

Collaboration at the heart of the athletes' village



Marking the entrance to the athletes' village, the "Les Gradins" building will house the world's best athletes from July 2024.

Trimble talks about its collaboration with GA Smart Building on this extraordinary project using a full BIM approach.

About the « Les Gradins » project

The building, named for its stepped combines **sobriety of design and creative design**. Designed from the outset by GA Smart Building to be reversible, it will begin its second life as an office building.

Thanks to this sustainable approach **reconfiguration** will be considerably simplified, so that it can become a living space for the local neighbourhood by the end of 2024.



The « Gradins » in numbers

- **9 200 sqm** designed by the architectural firm ECDM
- **408** athletes and their staff
- **21** bedrooms, **110** bathrooms

GA Smart Building was approached at a very early stage in the **project by the winners***, and is involved in various phases of the project: design studies, off-site construction, with off-site manufacture of structural elements (floors, columns and beams), façades and technical equipment.

« BIM, combined with our industrial expertise, enabled us to save precious time in meeting the ambitious objectives of the project, particularly in terms of planning. »



Olivier Pellegrin
BIM engineering manager
at GA Smart Building

Identifying BIM requirements

- Controlling the **carbon impact** of the construction and the building throughout its life cycle.
- **Schedule management** - the building is designed for a world-class event, there is no way it can be overrun.
- Intensive collaboration involving **several architects and engineering offices** who have to deliver all their buildings together.
- Simplified **reconfiguration** of the building from November 2024. Beyond this initial conversion, we need to ensure that the **data** is accessible, traceable and durable over the long term.

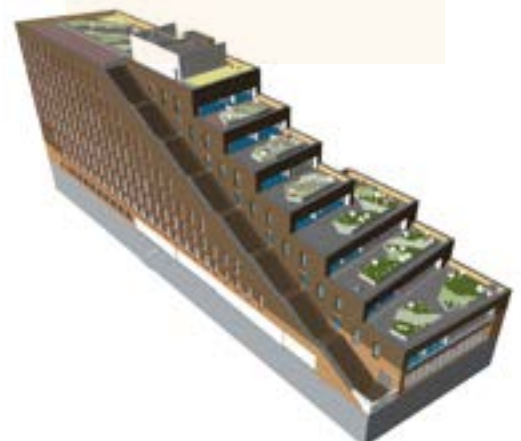
Project phases

- Launch of **preliminary studies**.
- Collection of **models** from architects via **Trimble Connect**.
- GA Smart Building modelled the precast concrete structures on **Tekla Structures**.
- **Le plus du logiciel**
Calculation of the carbon weight of the construction, i.e. the carbon measurement (concrete and steel structure).
- Production of **manufacturing drawings**, followed by industrialisation and delivery of parts to site (by lorry or ship).

- At the same time, other subcontractors other subcontractors to produce **complementary models** using Tekla Structures (for steel structures) or other tools that are interoperable with the Trimble workflow.
- Construction phase with **continuous evolution of the models**.
- **Final recollement phase** with the last **on-site survey** once construction is complete and the models are adjusted, via **Trimble Connect**.
- Handover of the building and all the **documentation** to Icade.

BIM figures of the « Gradins »

- **76** Giga of data – **3 600** files
- **70** updates for the concrete model only
- **105** opened access to Trimble Connect
- **900** assigned tasks



Trimble's advantages for GA Smart Building



Adapting to an industrial context

- Provides **advanced modelling** of concrete buildings and different materials with levels of detail surpassing architectural tools on the market.
- Facilitates the **link** between the model and the various industrial tools



Interoperability

- Addresses all the other BIM tools on the market via **simplified data sharing** (IFC) and a host of functional gateways.
- Essential for the construction of dozens of buildings covering the **52 hectares** of the village.



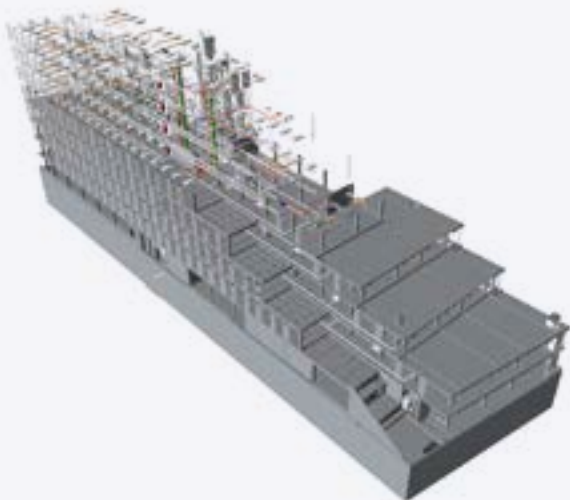
Collaboration made easy

- Brings together different stakeholders and trades - including all levels of BIM expertise - on a single model, via **Trimble Connect**.



Versioning management

- Enables **multiple versions** of the model to be created and archived according to the needs of the project.



« I find that Trimble Connect is the best collaboration platform on the market, in terms of file quality and usability. You can feel that they've turned the tool to make it easy to use, even for non-experts. »



Olivier Pellegrin
BIM engineering manager
at GA Smart Building

**An already historic building
to discover in summer 2024!**

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