

# Godstone Road, Whyteleafe

## Improving the neighbourhood

An existing car sales premises with dilapidated outbuildings will be demolished to make way for a new retail unit 400m<sup>2</sup> at ground floor and four residential units of 100m<sup>2</sup> each above.

The retail space will be built with a series of portalised steel frames so the stability of the building will be provided by moment connections between the columns and beams, avoiding the need of cross bracing.

At preliminary design stage, RISE were considering two options for the retail unit. One with a free column space following the client request and the other with internal columns. For the column free space, the beams were considerably bigger to span the full width of the retail and support the flats above. This option became cost prohibitive so the client agreed on internal columns. RISE coordinated the location of columns with the shelving, to minimize their impact on the retail unit.

Above this, the residential units will be covering half of the retail area on two storeys. Timber will be used to reduce the weight to the structure below. The other half will be covered with a flat roof supporting solar panels.

**Client:** Novellus Capital

**Project cost:** £1M

**Architect:** Rame Architects



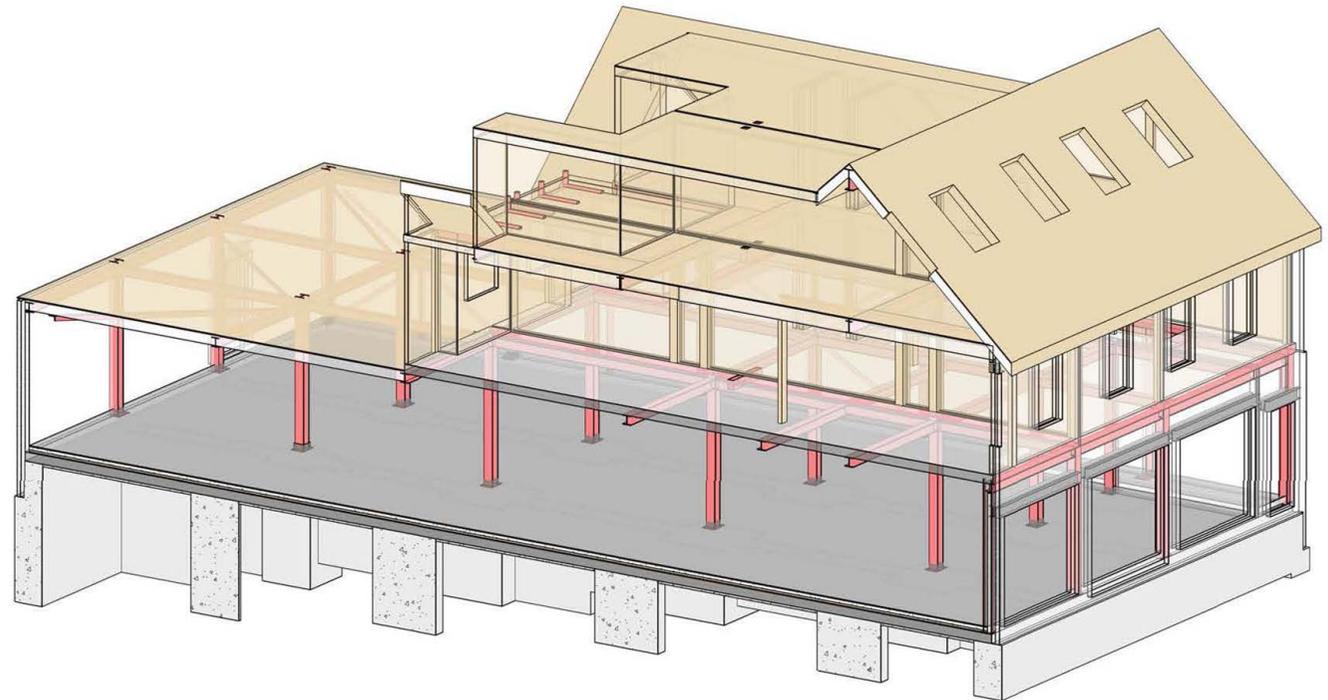
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Since the existing site slopes considerably from the road to the rear, the debris from the demolition will be re-used to level the site to the underside of the ground floor slab, which will be designed as cast in-situ suspended reinforced concrete slab. That means that no grading or compacting of the debris will be required, simplifying the construction process.

A SUDS scheme will be design to dispose of rainwater from the site without impacting on the already heavily utilized local sewerage network.

Avoiding the use of piling, foundations will be stepped to follow the profile of competent chalk bedrock at a depth of up to 2m below existing ground level. Since the existing ground level also varies in depth, the foundations could require formwork, however doing the backfill to the underside of the ground floor slab earlier, it would then act as a formwork to the foundations.

An economic solution has been proposed by thinking about the sequence of works and re-utilizing the debris from the demolition, whilst avoiding piling.



Showroom turned shop