Project Case Study
Richmond, London
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Introduction

This project is a full renovation of a four floor listed property with a two storey extension, to form a six bedroom and five bath/shower-room home in Richmond. The two storey extension consists of a new basement and a modern glazed extension.

As part of planning and property being listed, it was essential that the existing period features were restored. Refurbishment works included feature staircase, hardwood floors throughout, modern kitchen, specialist joinery, internal and external glazed walls, roof lights and integrated AV system with biometric door release. A ground source heat pump and a grey water recycling system were introduced in order to increase the sustainability of the property.

The final construction period was 48 weeks with site works commencing in January 2012, accommodating drip fed drawings and implications of a planning appeal decision for the extension. The final build cost was in the vicinity of £1.4 million excluding VAT. The project was procured on a JCT Intermediate Building Contract. Ship Shape Construction completed the project on time and to a very high standard of finish.

Ship Shape Construction had directly employed Commercial Manager, Site Manager and Working Foreman throughout on the project. A number of the trades were either employed in house or under preferred subcontract working arrangements. The project also incorporated nominated subcontractors.

The following photos and commentary is designed to give readers an understanding of the construction process involved with attention being drawn to special features of the build.
Basement and extension

Before

The existing property had a single storey garage to the front, two storey brick extension and a garden shed to the rear which had to be demolished in order to commence work on the basement extension. Side gate with concrete walkway, floor and sub base to garage were removed and disposed. The existing back garden had almost encroached into the lower ground floor windows, making the rooms on this floor dark and dull. The rear garden had to be excavated to provide space for new patio and steps.
Basement and extension

During

The basement was formed by first underpinning the boundary wall, taking care not to disturb the ground and structures of the neighbouring property. After underpinning, temporary posts and walings were installed. This was followed by backfilling the underpins, constructing mass concrete thrust blocks, installing rakers of which one end was connected to the waling and other end inserted into the concrete block. Once the temporary works were in place, excavation commenced to the required level, constructing the substructure with reinforced slab. New cavity walls of high strength blocks and timber joisted roofs were constructed to form rest of the extension.
Basement and extension

After

The ground floor extension was completed and finished by glazed structure and sarnafil roofing. The full height glazed extension floods this area with light while giving a feeling of space even on dull days. The basement houses the guest bedroom, guest bathroom, wine cellar and plant room while the ground floor glazed extension accommodates the bespoke kitchen and pavilion.
Ground source heat pump installation

During the course of the project, the clients were keen to increase the sustainability of their property which was achieved through the installation of a closed-loop ground-source heat pump (GSHP) system to supply spatial heating and domestic hot water in the property. The energy source for the ground source heat pump comes from the main electricity and 680m of active borehole configured in 4 x 170m boreholes. These boreholes were to be located in the rear garden in liaison with the landscape plan. As the system was introduced after the basement was formed, a temporary ramp was designed and built by Ship Shape Construction to transport the borehole drilling rig to and from the rear garden.
Glazed extension roof

Fixed structural glass skylight in 2 Nr silicone jointed panes above the kitchen island brings in a lot of light into this area. Upstands around perimeter of the roof light opening were formed from joists and brackets to brace upstands from preventing outward deflection. These were strapped securely to the steel structure below preventing from twisting from roof light thrust.
Master bathroom

Entire floor was strengthened by doubling up the joists and the existing rooms were opened up to form the master bedroom, dressing room and master bathroom. The generously proportioned master bathroom features under floor heating, timber oak floor, pietra laro stone tiles, slabs of clay grey midi glacier in the shower area, pandomo wall finish around the free standing bath with vola towel rails and glass surrounds to shower area and WC. The Kurv Thinn bath in the master bathroom forms the focal point, taking your view through the sliding glass panels of the dressing room.
Special features

Staircase

Stannah stairlift on the existing staircase had to be removed and disposed. The existing balustrades and steps had to be refuribished and redecorated while the handrail was brought to its glory by french polishing. New engineered redwood curved steps to the ground floor with new kneewel post and balustrades completed the grand staircase.
Special features

Roof light

This roof light above the staircase floods light into the stairwell. The existing roof had to be broken through to form the new opening while the roof light had to match the existing pitch of the roof. Even though the roof light was a rectangular structural skylight, the clients were eager to have a curved feature around it. This curved plastered feature shows the outstanding workmanship of the plasterers and carpenters employed by Ship Shape Construction.
Special features

Bespoke joinery

Joinery subcontractor was nominated in the contract that was incorporated into the programme of the project. A close relationship was maintained between the joiner, site manager and architect to produce these bespoke joinery units while electricians worked hand in hand with the joiner to install all the lighting into the units. The existing cornices around these joinery units had its paint removed by peel away system and refurbished to retain the original feature of the property.
Special features

Patio

The rear garden was dug to bring in light into the lower ground floor and to form the patio and stepped planters. Steps and planters formed in reinforced concrete were finished by diamond sawn Yorkshire stone while Yorkshire paving was laid on the patio. Leaky pipe system was installed in the planters to supply water to the plants.