



Osborne

Twickenham Station – 115 New homes created over the mainline railway



PROJECT

**Twickenham Station
Development**

CUSTOMER

Solum

LOCATION

Twickenham

CONTRACT

Two stage design and build

COMPLETION

2020

Issue

Transformational re-development of land over the railway in major cities like London carries high risk for high return.

At Twickenham Station, the developers have taken a creative approach to improve local amenities and provide 115 spacious new homes with well-connected travel links. Their vision of a new station building, plaza and retail units at ground level with new apartments exploits the 'air' over the rail corridor.

How can selecting the right design and build contractor improve predictability when developing in this safety critical rail environment?

Solution

Safe operation of the railway must be guaranteed not only during the build but over the whole life of the development. That means the design must fully consider how the building will be constructed as well as how it will be used and maintained. Passenger safety and train punctuality has to inform decisions.

At Twickenham this was even more acute with over 5 million passengers passing through the station annually, and tens of thousands attending stadium events.

The station is located in Network Rail's Wessex area where Osborne is the incumbent on their multi-functional framework so we understand the route and the station constraints. With over 1000 framework designs approved 'right first time' we were able to translate our knowledge into creative solutions to aid rail approval and reduce time/cost risk.

With design and construction so intrinsically linked early specialist rail input can allow you to 'design in' functionality and buildability so increase predictability. At Twickenham we were appointed at Technical Design Stage and challenged the design and the approach in collaboration with the novated parties and Network Rail. Every decision focussed on innovative solutions which maximised safe outputs in the rail environment. Where possible we reduced or eliminated activities requiring a rail possession.

As a result, the columns changed to off-site fabrication, the piles were designed

for a small rig working by the railway in daytime and inclusion of a contiguous piled wall reduced soil disposal in this logistically difficult location by 200m³.



Figure 1 – Podium Deck

Outcome

For customers seeking to exploit those opportunities to develop commercial and residential property over the railway, engaging the right rail expertise at the earliest stage will reduce rail risk.

By creating a development with minimal impact on the operational rail, project outcomes become more predictable. The result for our customers is increased certainty of scheme time, cost and safety.