

<b>Report To:</b>	<b>CABINET</b>	<b>DATE:</b>	<b>21 JANUARY 2019</b>
<b>Heading:</b>	<b>DIGITAL SERVICE TRANSFORMATION (HOUSING)</b>		
<b>Portfolio Holder:</b>	<b>CABINET MEMBER (OUTWARD FOCUS), COUNCILLOR JOHN WILMOTT</b> <b>AND CABINET MEMBER (JOINT FOCUS), COUNCILLOR CHRISTIAN CHAPMAN</b>		
<b>Ward/s:</b>	<b>ALL</b>		
<b>Key Decision:</b>	<b>YES</b>		
<b>Subject to Call-In:</b>	<b>YES</b>		

### Purpose of Report

In reference to the previous report to Cabinet on 14th June 2018, approval is now sought for recommended investment in technology required to enable a more customer centric, customer responsive and productive housing repairs function, as supported by the business case detailed in this report.

### Recommendation(s)

- 1. To approve the purchase and implementation of a mobile Housing Repairs solution incorporating a repairs module, associated licences, handheld devices and Dynamic Resource Scheduler (DRS).**
- 2. To recommend to Council approval for the release of a maximum of £250k Housing Revenue Account (HRA) funding for upfront implementation costs, and a maximum of £30k annual costs for maintenance and support to award a contract for the above solutions.**
- 3. To include the required repairs module, and associated licences, within the existing contract with Capita, in line with the procurement regulations.**
- 4. To procure a DRS solution via a relevant procurement process for 2 years with an optional extension of two further years.**
- 5. That the delegation is granted to the Director of Housing and Assets to extend the contract(s) +1 +1 at the end of the 2 year contract term.**

## **Reasons for Recommendation(s)**

Many organisations and councils have moved towards customer centric 'digital first' approaches which provide convenient and accessible services in order to meet customer expectation, investing in technology solutions to transform the way services are delivered, thereby enabling and facilitating improved customer focus, whilst also improving efficiency, productivity and reducing costs.

Our technology landscape is outdated, most systems are at end of life and we have no real online 'offer'. The Housing Repairs function lags significantly behind other Housing Providers, lacking modern technical capabilities, preventing it from working in a more flexible and efficient way, whilst being able to deliver a more effective (and enhanced) service to customers.

This report presents to Cabinet a business case, indicating how investment in technology would be a catalyst for delivering a more customer focussed housing repairs function. The business case summarised in this report also indicates strong potential for payback of the required investment realised through a more productive and agile re-structured housing repairs workforce, with reduced reliance on sub-contractors.

The Council faces future challenging financial targets in order to maintain a balanced budget. We are confident that the proposed investment will deliver future savings and efficiencies as demand for services and residents' expectations of the quality of front-line services continue to rise.

The proposed customer centric changes facilitated by IT investment in housing repairs are part of the council's digital and service transformation programme which is aimed at addressing the joint challenges of the need to continue to make savings with the increasing expectations of customers for a high-quality service. The core element of the digital transformation programme is to have organisation wide customer focus, putting the customer at the heart of everything we do, challenging our approach to delivering services, as well as looking at how we can use digital technology and new ways of working to improve how we operate, delivering an improved customer experience.

The transformation review of the repairs service has incorporated consideration of role changes including mobile working, for which a re-evaluation of relevant job roles is underway which will allow those staff currently on Ashfield Homes work contracts to transfer over to ADC contracts thus creating parity across the Council workforce.

As part of the Council's preparations for the implementation of the GDPR, it is apparent that the Council's current systems and processes in relation to officers and operatives printing off data for home visits and repairs possess a significant potential breach of data protection legislation such that a more secure process is required urgently to reduce this risk.

The required financial envelope for the upfront costs of this project is proposed as a maximum of £250k for implementation and application licensing, with ongoing support and maintenance costs should not exceed £30k per annum. These costs will be funded via the Housing Revenue Account (HRA). This is within the financial estimates provided by the current housing line of business system supplier. The exact costs cannot be guaranteed until the procurement evaluation process is complete.

The introduction of modern working arrangements, particularly mobile working and dynamic work scheduling will result in large productivity gains. However, in order to deliver the savings and productivity gains, additional investment in current IT infrastructure and resources will be required.

## **Alternative Options Considered**

Do nothing is not considered an alternative based on the significant and pressing operational and strategic benefits which can be delivered by implementing new technology which facilitates improved ways of working, benefitting both the customer and the council. Expected customer benefits would be:-

### **Faster Service Delivery**

- The housing repairs service will be faster and more responsive, being able to complete more responsive repairs daily, reducing the time it takes for issues to be fixed.
- Whilst on site operatives will be able to record any additional work required, immediately allocate the work, obtain the materials and complete the work without the requirement for further visits.
- Reallocation of resource will enable void turnaround times to be reduced allowing prospective new tenants to move in quicker.

### **Enhanced Customer Experience**

- There will be more flexibility in scheduling jobs and reacting to situations as they arise, being able to respond more effectively to customer needs.
- Tenants will be proactively informed with confirmations and reminders via text message the evening before, on the morning of the appointment and also a reminder whilst en-route, thereby reducing no access and re-bookings and increasing first time fix rates, reducing the need for further visits which can be inconvenient.

### **Enabling Customer Independence**

- Investment will facilitate future self-serve and 'self-appointing' opportunities.
- Using digital devices tenants will be able to report, book, and track progress of repairs online, at a time and place of their choosing, increasing accessibility and engagement

## **Detailed Information**

### **1. Background**

Over recent years Housing Providers have significantly altered their approach to the delivery of frontline Housing Services, this is principally due to; advancements in mobile technology, the need to enhance how customers are dealt with as individuals and to also help mitigate additional cost pressures such as the 4 year 1% rent reduction and the potential income loss created by the introduction of Universal Credit.

As Ashfield Homes, the Housing Service lacked adequate IT investment and this trend has continued to a point where the service now lags significantly behind other national and local Housing Providers with the current service delivery model being questioned by both customers and staff alike. Our last two previous accreditation visits from Housing Quality Network have suggested that the service move to mobile working with required IT investment in order to retain recognition as a good/excellent housing provider.

The Council currently provides responsive repairs services to approximately 6,800 properties, responding to around 42,000 calls per annum to the Repairs Call centre and delivering around 39,000 responsive repairs annually of various kinds.

## 2. Current Methodology – Impacts on the Customer/Tenant

Currently service response to a customer repair is determined by a priority timescale which is set by the Council based on the Right to Repair Regulations, rather than repairs completions appropriate to customer needs and expectations. Most repairs requests are received via telephone to the Repairs Call Centre.

Due to outdated technology solutions, separate visits can often be made to the same customer for every repair they raise (even if several are active at the same time), despite manual administrative processes aimed to combine visits to the same property. This is further impacted by the allocation of work to specialist and distinct repairs trade roles, requiring additional visits if the job demands two or more separate trades to complete the repair.

Current working arrangements and working practices are inefficient. Operationally, Repairs Operatives come in to the depot every morning to pick up their job tickets, materials and van for the day and then return back to the depot in the evening (in works time) to return the van. Jobs are manually organised, with Team Leaders printing off job tickets, sorting and allocating to trades operatives on a daily basis. This is wasteful and time-consuming and is a major contributor to poor productivity, which has a knock on impact of how fast repairs can be completed.

There is little flexibility in scheduling jobs and reacting to situations such as operatives running late or booking emergency orders, which can impact upon the customer experience. For example, any changes to/ or further repairs noted whilst attending the property cannot be immediately allocated and would require raising of further work tickets and future visits, inconveniencing the tenant.

The current arrangements for reporting repairs electronically are very underdeveloped in comparison with many other organisations. There are limited opportunities for customers to report repairs directly via modern systems such as web-based self-reporting, repair diagnostic and ordering systems. There are very limited opportunities for customers to review, progress chase, update and change repairs appointments. Text messaging and other modern electronic means of communication with customers is underdeveloped. Absence of a facility of this type, enabling customers to access the service directly is recognised as a key weakness.

## 3. Current Methodology – Operational Impacts

The current repairs ordering processes are traditional, paper-based systems, with paper based works instructions and materials ordering systems. Works ordering, closure and financial completion systems are inefficient and time-consuming. Current processes and workflows are outmoded. They also lead to a lot of duplication and repetitive processes in day-to day tasks such as job completion and amendments.

As mentioned previously, current working arrangements and working practices are inefficient.

With little foresight or intelligence as to what repairs are in the system and who is undertaking them, the stores facility has to hold enough materials to cater for all eventualities regardless of demand or seasonal issues. There are gaps in the adequacy of current system capability for easy to access to meaningful data

The introduction of appropriate technology will enable operatives to receive work to their device the night before and attend site straight from home the following morning, with the system allocating the first job as close to home as possible (recognising the skills needed) to reduce travelling time and associated costs.

Time will be saved each morning by operatives not queuing up to pick up their van, materials and job tickets. The new system capabilities will enable 'planner/scheduler' roles to have detailed understanding of what stock is on the van and required replenishment. Similarly at the end of the day the operative can work later in the properties as they have no need to travel back to drop the van off at the depot site.

Studies undertaken by both the Housing Quality Network and also one of the potential solution suppliers indicates efficiencies yielded by the van movements will improve productivity enabling each operative to be able to typically perform at least one extra job per day.

It is important to recognise that the Council will in any given year contract out anywhere between £5 and £9 million pounds of additional work to external contractors to do repairs, servicing and improvement works to Council Houses and/or corporate buildings. Given that the contractor will make a good margin on such work there is no reason as to why the extra capacity gained via the DRS is not used to undertake this work ourselves in-house.

Currently, 21% of reported responsive repairs are completed by sub-contractors which totals approximately £474,800 per annum. This includes elements of specialist work, such as roofing, which cannot be completed by in-house resources.

#### 4. Technical Capability Gaps – Opportunities to Improve

The customer journey and operational process can be improved significantly by the implementation of a mobile working solution based around what is called a Dynamic Resource Scheduler (DRS):-

- A single optimised work plan for all tasks irrespective of if they are planned, cyclical, complex or emergency tasks for today, tomorrow, next week, next month, the next year etc.
- Matches the workload with the available resources and provides visibility for periods where an organisation is under or over-resourced
- Accept (from existing repairs back office) new work requests (jobs) and make optimised appointments bookings
- Work plans are optimised up to the point where jobs are dispatched to the field workforce
- Live feeds from worker mobile devices are then used to dynamically re-optimize the work plan in response to the emerging day; in order to ensure efficiency, customer service, and repairs targets are met

It should be noted that two versions of DRS are available which link to the Capita Housing system via existing licenced middleware. One is used commonly across the Housing sector (and with various Housing systems), the other is an existing scheduling system which will require further work to be fully optimised for a housing environment. The relative maturity of the systems reflects on the pricing and amount of work required in-house to develop the product specifically for Ashfield.



Example of scheduling screen

## Appointment Booking

Currently when repairs are reported via the Repairs Call Handling Centre (RCHC), customers are asked to express a preferred date / time. The RCHC do not have system capability to be able to view the availability of an appropriate tradesperson who is most efficiently located with appropriate skills whilst offering appointment slots.

Within the proposed solution, when a job is raised the DRS scheduler will use the location, the planning window, the Schedule of Rates (work required to be undertaken), any business / tenant information (such as language, gender, etc.), skills required, etc.

The scheduler will analyse the job requirements in real-time using algorithms to give the best matches to the available resources i.e. those in work and whose sectors cover the postcode area for the location, matching their skills, as defined in the scheduler, and combinations of the other system and user-defined tenant scheduling preferences.

The scheduler also calculates proximity to the location and calculates the global travel distances to the job for each available appointment slot and will display efficiency of the slots by highlighting the shortest travel time.

Appointment slots are then displayed as defined specifying am/pm and school run (this could be AM / PM only, 2 hour slots, all day slots, etc).



The slots displayed above are showing actual availability of a resource within that time slot and are also indicating the efficiency of that slot (based on travel time). As an example, the green slots might mean 0 – 20 minutes travel (from another job within that slot), the teal might indicate 20 – 35 mins travel, azure blue might indicate 35 – 60 minutes travel, and yellow greater than 60 minutes travel.

## Automated Appointment Confirmation and Reminders

The proposed solution is capable of sending automated text message and email reminders to tenants, typically (but not limited to) at the following stages of a job:

- Confirmation of Repair Appointment at time appointment booked
- Reminder of appointment (typically the evening before)
- Reminder of appointment (on the day of the appointment)
- On Route message (as the tradesperson indicates they are traveling to the job via the mobile application)

These pro-active notifications are proven to reduce no-access with current DRS supplier reference sites demonstrating 50%+ reductions. The council's current on-access performance is reasonable and we expect further improved performance. Measures will be put in place to assess the extent of the successful delivery of benefits of the proposed IT investment.

## Further Potential

The investment sought for additional technology capability is intended to most significantly improve the operational housing repairs function, with associated productivity efficiencies. With intended future investment in 'core' organisation wide customer focussed solutions, as part of the overarching Digital Transformation Programme, there will be future opportunities to integrate these solutions in order to offer customers the ability to report a repair, select and optimise an appointment on-line, without any potential involvement with the contact centre, channel shifting demand to suit the customer.

Naturally for this transformation to happen it requires the purchase of the DRS and the mobile solutions and devices to both allocate the jobs in real time and for operatives to feedback when they finish a job and what materials they have used in order to maintain the stock levels and re-ordering requirements.

## 5. Skills Gaps – Opportunities to Develop Employees

The skill base of the operatives is traditional and trade based. Modern and up-to-date DLOs have a high level of multi skilling and flexibility in the skill base of the workforce. The lack of multi skilling is a further barrier to productivity.

Critical to the success of the DRS system are also changes to how our workforce operates. First and foremost operatives will need to become 'multi skilled' in order to complete a wider variety of repairs e.g. a plumber will not only need to fit a bath but then also need the skills to apply the tiles around it (to negate the need for another operative to attend) and then perhaps in addition ease a door within the property, because the customer has raised a separate repair for it to be done.

To this end the operatives can also gain a formal qualification by the virtue of being recognised as a multi skilled trades person. (This has already been discussed with staff and in reality is not such a major step as it already happens on many jobs either in a work capacity or if they were doing work in their own/relations homes).

Often multi skilling is implemented as part of mobile working since, one of the key elements of the delivering an efficient repair service is to allocate work to appropriately skilled trades operatives. The more multi skilled operatives within the workforce of the organisation then the easier it becomes to allocate work and manage resources.

Many organisations have achieved significant efficiency gains by removing the need for the duplication of visits, multiple trade visits to properties and associated follow on work from secondary trades by increasing the level of multi skilling in the workforce.

A restructuring of the DLO would also be required in order to maximise the benefits of mobile working and more flexible working arrangements.

### **Investment Costs**

Indicative costs associated with the required investment in technology are as follows;

Upfront Costs:-

- Repairs module £17,820
- Licences £40,390
- DRS £149,380
- Allowance for Mobile Devices & Hardware £40,000

**Sub Total £247,590**

Annual Costs:-

- Annual Support costs **£26,000**

The maximum estimated total sum of contracts will be £351.2k over four year contracts. The exact costs cannot be guaranteed until the procurement evaluation process is complete.

Potential upfront HR associated costs have not been estimated or factored into this business case as the restructure associated with the technology investment and changed ways of working has not been finalised. This is scheduled for completion by early summer 2019. However, due to redeployment opportunities as a result of vacancy levels within the service, this is not expected to be significant.

### **Expected Efficiencies and Payback**

1. Increased Productivity and Reduced Sub-Contracting Costs

The housing repairs service currently sub-contracts a significant amount of work, particularly that related to plumbing and heating, with anything between 2 and 4 sub-contract engineers attending the depot operations counter daily to collect work.

The potential improved productivity associated with the implementation of a DRS has been quantified as follows:-

Current Position

Number of responsive plumbing and heating engineers when fully resourced internally	10
Average number of jobs completed per day per operative	4
Total plumbing and heating jobs completed per day	40
Total plumbing and heating jobs completed per year (x 200 working days per year)	8000
Average labour job cost of plumbing and heating sub-contractors	£45



## Revised Position

Number of responsive plumbing and heating engineers when fully resourced internally	10
Average number of jobs completed per day per operative – increase of at least 1 job per day	5
Total plumbing and heating jobs completed per day	50
Total plumbing and heating jobs completed per year (x 200 working days per year)	10000
Average labour job cost of plumbing and heating sub-contractors	£45
Additional jobs completed internally	2000
<b>Sub- contractor efficiencies (2000 less jobs at £45)</b>	<b>£90,000</b>

Modelling based on improved productivity also indicates the potential for additional efficiencies from:-

- Other trades and reduced contracting out of work
- Ability of housing repairs function to take on other work streams which are currently contracted out, such as; 'major works' streams like replacement of kitchens and bathrooms, rewires; and repairs and improvements to non-domestic assets/ public buildings
- Reduced fuel costs and a reduction to the carbon footprint

The intention is to determine more accurately these efficiency opportunities 12 months post implementation of the technology solutions identified for investment. Data and efficiencies are also reliant on being able to recruit sufficient staffing members.

## 2. Revised Staffing Structure

With additional technical capabilities, the current ways of working and required skills and capacity of the housing repairs function have been reviewed indicating the following:-

Current staffing costs	£3,287,242
Proposed indicative staffing costs	£3,202,897
<b>Potential staffing efficiencies</b>	<b>£84,345</b>

The above costs are indicative and subject to job evaluation (scheduled to complete by March 2019)

## 3. Other Efficiencies

Reduced travel associated costs, such as fuel, are anticipated however are still to be determined  
Reduced printing and paper cost reductions are estimated at £2,000 per annum

## 4. Total Minimal Expected Efficiencies

Efficiencies analysed at this stage of the review indicate a total of around £176,000 savings per annum with significant potential for further efficiencies.

The table below identifies the payback period for the technical investment, of 3.4 years. There is a strong possibility of reduced development costs dependent on the outcome of the procurement evaluation for IT investment, which would make the business case and payback more beneficial. It should also be noted that completion of restructuring which will provide more in-depth knowledge of HR related upfront costs that have not been factored into this financial model, however is not expected to be significant.

The payback model implies a strong business case for investment and return, indicating around £76k net return by the end of the third year contract period and ongoing net efficiencies of around £150k per annum.

	Year:	0	1	2	3	4	5
Costs							
Total Cost Of Development		-247,590.00					
Minimum Revenue Provision (MRP)			0.00	0.00	0.00	0.00	0.00
Borrowing Cost		0.00	0.00	0.00	0.00	0.00	0.00
Internal Interest Rate Lost		0.00	0.00	0.00	0.00	0.00	0.00
Other costs (e.g. maintenance)			-26,000.00	-26,000.00	-26,000.00	-26,000.00	-26,000.00
<b>Total Expenditure</b>		<b>-247,590.00</b>	<b>-26,000.00</b>	<b>-26,000.00</b>	<b>-26,000.00</b>	<b>-26,000.00</b>	<b>-26,000.00</b>
Potential Return / Saving			58,666.67	176,000.00	176,000.00	176,000.00	176,000.00
Cumulative Present Value		-247,590.00	-214,923.33	-64,923.33	85,076.67	235,076.67	385,076.67
Discounted Cashflow		1.000	0.966	0.934	0.902	0.871	0.842
<b>Net Cumulative Present Value</b>		<b>-247,590.00</b>	<b>-207,655.39</b>	<b>-60,606.63</b>	<b>76,734.28</b>	<b>204,855.73</b>	<b>324,224.22</b>
<b>Payback period (years)</b>	<b>3</b>				<b>3</b>	<b>4</b>	<b>5</b>
Net Cumulative Present Value	324,224.22						
Average Cumulative Present Value	64,844.84						
Return on Investment	131%				<b>2.4 years</b>		

## Implications

### Corporate Plan:

The implementation of an agile workforce will reduce the over-head costs of delivering the Housing Repairs service. This is money which can be used to both improve existing stock and potentially build additional housing units

New methods of working will allow for the alignment of staffing contracts across the Council, whilst assisting in staff development via initiatives such as a multi skilling qualification.

Modernising the Housing Repairs Service demonstrates a reinvestment of efficiencies gain through the transfer back in to front line services which directly interface with the customer.

### Legal:

The Council has the power to enter into contracts in order discharge its functions (Local Government Act 1972, s111 and the Local Government (contract) Act 1997, s1). The Local Government Act 1972 requires the Council to have regulations for how it enters into contracts. In addition to complying with all relevant UK and EU legislation every contract entered into on behalf of the Council must also comply with the Council's Contract Procedure Rules and the Council's Financial Regulations. The Council has approved standing orders relating to contracts.

Contract Procedure Rule 3 enables Chief Officers to recommend the use of Framework Agreements. The requirements set out in Rule 3 should be complied with when seeking to enter into a Framework Agreement, should this be the most appropriate route.

EU procurement regulations state that you can vary existing contracts by up to 50% of the original total value

In accordance with Financial Regulation B, approval of additional budgets falls to Council.

**Finance:**

Budget Area	Implication
General Fund – Revenue Budget	N/A
General Fund – Capital Programme	N/A
Housing Revenue Account – Revenue Budget	<p>Once the project costs are finalised following the procurement evaluation, the optimum funding solution will be implemented which will include some or all of the following funding sources:</p> <ul style="list-style-type: none"> <li>• Cashable savings from investment in the new technology</li> <li>• Revenue funding from the HRA Technology Investment Reserve</li> <li>• Prudential borrowing (if any up front technology investment elements of the project are capitalised) may not be required</li> </ul> <p>There could be potential HR related costs as a result of a future proposed restructure. These are still to be determined.</p>
Housing Revenue Account – Capital Programme	

**Risk:**

Risk	Mitigation
<p>Failure/non-compatibility of software/hardware</p> <p>The mobile vision is a significant departure from the current operation</p>	<p>Both software and hardware for Capita mobile working is fully operational in multiple other housing departments/providers</p> <p>DRS options are limited with availability of a tried and tested system, with some solutions still in development for the sector.</p> <p>Opportunity to work in partnership with potential suppliers in the development of can be examined through the procurement exercise.</p> <p>Other Housing providers have nearly a decade of experience of this model. ADC has strong connections with such organisations to assist and learn from.</p>

