

Report of the Chief Executive

STOCK CONDITION SURVEY1. Purpose of report

To advise on the results of the stock condition survey completed recently on our domestic housing stock, including the results of invasive surveys completed on our non-traditional property types and the proposed plan to use the results.

2. Background

The last stock condition survey was completed in 2008. It is good practice to undertake a regular review of the condition of the housing stock and to inform programmes of work and any remodelling needed to financial projections going forward. In September 2019 Housing Committee approved the contract for a Stock Condition Survey to be completed.

3. Detail

A sample size of 25% of the total housing stock was achieved, including blocks with further additional invasive structural surveys of our non-traditional properties which are made up of Timber Framed, Tru-Steel, In-situ Concrete (No Fines), and Unity Construction. Based upon the stock data collected the Stock Condition report includes an assessment of all current and future repairs and maintenance liabilities over a 30 year period with a 5 and 10 year summary of required investment to maintain the standard including information about future stock investment.

Details of the scope of the survey and the assessments included in the survey are included in appendix 1. Further tables to show the findings of the survey are included in appendix 2.

4. Financial implications

The fully analysed data will be considered including the projected costs for short, medium and long term positions. This will in turn influence a review of the Council's 30 year housing asset management plan, future financing and budgets. A further report will be presented on the full findings and financial impact.

Recommendation

The Committee is asked to NOTE the detail of this report, and that further information will follow as part of a review of the Housing Revenue Account Business Plan.

Background papers

Nil

APPENDIX 1**Scope of the survey**

The scope of the survey included the following key components and considerations:

- A general building description, archetype, location, accommodation type
- Details of adaptations and alterations identified
- The general property condition measured against the Governments Decent Homes Standard including the Housing Health and Safety Rating System including, but not limited to, the structure and all structural elements, building fabric and envelope components, services, facilities, fixtures and fittings, kitchens, bathrooms, electrical, heating and hot water systems, communal areas and external environment and ancillary assets.
- The condition of building components and remaining life expectancy.
- Main wall construction – traditional and non-traditional forms of construction
- Stairs and balconies
- Fire safety
- Photographs of all elevations showing the structure including the roof, and any notable issues

Information included in the report

Based upon the stock data collected the Stock Condition report includes an assessment of the following:

- All current and future repairs and maintenance liabilities over a 30 year period with a 5 and 10 year summary of required investment to maintain the standard including information about future stock investment
- Stock wide elemental failings and any identified issues or priorities for the Council to consider
- Establish the properties that meet the current standards
- Identify the levels of failure by element, condition and current and future investment needs
- Allow the results to be presented and costs to be modelled through the 30 year Housing Revenue Account Business Plan including any refinement

Summary of the Main Report Findings

Catch-up Repairs (repairs that are required to remove defects that are observed in a property during a survey) were identified as being £124,690 which results in an average of £28.26 per property. The most significant costs have been identified against repairs for windows and bathrooms. Catch-up repair costs were only recorded for components viewed as essential and this consisted of the following: bathrooms, kitchens, windows, main roof covering and secondary roof covering.

The overall Planned works costs over the 30 year business planning period total £149,755,058 which equates to an average of £33,950 per property. This can be

further broken down to an average of £1,132 per property per year. Further information can be found in Table 1 in appendix 2.

A total of 133 properties, equating to 3.02% of the Council's stock were found to be failing the Decent Homes standard. This figure was estimated using the sample of properties surveyed. Further information can be found in Table 3 in appendix 2

When summarising all costs for liabilities, which includes catch-up repairs, planned maintenance works, preliminaries, fees and contingencies, the figure currently stands at a total of £181,360,848 over the 30 year period averaging £41,115.58 per property. When broken down further this works out at an average of £1,370.52 per property, per year. This is shown in Table 2 in appendix 2. The preliminaries, fees and contingencies that form part of the summary of all cost tables are indicative values included as part of the cost calculation process and are not necessarily representative of the actual values within the Council's business plan.

Further work

The next phase of the work is to fully analyse all the data that has been collected, how it has been interpreted and then applied to the results of both the main stock condition report, and that for non-traditional properties. Once fully analysed these results will be compared to existing data, and the two combined within the Housing Management System.

The new and existing data will also be used to help inform and develop a revised 30 year Asset Management Plan and Asset Management Strategy. This will include a profile of work packages needed to continue to meet the Decent Homes Standard, plus a review of the Broxtowe Standard. It will also inform future budget projections. This will help protect and maintain the standards of our housing stock in the short, medium, and long term.

Main Stock Condition Report

The table below shows the archetypal breakdown of the stock, excluding leaseholder properties:

Archetype	BBC Stock	% of Stock
1 - Pre 1945 Small Terraced Houses	126	2.60%
2 - Pre 1945 Semi-detached Houses	329	6.80%
3 - All other pre 1945 Houses	212	4.38%
4 - 1945-64 Small Terraced Houses	4	0.08%
5 - 1945-64 Large terrace/semi-detached/detached Houses	579	11.96%
6 - 1965-74 Houses	96	1.98%
7 - Post 1974 Houses	189	3.90%
8 - Non-Traditional Houses	48	0.99%
9 - Pre 1945 Low Rise Flats	0	0.00%
10 - Post 1945 Low Rise Flats	1726	35.66%
11 - Medium Rise Flats	413	8.53%
12 - High Rise Flats	0	0.00%
13 - Bungalows	688	14.21%

Blocks	421	8.71%
Grand Total	4832	100.00%

Archetype 10 (Post 1945 low-rise flats) properties are the most common, with over 35% of the stock found within this category. Archetype 13 (Bungalows) is also a popular archetype with 14.21% of the stock within this category. In total, flats account for 44.19% of the BBC stock.

The property archetype least prevalent is Archetype 8 (Non-Traditional Houses) with just 48 properties (0.99%) of all properties being found in this category. Similarly, Archetype 6 (1965-74 Houses) forms a small proportion of BBC's stock with only 96 properties (1.98%) found in this category.

Archetype	Total BBC Stock	% of Stock	Nr Surveyed	% Surveyed
1 - Pre 1945 Small Terraced Houses	126	2.60%	58	46.03%
2 - Pre 1945 Semi-detached Houses	329	6.80%	115	34.95%
3 - All other pre 1945 Houses	212	4.38%	93	43.87%
4 - 1945-64 Small Terraced Houses	4	0.08%	4	100.00%
5 - 1945-64 Large terrace/semi-detached/detached Houses	579	11.96%	138	23.83%
6 - 1965-74 Houses	96	1.98%	40	41.67%
7 - Post 1974 Houses	189	3.90%	78	41.27%
8 - Non-Traditional Houses	48	0.99%	26	54.17%
9 - Pre 1945 Low Rise Flats	0	0.00%	0	0.00%
10 - Post 1945 Low Rise Flats	1726	35.66%	199	11.53%
11 - Medium Rise Flats	413	8.53%	161	38.98%
12 - High Rise Flats	0	0.00%	0	0.00%
13 - Bungalows	688	14.21%	189	27.47%
Blocks	421	8.71%	115	27.32%
Grand Total	4832	100.00%	1216	25.17%

It is normal practice within the social housing sector to carry out sample surveys for the purpose of business planning or stock valuation. Typically, for business planning purposes, a stratified survey sample can be expected to be in the region of 10%. For valuation purposes prior to stock transfer, the sample size is usually higher, around 20%. In this instance, MDA has completed surveys to 25% of the Council stock.

The guidance on stock condition surveys issued by the Government ("Collecting, Managing and Using Housing Stock Information – A Good Practice Guide, Vol. 2 – Key Principles and Methodological Issues - Annex I") describes a method of calculating the statistical reliability of a completed sample survey. The guidance describes how it is possible to be 95% confident that a measurement made in a particular survey is within two standard errors of the true answer. Government guidance states that the confidence level across the stock should be less than 4%. In this instance, MDA have achieved a confidence level of 0.33%, making the stock condition survey sample and its results statistically reliable.

The table below gives a breakdown of the statistical reliability derived from the survey and inclusion of data supplied by BBC within archetypes and across all stock. For statistical testing, blocks are excluded from these tables.

Archetype	Total Nr	Nr Surveys	Sampling Fraction %	P(event) Failure Rate	Corrected Standard Error
1 Pre 1945 small terrace houses (<70m ²)	126	58	46.03	8.73%	2.73%
2 Pre 1945 semi-detached houses	329	115	34.95	6.38%	1.84%
3 All other pre 1945 houses	212	93	43.87	0.94%	0.75%
4 1945-64 small terrace	4	4	100.00	0.00%	0.00%
5 1945-64 large terrace/semi-detached/detached houses	579	138	23.83	3.45%	1.36%
6 1965-74 houses	96	40	41.67	6.25%	2.94%
7 Post 1974 houses	189	78	41.27	4.23%	1.75%
8 Non-traditional houses	48	26	54.17	2.08%	1.92%
9 Pre 1945 low rise (1-2 storeys) flats	0	0	-	-	-
10 Post 1945 low rise (1-2 storeys) flats	1726	199	11.53	2.49%	1.04%
11 Medium rise (3-5 storeys) flats	414	161	38.89	4.59%	1.29%
13 Bungalows	0	0	-	-	-
Grand Total	688	188	27.33	0.29%	0.33%

Non Traditional Stock Report Executive Summary

In addition to the main stock condition survey MDA has conducted an investigation of our stock of non-traditional properties, which seeks to establish the structural condition of the properties and recommend appropriate repairs to maintain structural integrity for at least a further 30 years of serviceable life and budget costs associated with this.

The following non-traditional property types are included within the Council stock:

Non-Traditional Property Type	Total Nr of areas	Nr of units	Nr of blocks
Timber Frame	2	54	0
Trusteel	1	14	0
Wimpey No-Fines	1	25	0
Unity Flats	1	39	6
Total Nr of BBC Owned Non-Traditional Properties		132	6

Further surveys are planned to additional properties identified during the surveys that we believe may be of similar non-traditional construction.

The structural condition of the properties was assessed from a combination of visual and intrusive surveys of a representative sample number of each property type. The Timber Frame and Trusteel properties are in their original structural form whilst the Unity properties have benefited from a Permarock cladding c20 years ago and the Wimpey No-Fines properties have benefited from an external wall insulation (EWI) system.

The results of this survey indicate that the structural integrity of the majority of the non-traditional stock can be maintained for a further 30 years of serviceable life if appropriate repairs and regular maintenance measures are implemented to protect the structural components from the risk of ongoing deterioration.

The Timber Frame properties are in a reasonable condition and do not specifically require enhancement. However, they would certainly benefit from the application of EWI to create a dry, warm environment for the structural members and enhance their thermal performance generally. For the purposes of this report it is assumed these improvements are not a priority. Therefore the structural members should be monitored for deterioration at least every three years.

The Trusteel properties are still in their original condition and will achieve a further 30 years serviceable life providing remedial repairs are undertaken. The recommended remedial repairs include; repairing any gaps to party walls, removal of brickwork to allow a thorough inspection of each stanchion base, clear all cavities of rubble and cavity wall insulation, repair/replace any severely corroded stanchion feet, paint all stanchion feet with a protective paint and apply an EWI system. In the event these improvements are not made the structural members should be monitored for deterioration at least every 3 years.

Both the Timber Frame and Trusteel property types require a dry environment within the cavity walls to avoid the accumulation of moisture at post/stanchion feet which will require regular maintenance of unimproved properties and consideration of the removal of cavity wall insulation.

The No-Fines properties have a more recent cladding system in place and whilst the No-Fines concrete is likely to be affected by the problem of carbonation there is little embedded reinforcement in walls. The concrete used in forming the lintels has been shown to have generally low to medium chloride content and the EWI is likely to have arrested any carbonation. Therefore, routine periodic maintenance and a timely renewal of the EWI system should afford a 30 year operational life.

The observed repairs have to some degree prolonged the serviceable life of the Unity properties however, the works undertaken are not up to current standards and the cladding has exceeded its anticipated design life. Enhanced repairs will be required in order to achieve a further 30 years serviceable life. The recommended enhanced repairs include; repairing any gaps to party walls, stripping the existing cladding, removing the original Unity cladding panels and replacing with a new timber frame, installing remedial wall ties to gable and ground floor elevations, applying a new EWI system, enclosing the exposed prefabricated reinforced concrete (PRC) columns along with routine maintenance.

To allow us to prioritise budgets, a traffic light system has been applied to the recommended repairs reflecting the timing/complexity of different work involved, whereby: -

Red = Significant Works Required (e.g. Significant Intervention works)

Amber = Moderate Works Required (e.g. Remedial works including EWI)

Green = Minor Works Required (e.g. Routine Maintenance)

No allowance for periodic inspections has been made but a nominal figure for mid-life uplifts of Trusteel, Wimpey No Fine and Unity properties is included in the budget.

Table 6 in appendix 2 summarises the repair requirements of the non-traditional properties to achieve a further 30 years serviceable life.

Beyond these interventions they recommend checking all un-inspected party walls for any deficiencies and repair gaps where required, regularly inspect and make good damage to envelope treatments and carry out timely mid-life uplifts and renewals. They also suggest consideration be given to clearing the cavities of Trusteel and Timber Framed properties and applying EWI to the latter.

These findings will also be included in the development of the revised plan and strategy.