



Nitrogen Tank Concrete Plinth - Thetford, Norfolk

Overview

A returning client of ours, for whom we previously undertook a loading canopy back in 2023, required a robust concrete plinth installing next to their factory building which would house two new liquid nitrogen tanks.



Completion Date: November 2025

Scope of Works: Design, Engineering, & Construction Works

Project Management and Construction Team: Ben Trundle, Wayne Dewing, & Chris Burgess

Project

After producing the general arrangement drawings and agreeing them with the client, the reins were handed to our structural engineer who was responsible for specifying the thickness of the slab, the mix of concrete, and the amount of steel reinforcement contained within the slab. All of which come together to create a plinth strong enough to withstand the load of the two large nitrogen tanks.

The plinth installed was 750 millimetres thick, approximately 4 times thicker than a standard HGV concrete yard, and the high strength PAV2 concrete used is designed for heavy duty industrial settings. The thickness and mix of the concrete, combined with the 3.2 tonnes of steel reinforcement contained within it, meant this plinth was going to be incredibly strong following its 28-day curing period. Over the course of 4 weeks our skilled civils operatives broke out the existing concrete yard before laying a 300 millimetre base of MoT Type 1 stone, upon which the new plinth was installed. To finish the project, we relocated an existing drainage gully that fell within the area of the new slab, and installed 15 concrete filled mild steel bollards that serve as protection for the nitrogen tanks against heavy vehicles and plant.

Conclusion

This project goes to show that something that may seem incredibly simply on the face of it, such as a concrete slab, can require the input of many different professions in order to deliver a final product to the client that is suitable for its application. This project took input from our design, engineering, and construction expertise and our client is very happy with the finished outcome.

[Click here to read about the Loading Canopy project mentioned earlier in this case study - Warehouse Canopy Extension - Thetford, Norfolk - Trundle | Architectural Design, Construction and New Home](#)



Combining design, structural engineering and construction expertise, we delivered a reinforced 750mm-thick concrete base complete with relocated drainage and protective steel bollards, creating a robust solution designed for demanding industrial use.