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ENGINEERS PLANNING REPORT
HOUSING SCHEME
AT
PORTUMNA, CO. GALWAY

HLA

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INTRODUCTION

This engineering design statement has been prepared in support of a full planning application under Part 8 by Galway County Council for a residential development on lands at St Brigid's Road, Portumna.

The application is as follows:

Partial demolition of 11 no. detached dwelling houses and complete refurbishment and extensions to provide 11 No. 2 Bedroom single storey detached dwellings along with external site works and services.

The overall site measures approximately 0.35 hectares and is of irregular shape fronting the main street – St Brigid's Road. On average, the site is 69m deep and approximately 115m wide.

SURVEYS

An overall topographical survey of all sites was undertaken by Control survey as per drawing Topographic Survey drawing HLA-00-ZZ-DR-A-100. The existing levels will remain the same apart from localised minor adjustment at entrances to provide level access

CIVIL ENGINEERING SERVICES

Overview

All existing services are available to all 11 units to include foul sewer, storm sewer and water supply with no new services required.

Storm Water

A sustainable urban drainage system (SUDS) is proposed to improve the discharge of stormwater to the existing storm network by means of individual soakaways and Bioretention Planters/Rain Gardens in accordance with The Greater Dublin Drainage Study GSDS CIRIA SUDS Manual guidelines. An assessment will be carried out on the current soil filtration values of the individual site in accordance with BRE 365 to determine the design requirements of the above

Foul Sewage

Existing connection to main foul sewer, no upgrade or new connections are required.

Water Supply

Existing connection to public water supply available, no upgrade or new connections are required.

Flood Risk

A comprehensive flood risk assessment was conducted by reviewing all available maps, including the Galway County Council's Development Plan 2022-2028 and the associated Galway County Council Flood Zone mapping. Based on this detailed desktop study, it has been determined that none of the sites are associated with any flood risk.

ROAD DESIGN

All units are currently accessed directly from St Brigid's Road with no additional pavement or upgrade works required

Footpaths

- All new footpaths (where applicable) are to be min 2.0m wide to accommodate upgrade to services such as ESB, Telecom etc.
- 150mm 30N, 10 mm chip concrete, expansion joints at 4 m max. exposed aggregate concrete path finish
- Expansion joint: 10 mm thick 'Flexcell' or similar approved, top of expansion joint filled with deep gun applied 'Colpor 200' or similar approved on bond breaking tape.
- Path to be poured on top of 250mm compacted Clause 803 gravel.

DEMOLITION

The appointed contractor shall be responsible for the complete and methodical demolition of any specific structures with any of the existing units to include roofs and any walls per the architects design. Prior to commencement, the contractor must develop and submit a comprehensive Demolition Management Plan detailing the sequence of operations, risk assessments, method statements, and control measures to ensure structural stability throughout the process. The contractor shall obtain all necessary permits, implement appropriate site security measures, and provide adequate protection to adjacent properties, public areas, and existing services that are to be maintained. Dust suppression techniques, noise mitigation measures, and vibration monitoring must be employed throughout the demolition activities. The contractor is responsible for segregating all waste materials on site, maximizing opportunities for reuse and recycling where feasible, and ensuring proper disposal of all demolition waste at licensed facilities with comprehensive documentation of waste transfer and disposal maintained.

Upon completion, the contractor shall provide certification confirming the site has been left in a safe and stable condition suitable for subsequent construction activities

ASBESTOS REMOVAL

The appointed contractor shall be responsible for the complete and safe removal, handling, transportation, and disposal of all asbestos-containing materials (ACMs) from the roofs and all other elements of all 11 existing units as per Asbestos surveys carried out by Higgins Consultancy. The contractor must be a licensed asbestos removal specialist registered with the Health and Safety Authority (HSA) and shall, prior to commencing works, prepare a comprehensive project-specific Asbestos Removal Plan in accordance with the Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010. This plan must include risk assessments, method statements, and details of containment measures to prevent fibre release. The contractor shall provide written notification to the HSA at least 14 days before work commences, arrange for air monitoring before, during, and after the removal process, and ensure all waste is properly sealed, labeled, and transported to an authorized waste facility with appropriate documentation maintained for the waste transfer. Upon completion, the contractor must provide clearance certification confirming the site is free from asbestos contamination and submit all relevant documentation including waste disposal certificates for the client's records.

STRUCTURAL ELEMENTS

Overview

The proposed structural design has been completed in compliance with the Current Irish Building Regulations and Eurocodes. The proposed structural scheme is the same for all of the dwellings, and is as outlined below.

Ground Conditions

Trial holes to be excavated to review existing ground condition with infiltration testing to be carried out in accordance BRE 365 to determine the design requirements for individual soak-aways

Foundations

The bearing capacity of the ground would be considered good with no visible structural issues to existing units which are founded on strip foundations.

The foundations to new external and internal walls to extensions shall comprise of a strip foundation throughout to ensure a uniform spread of loading to the underlying load bearing strata. Excavations to be assessed by engineer prior to formation of new foundations

Ground Floor

The ground floor construction is to comprise of a reinforced 150mm concrete slab bearing on structural fill. In the case of depths in excess of 900mm floor slab to increase to 200mm suspended slab with 100mm bearing on external walls.

Walls

The external walls are to comprise a 100mm inner leaf and a 100mm external leaf. The width of the cavity and the insulation is to be as per the Architects specification.

The party walls are to be of cavity construction, comprising a 100mm load bearing masonry wall, a cavity to the Architect specification, and a 100mm load bearing wall to the adjoining property. The use of a cavity construction party wall is to comply with Part B and Part E of the Current Building Regulations.

All load bearing masonry is to have a minimum mean compressive strength of 7.5N/mm². The internal non-load bearing walls shall be 100mm thick masonry construction.

Heavy duty lintels are required over the internal leaf of the external window and door openings when located below masonry supporting the precast concrete first floor or where the proposed span is 1.5m or greater internal & external leaf. Any ope's exceeding 2m or corner windows etc will require specifically designed steel lintel. All remaining external openings will require an inner and outer precast concrete lintel to support the blockwork over. All precast lintels to be CE marked and certified for approval.

Roof

The roof is to comprise slates and insulation to the Architects specification, on prefabricated timber structure, the design of which is to be undertaken by a prefabricated timber truss supplier with ceiling incorporated in to bottom chord of truss. All calculations and drawings are to be approved by engineer prior to fabrication.

Boundary Walls

All walls to be in accordance with Architect specification to include boundary & dividing walls. Block boundary walls to have piers every 3.5m centers with control joint every 7m. Review of current levels would indicate that minimum retention will be required across the 11 sites

CONCLUSION

At this stage of the project, we do not envisage any major issues that would impact on the viability of the project.