

Westbrook Housing Company Limited



Structural Conservation Condition Assessment Report

of

Remaining Farm Building Structures at the former Old Grange Farmyard,
Cooney's Lane, Douglas, Co Cork

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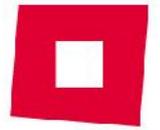
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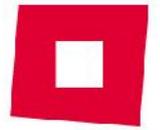
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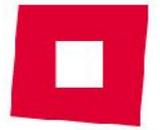
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1. Introduction

At the request of Mr Tom Falvey of Westbrook Housing Company Limited, a structural conservation condition inspection and assessment of the existing farm building structures at the former Old Grange Farmyard, Cooneys' Lane, Grange Douglas, was carried out by Mr Pat Brady, Chartered Engineer on Wednesday 16th of January 2018.

The purpose of this structural conservation inspection and report has been to assess the present structural condition of the remaining old farmyard building structures, many of which have been derelict for a number of years, and to give a considered structural conservation engineering opinion on the viability or otherwise of possible retention and restoration/redevelopment of the building structures as part of a wider proposed new residential housing scheme development for this site.

It should be noted that this survey was a visual walk over type inspection, no opening up of the structure, foundations etc. was carried out and some areas within the buildings were not seen as they were inaccessible or were unsafe to enter such that hidden or unseen structural defects would not have been identified.

2. Site Location & Building Structure Identification Description

The context map below indicates the full extent of the proposed new residential housing development site at the former Old Grange Farmyard site, Cooney's Lane, Grange Douglas. The farmyard area and existing buildings are located to the north west end of the site. The farmyard is bounded on the west by Cooney's Lane and has existing entrance access from this road.



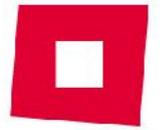
Figure 1 Site Content Map



Figure 2 below shows an aerial view of the Old Grange farmyard with the principle former farm yard building structures identified.



Photo 01 – Arial View of existing building at Old Grange Farmyard, Cooney's Lane



3. Building Structure Condition Assessment

3.1 - Former Farm/Coach Building (c)

Building (c) which is identified as the former Coach/Farmhouse residence is a one and a half story detached traditional farm house structure which dates from circa pre 1840.

The building is constructed from rough rubble stone and brick masonry. The external walls are generally exposed stone with some small remanence of lime plaster and lime wash in places. The north facing gable is patched with sand and cement render at high level. There is significant ivy and heavy vegetation growth covering large sections of the building structure which have damaged and displaced masonry and building fabric throughout.

The wall masonry is generally in a poor condition at this time with partial collapse and deterioration of sections of the walls and significant loss of mortar and stone work on all elevations, particularly on the front and rear elevations on the south facing gable walls. The timber window and door frames and support heads have rotten and partly collapsed throughout with subsequent partial collapse and loss of masonry over the openings as seen on the front elevation photo 02 below. The gable walls and rear walls of the structure are leaning significantly and significant cracking and displacement of masonry evident.

Internal ground floors were not visible at the time of the inspection, the first floor timber boards are on suspended timber joist spanning front to the back. These timber floors are extensively rotten and have collapsed in large part. The upper floor area was in accessible at the time of the inspection but it was clearly evident from ground level that these floors are perished.

The building has a pitched A gabled roof with natural slate on timber rafters over the house section and corrugated iron roof sheeting on timber rafters and purlins over the stable/coach section to the southern end of the structure. These roofs are in a very poor condition with significant deterioration of the slate and sheeting and of the supporting roof timber structure.

As outlined above this building structure is in a very poor state at this time, if it were to be retained and restored it would require full removal of the roof and internal floors structure, significant partial demolition and rebuild of the existing masonry walls including most of the front and rear wall to ground floor cill level and significant sections of the gable to below first floor level. The retained masonry would have to be re-pointed and grouted with some re build and possible underpinning of the walls.

Given the extend of structure that would be required to be removed and rebuild it may be appropriate to remove the existing structure and rebuild a similar structure along the lines of the original footprint with reuse of salvaged materials as appropriate.

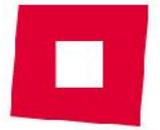


Photo 02 – Building (c) Former Farm/Coach House – View of front west facing elevation.



Photo 03 – Southern Gable of Building (c) Former Farm/Coach House

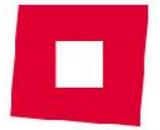


Photo 04 – Rear east elevation of Building (c) Former Farm/Coach House



Photo 05 – Building (c) - View of significant collapse wall masonry and roof slate to front of house



Photo 06 – Building (c) - View of collapse masonry over door head to front of house



Photo 07 – Building (c) - View of section of missing stonework and mortar loss at southern gable wall. Note mud core to wall construction.

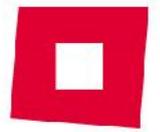


Photo 08 – Building (c) – View of internal wall to southern coach house/stable section of the building. Note the poor condition of the masonry and roof structure.

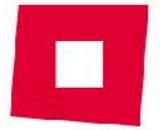
3.2 - Two story farm outbuilding Building (f)

Building (f) is a circa 1840+ 2 story farm outbuilding – These building structures are two story masonry farm structures. The building had been constructed in two phases with the western end being the initial late 19th century two story mass stone masonry structure construction and the later eastern end being a rubble stone construction at ground floor with a later cavity masonry block construction over at first floor.

The original structure to the western end of the building is constructed in significant mass stone and brick masonry walls and these are substantial solid built structural walls of circa 600mm thickness. These walls appear to be in a reasonable good structural condition.

The wall structure to the eastern end of the build is of rubble stone construction at ground floor with a later masonry block construction over at first floor. These walls are in a poor structural condition with significant lean and displacement and cracking on these walls evident. There has been temporary steel ties and channel supports install between the north and south walls of this section of the building to restrain and stabilise the wall structural.

The first floor of the building are timber boards on timber joists spanning north-south. These timbers are rotten and decayed in a number of places. The roof are pitched slat roofs on cut timber rafters. The roof surfaces and ridge lines are dipped and displaced in places and the timber rafters are sagging and show significant signs of rot to the ends.



As outlined above this building was constructed in two phases. The building walls structure to the western end is a mass stone masonry structure and is generally structurally sound and could be substantially retained and incorporated into a redeveloped residential structure. The roof and parts of the upper wall structures would have to be replaced and the walls repaired and repointed and rendered etc.

The later built rubble stone and block masonry structure to the eastern end of this building is in a much poorer structural condition and this section of the building, I would suggest, is of a poor build quality and a less significant structure than the original stone structure. Given this it may be appropriate that this eastern section of the building be removed.



Photo 09 – Building (f) Two story farm outbuilding Building– View of Easter end of south facing elevation of late 19th structure.



Photo 10 – Building (f) Two story farm outbuilding Building– View of western end of south facing elevation of later possible early 20th century structure.



Photo 11 – Building (f) Two story farm outbuilding Building– View of Easter end of north facing elevation of late 19th structure.



Photo 12 – Building (f) Two story farm outbuilding Building– View of western end of north facing elevation of later possible early 20th century extended block structure.

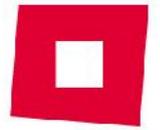


Photo 13 – Building (f) Two story farm outbuilding Building–View of western end of north facing elevation showing masonry block walls and steel plate and tie rod on north elevation.



Photo 14 – Building (f) Two story farm outbuilding Building– View of internal ground floor area to western end of building showing lime washed stone wall and underside of suspended timber joist to first floor.

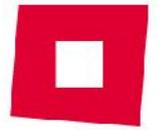


Photo 15 – Building (f) Two story farm outbuilding Building– View of internal 1st floor area to western end of building. Timber roof rafters and exposed blockwork walls visible.

3.3 - Farm labourer's cottages /outbuildings Building (e)

Building (e) is a circa 1840 + single story farm labourer's cottage accommodation/outbuildings –

These building structures are low single story rubble stone structures with pitched slate roofs. The building is narrow and long in plan.

The roof is in a very poor condition with missing slate and rotten timbers.

The walls are rubble stone masonry with brick window and door reveals. The walls are in a poor condition at the upper level above the window and door heads where timber frames and support heads have decayed. The walls are generally exposed stonework with significant mortar loss and there is sections of loose and missing stone work in places on the gables where the mud core is visible with in the walls.

The external ground level to the south and east side of the building are high at circa +1m above the internal floor levels , The roof eaves are low at less than 2m.

This building structure is in a poor structural condition at this time, if it were to be retained and restored it would require full removal of the roof and internal wall and floors structures, partial demolition and rebuild of the existing masonry walls above window head levels including sections of the front (north) wall and upper sections of the end gables. The retained masonry would have to be re pointed and grouted with substantial sections of re build and possible underpinning of the walls. The south and eastern facing walls would have to be tanked externally.

Given the low roof and eaves, the high ground levels and the narrow plan dimension of the existing buildings it would be difficult to achieve significant residential use within the existing structural envelope without building up and extending out the front of the existing building footprint.

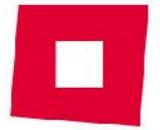


Photo 16 – Building (e) is a circa 1840 + single story farm labourer's cottage accommodation/outbuildings. View of south facing elevation. Note extensive missing and slipped slate to roof and heavy vegetation growth to building.



Photo 17 – Building (e) is a circa 1840 + single story farm labourer's cottage accommodation/outbuildings. View of eastern gable elevation . Note high ground level and missing and slipped slate to rear north roof surface.

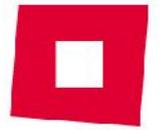


Photo 18 – Building (e) is a circa 1840 + single story farm labourer's cottage accommodation/outbuildings. View of roof and window opening at rear north elevation. Note missing and slipped slate to roof surface and rotten timber head over window ope.



Photo 19 – Building (e) is a circa 1840 + single story farm labourer's cottage accommodation/outbuildings. View of door opening on south elevation to western end of building. Note extensive vegetation to building fabric, missing and slipped slate to roof surface.

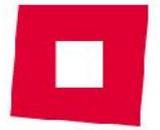


Photo 20 – Building (e) is a circa 1840 + single story farm labourer's cottage accommodation/outbuildings. View of internal north west corner of building. Note loss of mortar joints from stone work, vegetation to building fabric and missing and slipped slate to roof surface.



Photo 21 – Building (e) is a circa 1840 + single story farm labourer's cottage accommodation/outbuildings. View of internal building looking east.

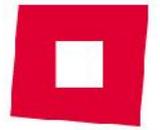


Photo 22 – Building (e) is a circa 1840 + single story farm labourer's cottage accommodation/outbuildings. View of internal western gable wall of building. Note loss of mortar joints and stonework from wall.



Photo 22 – Building (e) is a circa 1840 + single story farm labourer's cottage accommodation/outbuildings. Close up view of stone work to internal western gable wall of building. Note loss of mortar joints and mud core filling to wall.



4.0 - Conclusions & Recommendations

As outlined above the existing buildings which are arranged around the original Old Grange farmyard enclosure at Cooney's Lane are traditional 19th century stone built farm structures. These buildings have been disused and derelict for many years and are generally in a poor structural and fabric condition at this point in time.

The following is a summary of our considered structural conservation engineering opinion on the viability or otherwise of possible retention and restoration/redevelopment of these building structures as part of a wider proposed new residential housing scheme development for this site.

Building (c) circa pre 1840 early original farmhouse residence – The building is in a very poor structural and fabric condition at this time. Based on this structural assessment we do not feel it would be viable to retain and restore the structure. Given the extent of structure that would be required to be removed and rebuild it may be appropriate to remove the existing structure and rebuild a similar structure along the lines of the original footprint with reuse of salvaged materials as appropriate.

Building (f) circa 1840 + 2 story farm outbuilding – These building structures are two story stone structures. The basic wall and roof structures are intact at this time. They form a significant block structure to the northern side of the original farm yard. As outlined above this building was constructed in two phases. It would be possible, if desired, to retain the significant sections of the existing building structural walls and convert and redevelop these buildings to new residential use.

The walls to the western end of the building are thick mass stone and brick walls and are generally structurally sound and could be substantially retained and incorporated into a redeveloped residential structure. The roof and parts of the upper wall structures would have to be replaced and the walls repaired and repointed and rendered etc.

The later built rubble stone and block masonry structure to the eastern end of this building is in a much poorer structural condition and this section of the building, I would suggest, is of a poor build quality and a less significant structure than the original stone structure. Given this it may be appropriate that this eastern section of the building be removed.

Building (e) circa 1840 + single story farm labourer's cottage accommodation/outbuildings – These building structures are single story stone structures. They form a significant block structure to one side of the original farm yard. This building structure is in a poor structural condition at this time, if it were to be retained and restored it would require substantial partial demolition and rebuild of the existing walls and roof structure. This may not be viable under the proposed residential development. Given the low roof and eaves, the high ground levels and the narrow plan dimension of the existing buildings it would be difficult to achieve significant residential use within the existing structural envelope. The partial removal and re construction of a new similar block form of buildings along the similar footprint with reuse of salvaged materials may be considered.

In summation, the old Grange farmyard and surrounding farm buildings are part of the historic farming and residential development of the Grange area. The proposed redevelopment of the farmyard along the existing layout and building footprints is recommended. As outlined above, the redevelopment should incorporate the existing building structures where possible. Where the existing buildings are to be removed, due to their poor structural condition, the re construction of new similar building forms with reuse of salvaged and matching original materials is recommended.