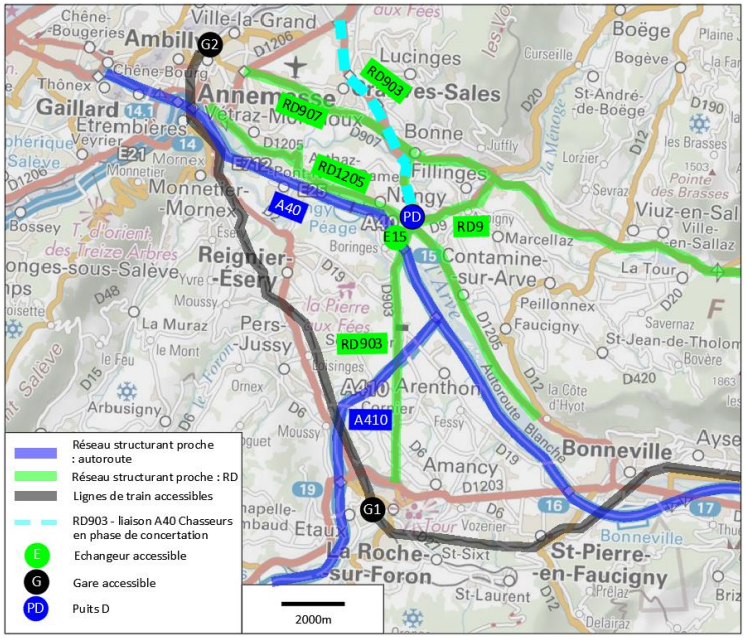
PD : Nangy

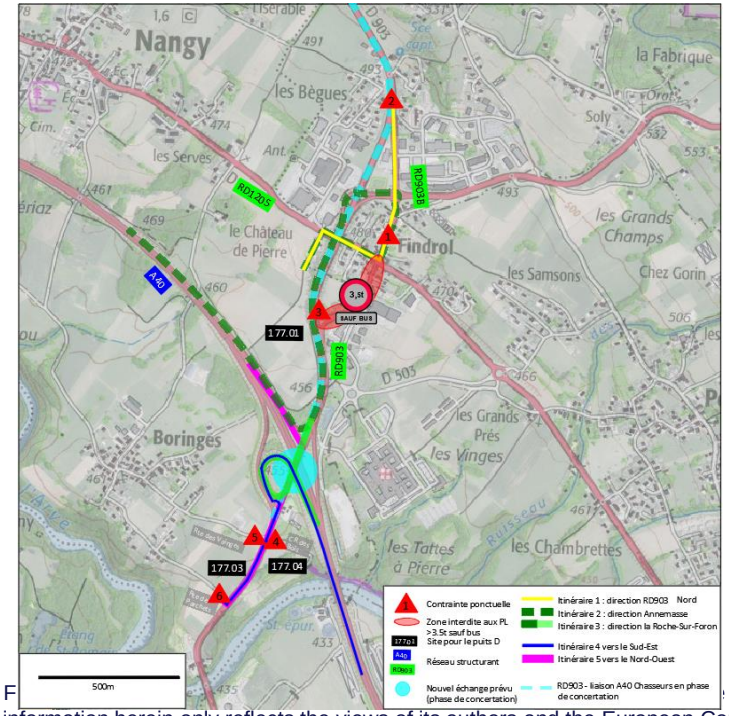
Peri-urban environment

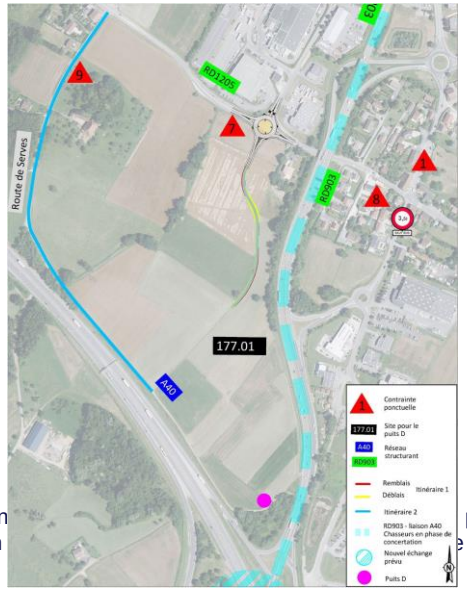
Road infrastructure nearby, railways further

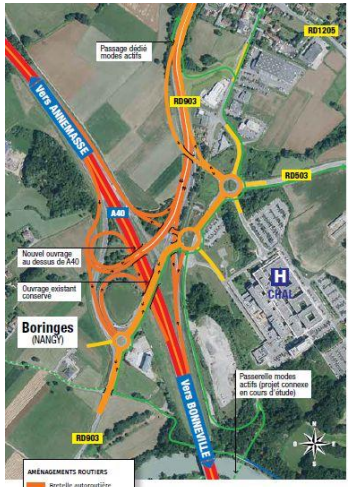
Interface with a highway project (Conseil départemental 74)

Site directly at RD1205









The F[illegible] European [illegible] pro
The information herein only reflects the views of its authors and the European Commission [illegible] of

PD : highway connexion

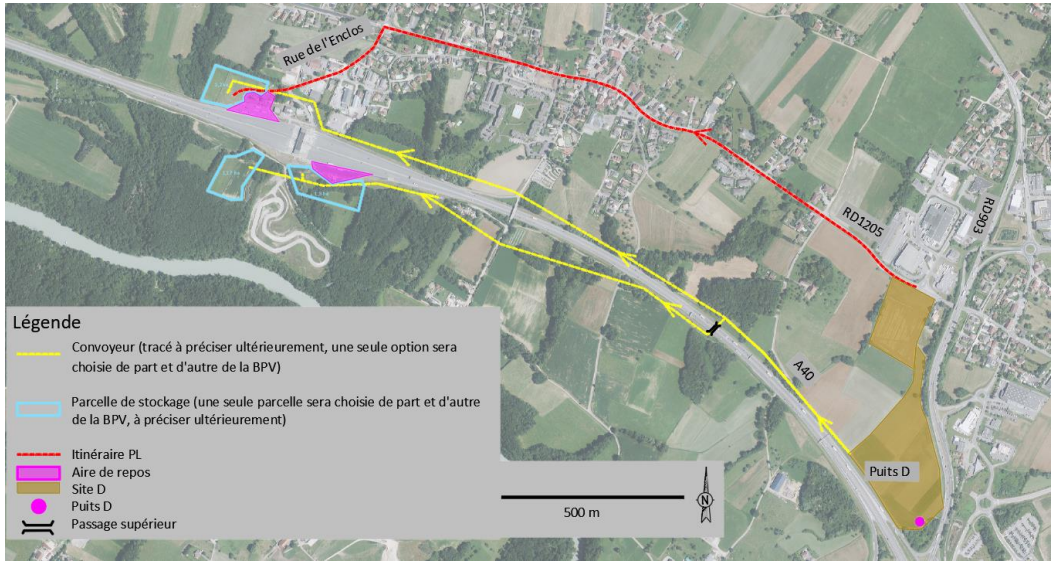
Toll gate not far from the site (1900 m)

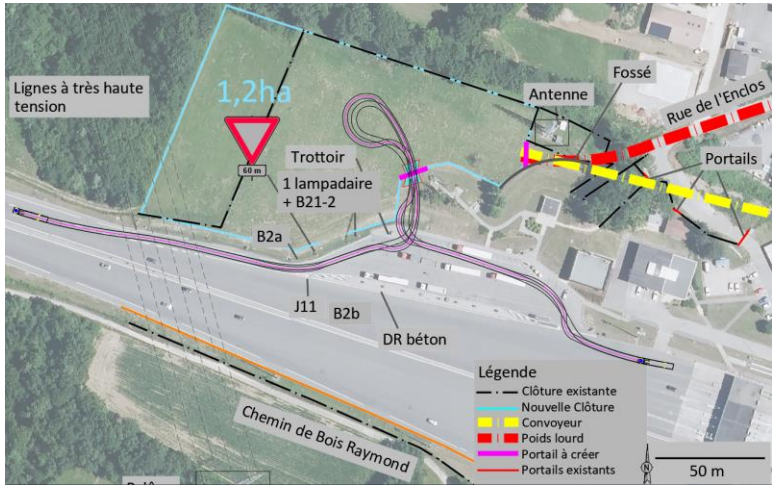
Possible North and South access

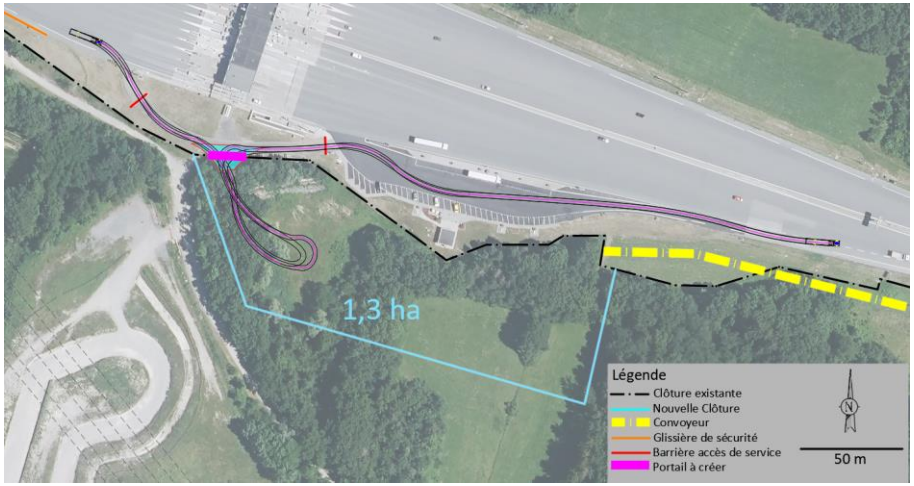
Secondary loading areas to be planned

Vigilance :

- **Conveyor routing is only a principle**
- **Road access (from site to highway) is complex**







The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754.
The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

PF : Éteaux / La Roche-sur-Foron

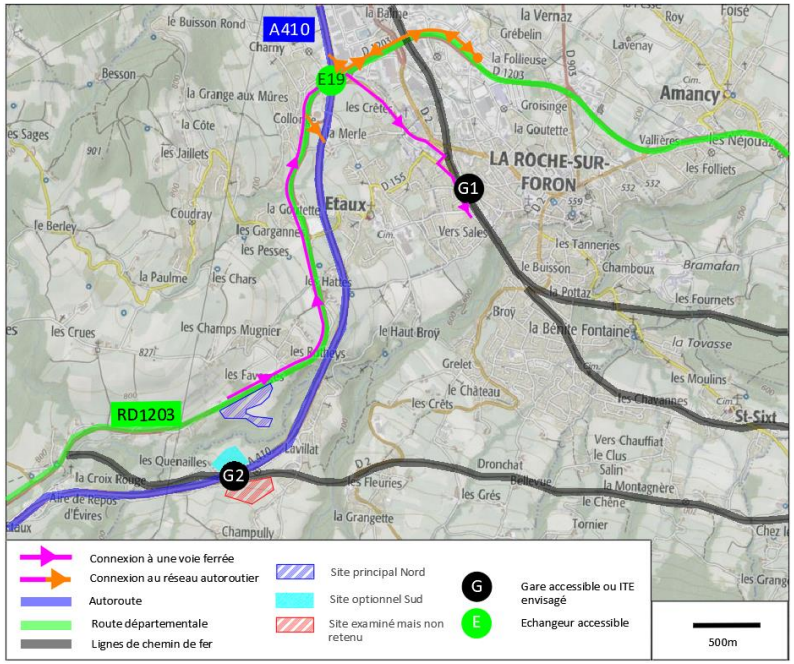
Rural environment

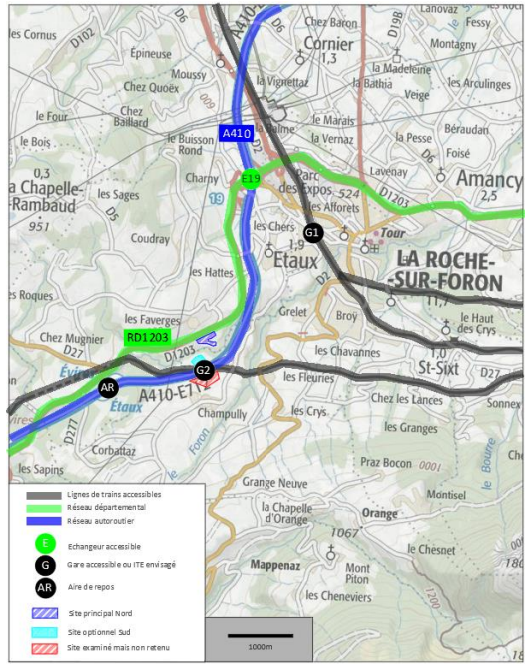
Access to highway not far

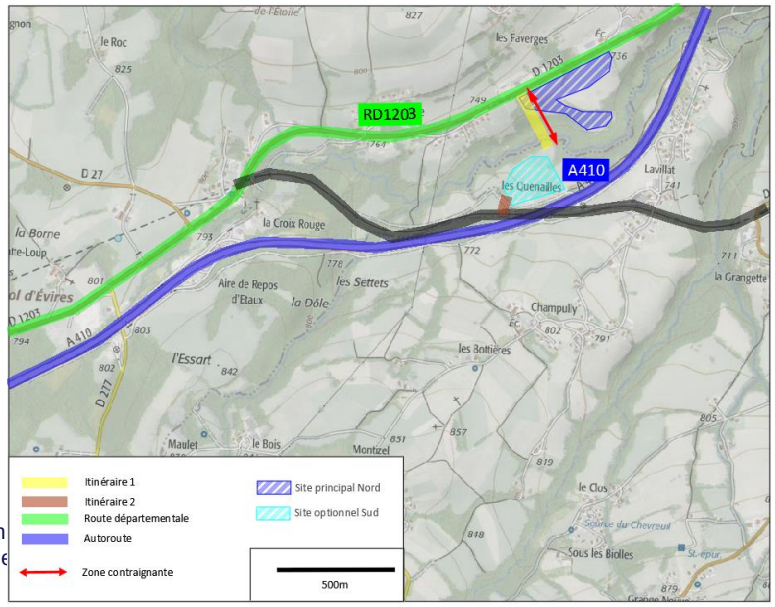
Existing railways connection further (G1),
possible rail connection under consideration (G2)

Site :

- **At the RD1203 for the Northern plot**
- **Southern plot difficult to serve**







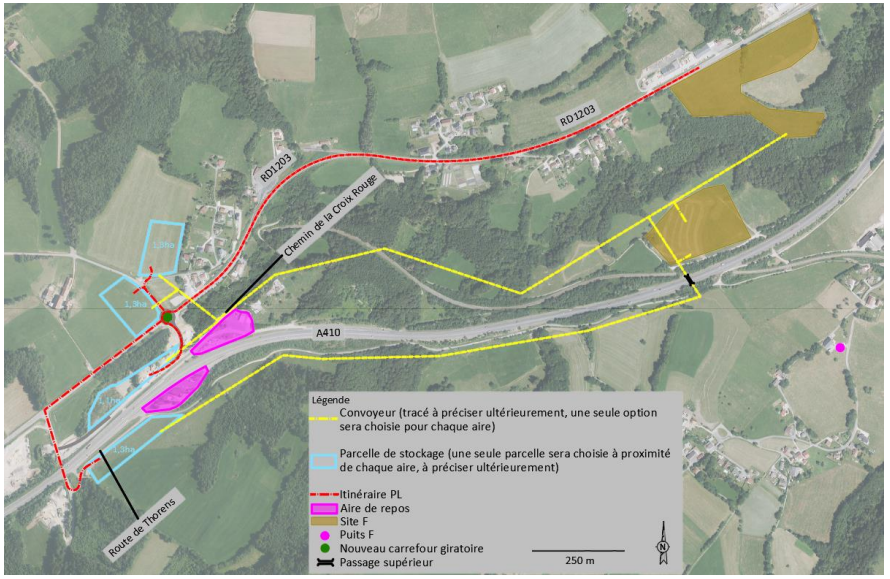
The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon
The information herein only reflects the views of its authors and the European Commission is not responsible

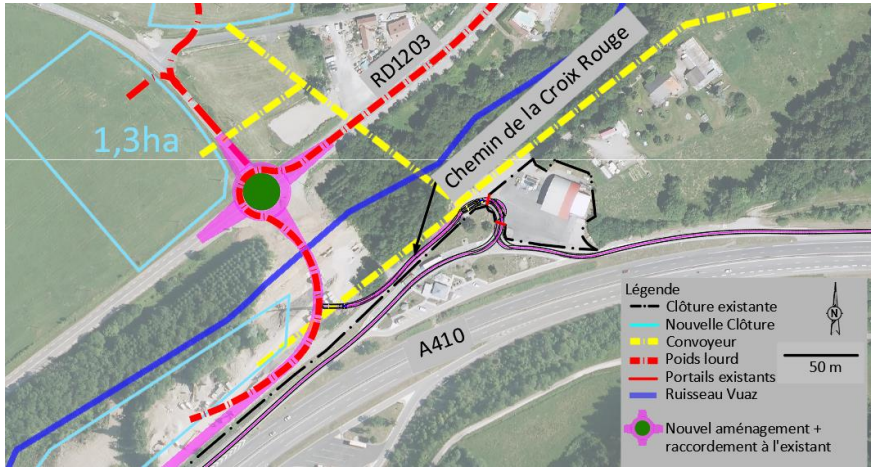
PF : highway connexion

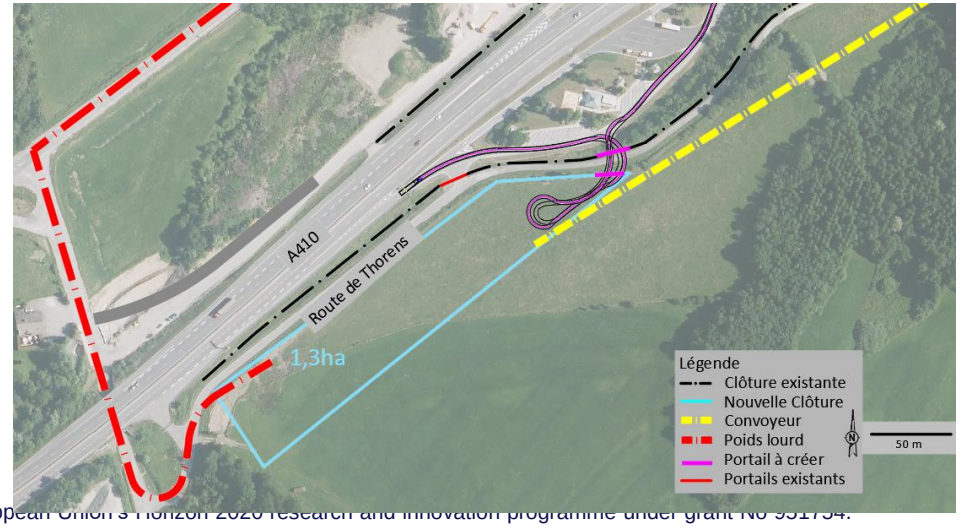
Highway rest area not far (1300m)

Possible North and South access

Secondary loading areas to be planned







The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754.
The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

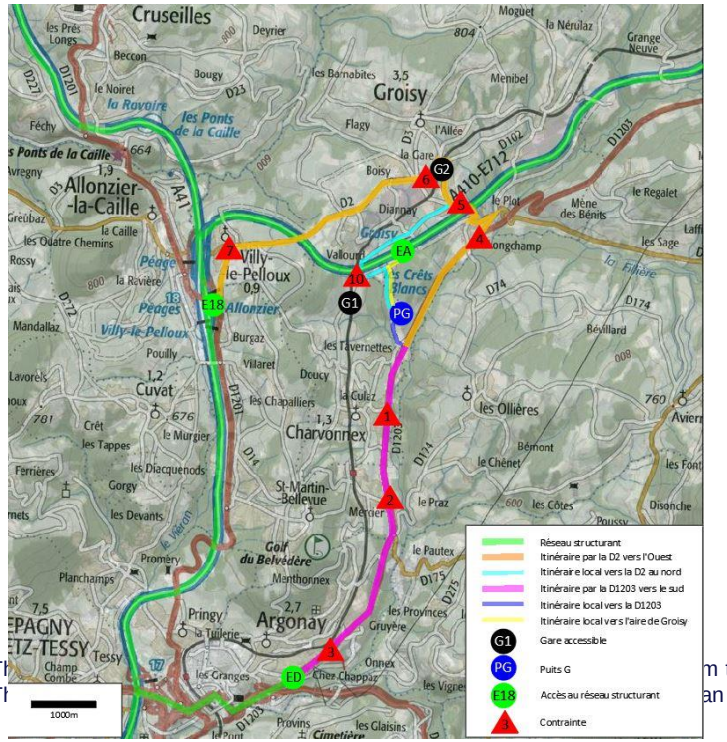
PG : Charvonnex / Groisy

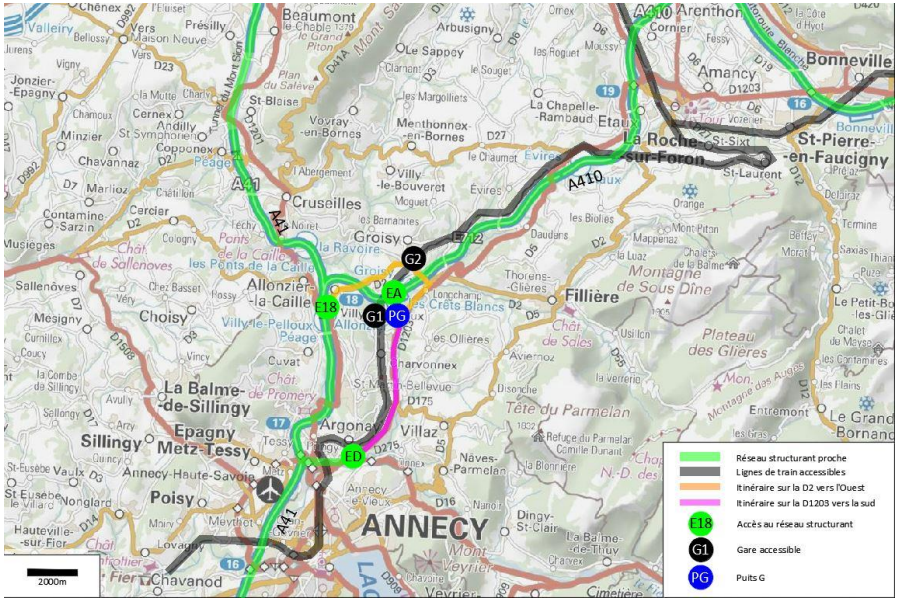
Rural environment

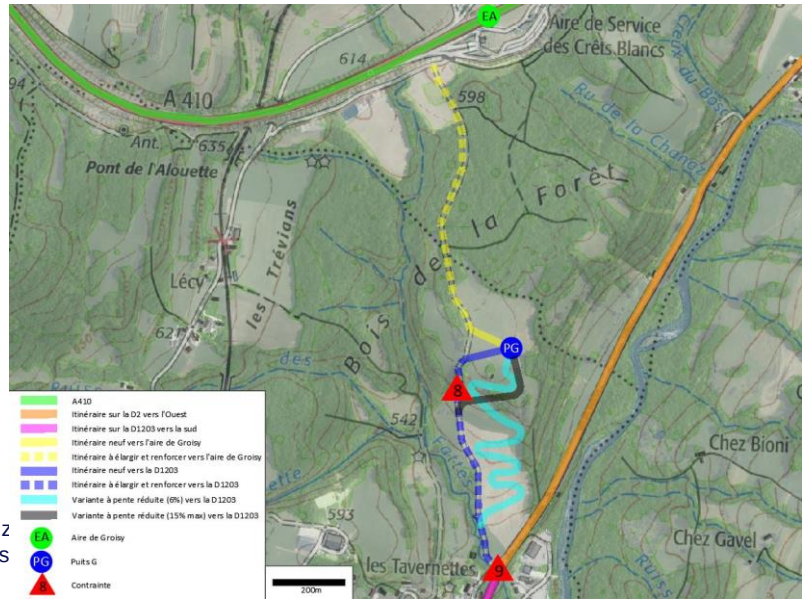
- Existing access to highway not simple
- Existing railways connection quite near (G2)**, possible rail connections under consideration** (G1)

Road infrastructure nearby via the northern path:

- **100 m to create**
- **750 m to enlarge/reinforce**







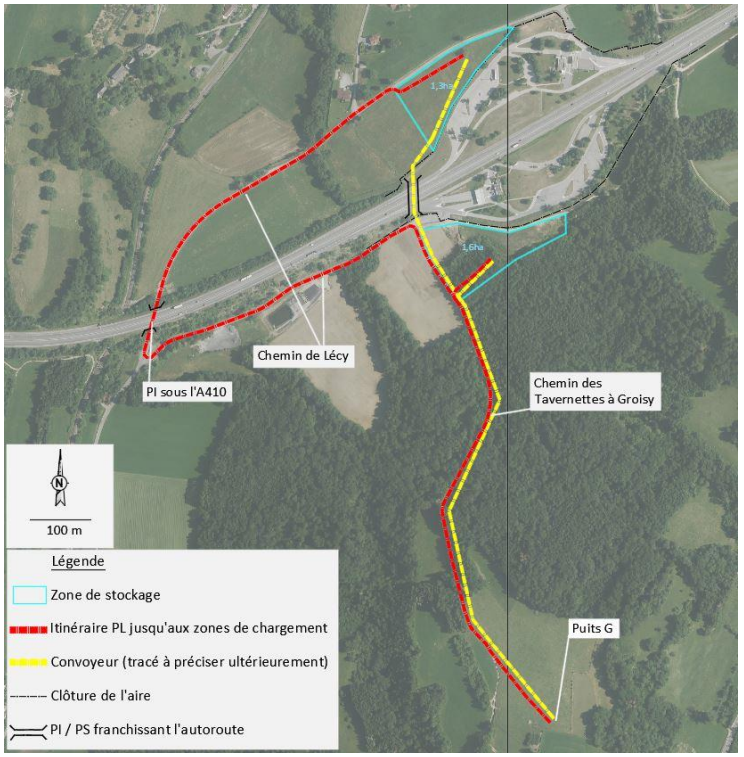
Th m the European Union's Horiz
Th an Commission is not respons

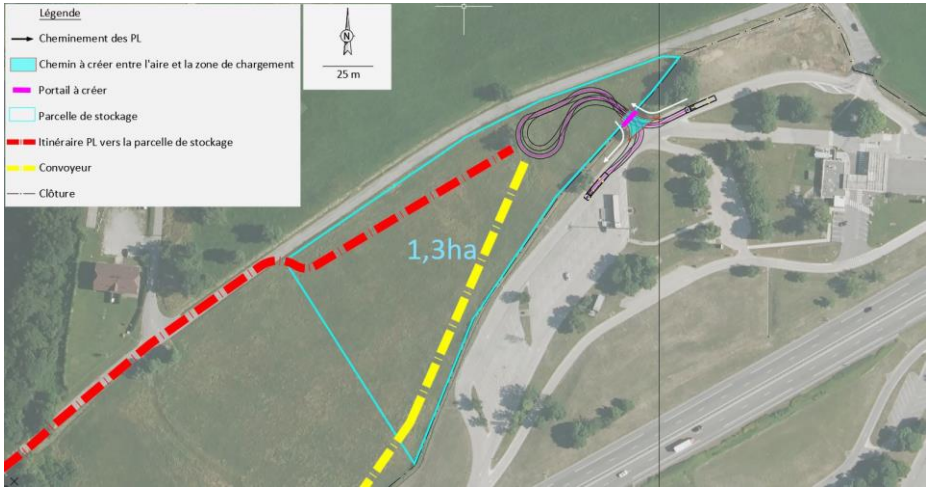
PG : highway connexion

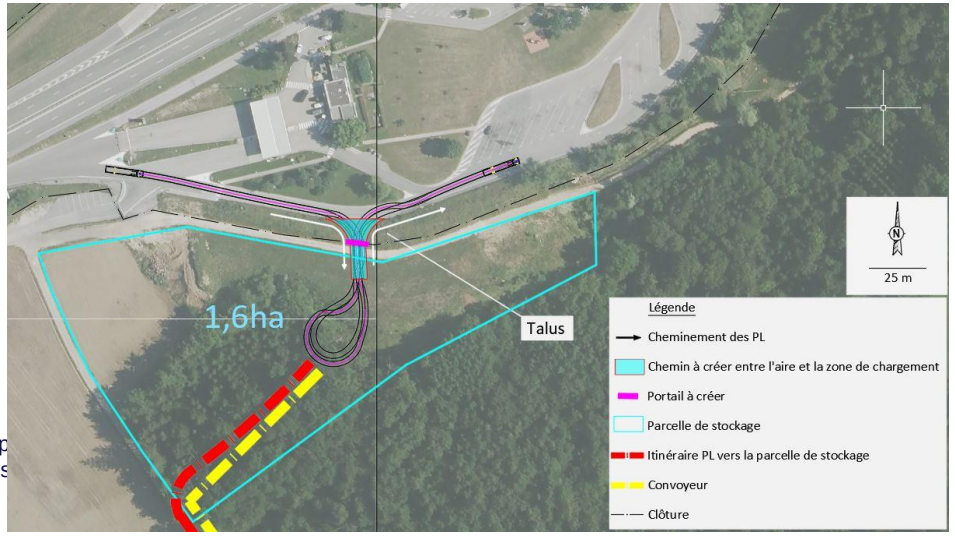
Highway service area not far (800m)

Possible North and South access

Secondary loading areas to be planned







The Future Circular Collider Innovation Study (FCCIS) receives funding from the Europ
The information herein only reflects the views of its authors and the European Commiss

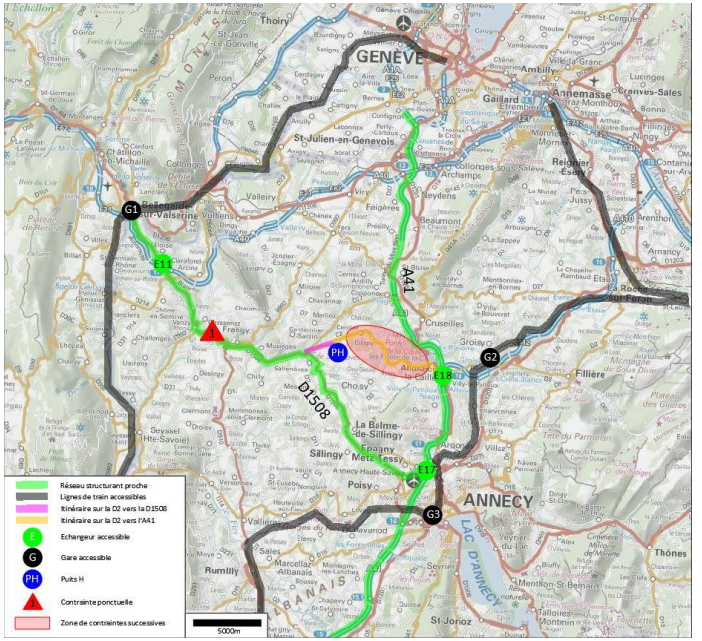
PH : Marlioz / Cercier

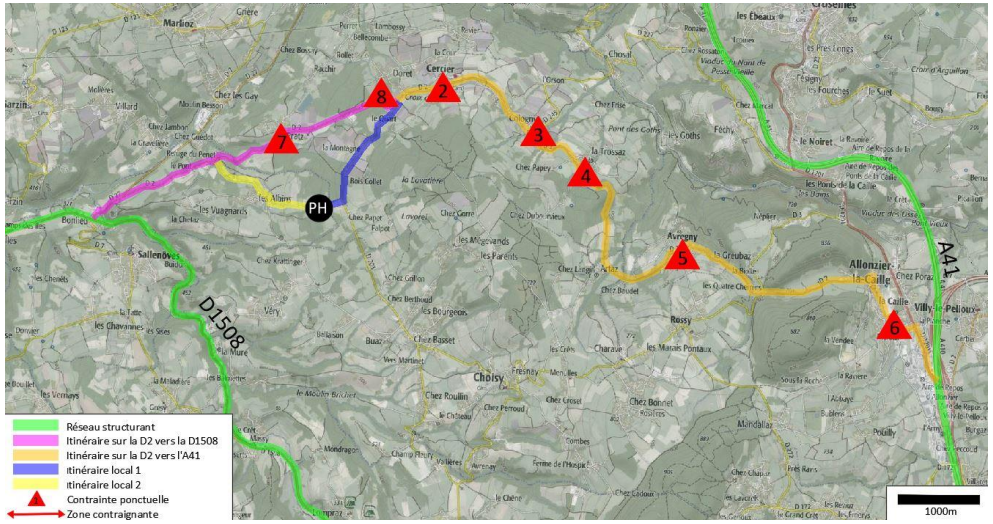
Remote rural environment

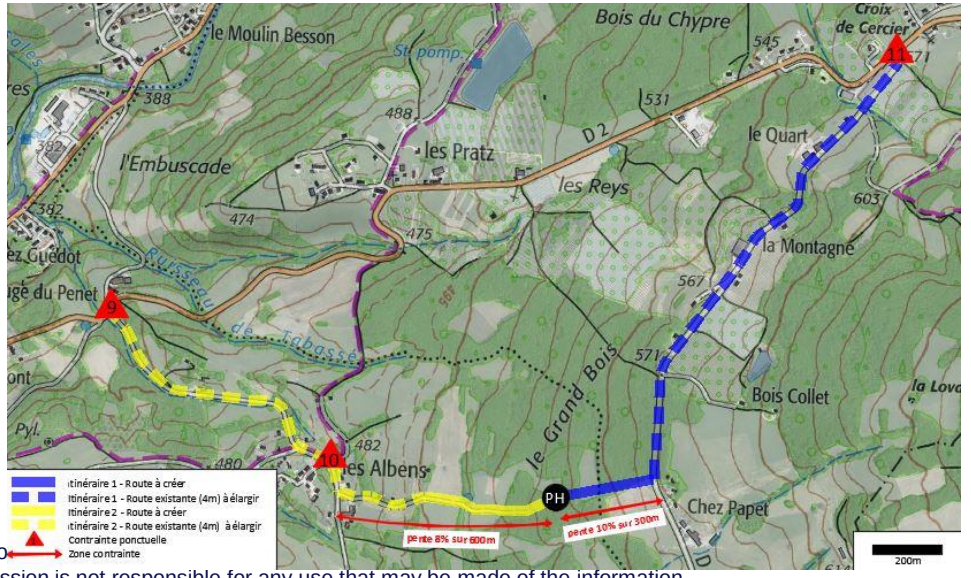
Far from infrastructures (highway, railway)

Quite complex accesses (widening, reinforcement, slopes…) : 1500 m

Site next to departmental roads







The Future Circular Collider Innovation Study (FCCIS) receives funding from the Euro
The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

PJ : Dingy-en-Vuache/Vulbens

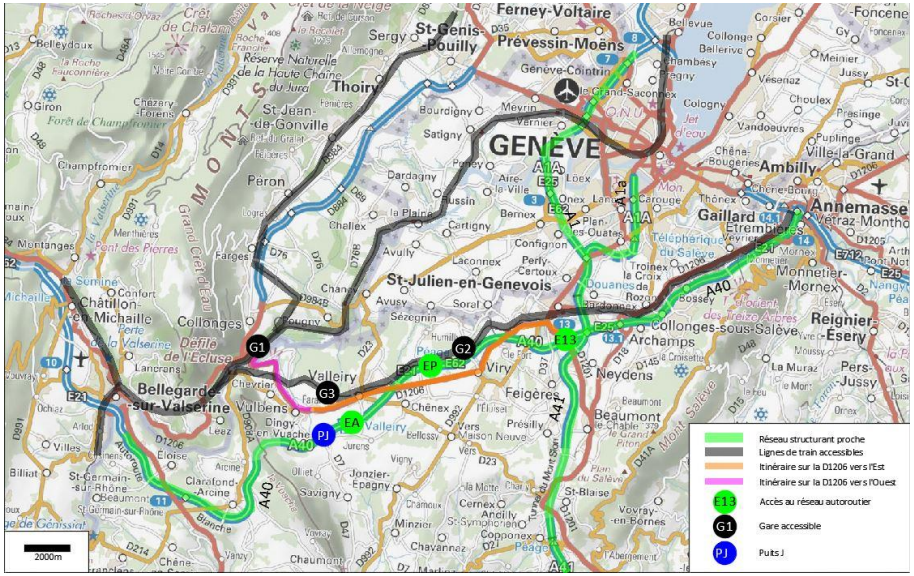
Quite remote rural environment

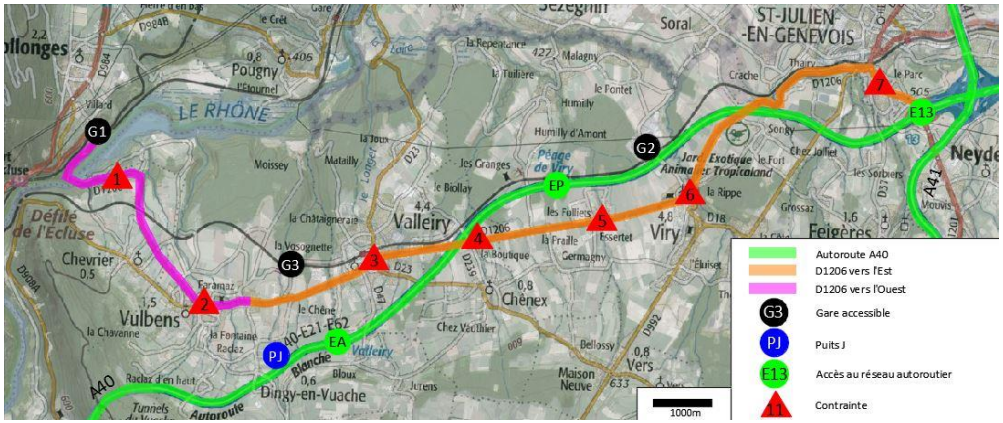
Far from infrastructures (highway, railway) : no nearby acesses

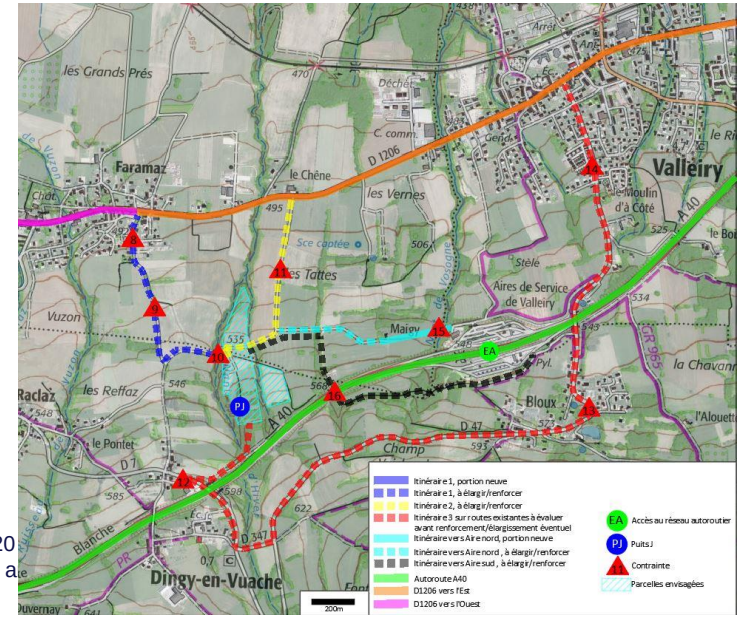
Road access quite long, with crossing of numerous hamlets

Railroad quite far (G1, G2: 7 and 9 km)**, possible rail connection** (G3) **under consideration**

Connection to the plot : 800 m to enlarge/reinforce







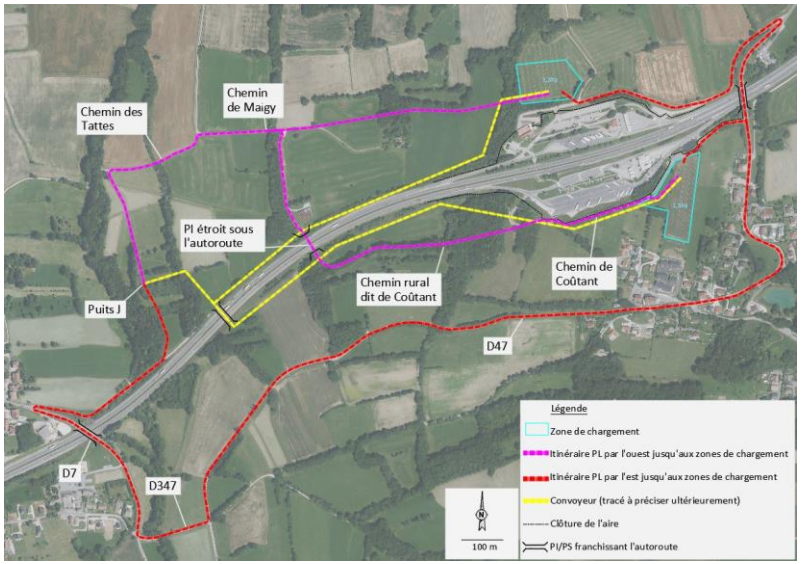
The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020
The information herein only reflects the views of its authors and the European Commission is not responsible for a

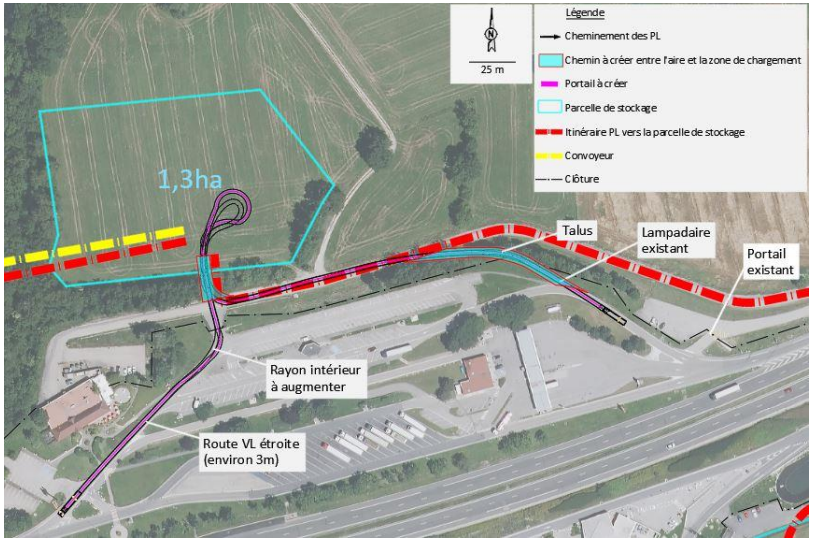
PJ : highway connexion

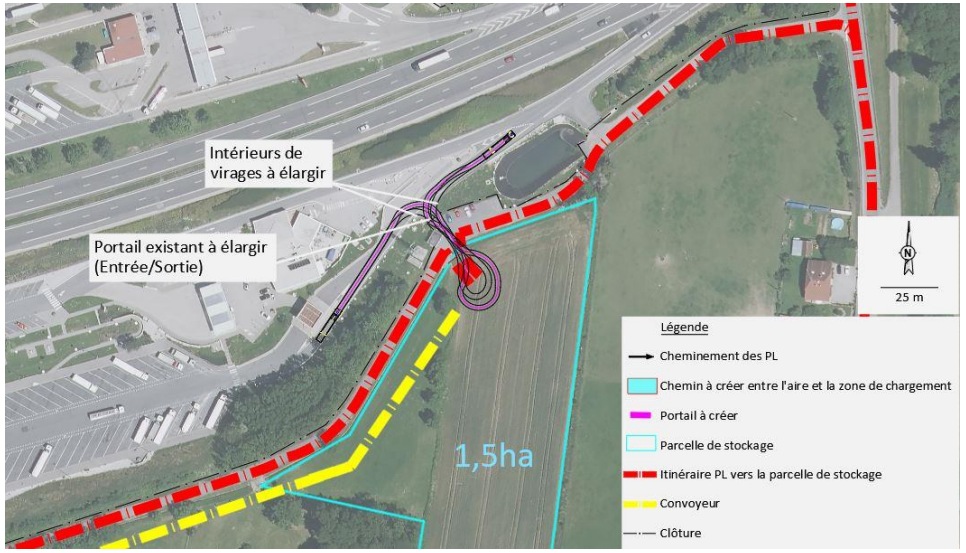
Highway service area not far (800m)

Possible North and South access

Secondary loading areas to be planned







The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754.
The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

PL : Challex

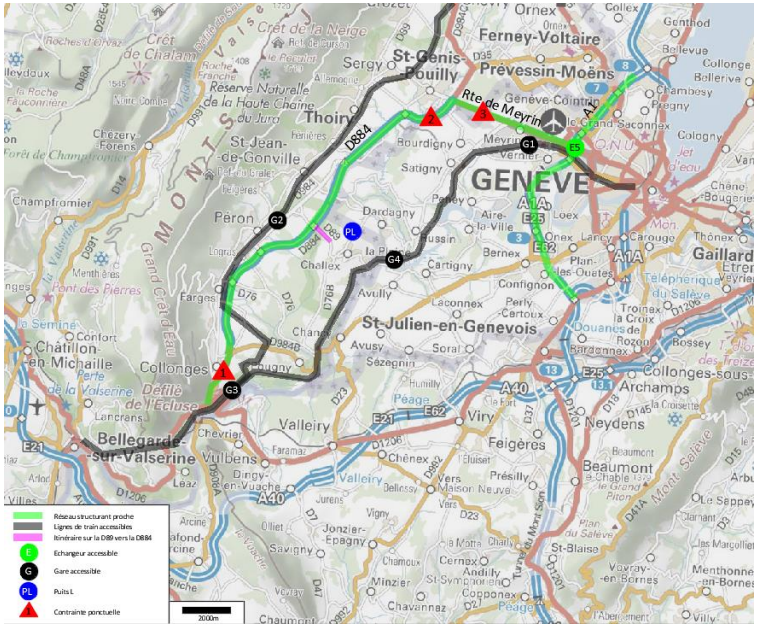
Rural environment

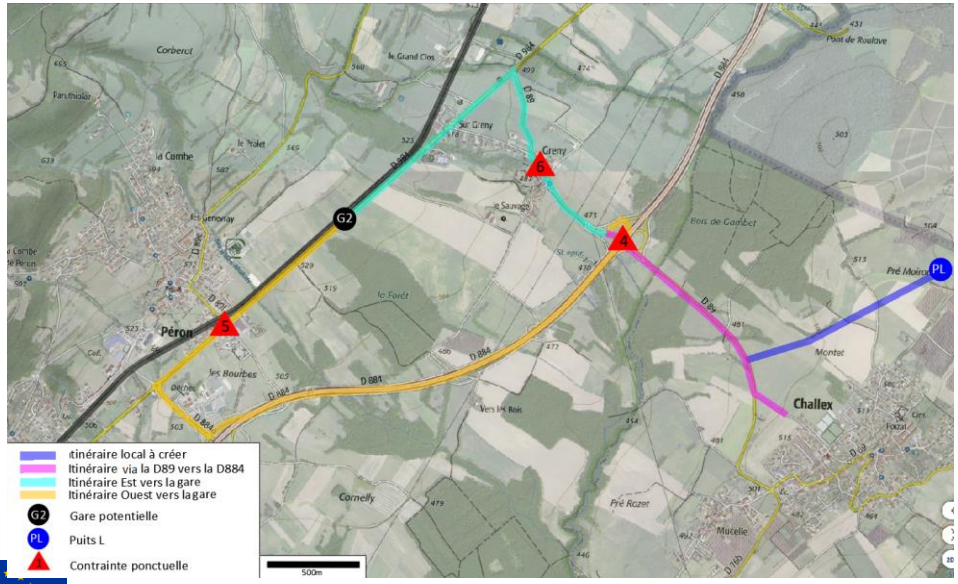
Close from infrastructures (highway, railway)

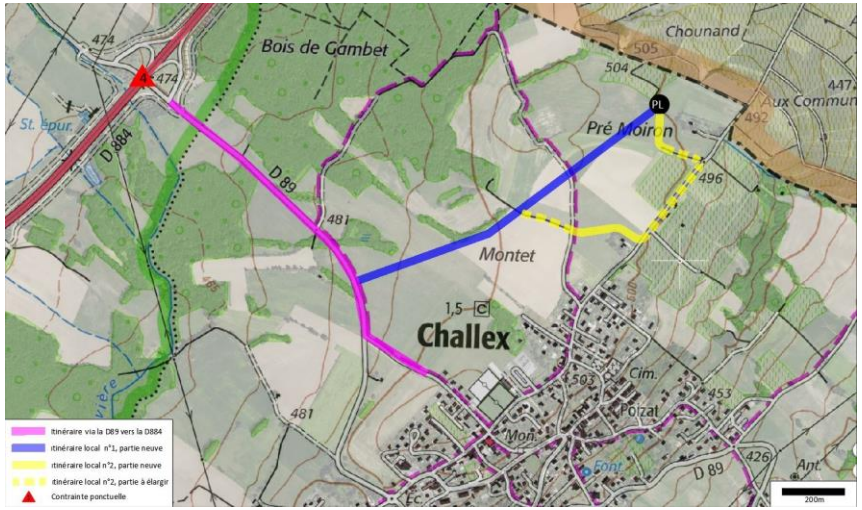
Railroad nearest G2 4,5 km (discused at the moment)

Road access will have to avoid the village

Site at rue de la Craz







The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754.
The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

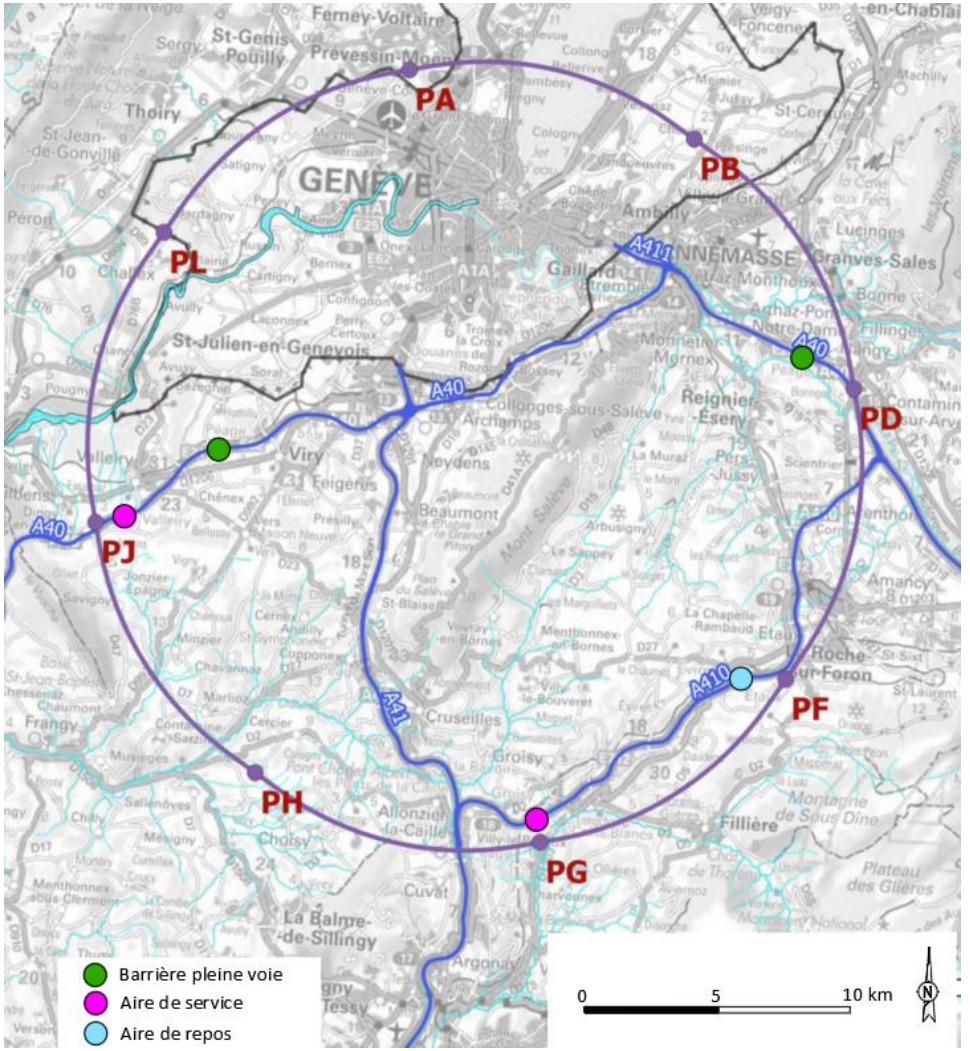
Conclusion

Road accesses :

- **8 surface sites**
- **Reinforcements/enlargements to be detailed in the next phases**
- **Feedback from authorities/road managers**

Highway connections :

- **4 possible connections**
- **The feasibility of direct connections on a motorway seems possible**
- **Detailed connection to carry out in the next phases**



The Future Circular Collider Innovation Study (FCCIS) receives funding from the European Union's Horizon 2020 research and innovation programme under grant No 951754. The information herein only reflects the views of its authors and the European Commission is not responsible for any use that may be made of the information.

THANK YOU FOR YOUR ATTENTION