RIDGE

PROPERTY & CONSTRUCTION CONSULTANTS

Homes for Haringey

NOEL PARK

FEASIBILITY STUDY

June 2018

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1. EXECUTIVE SUMMARY

Purpose of Report

This feasibility report has been prepared for Homes for Haringey to outline a proposal for works to be undertaken to 229 dwellings on the Noel Park Estate. The works include upgrading Tenanted properties to Decent Homes standard, internally and externally and external repairs to Leasehold properties. Both properties have outdated 1970 bathroom modular pods that have come to the end of their life expectancy. These pods single and two storey are to be replaced with modern day pods. Previous feasibility studies, undertaken by other parties and approved by Home for Haringey has confirmed that modular construction is the most time and financial efficient approach. This report has not looked at any other approach.

Scope of Report

The scope of this report is to comment on the feasibility of providing additional temporary accommodation to the rear of the properties to provide new decent homes standard bathrooms.

The report incorporates an outline design proposal, project programme, procurement options, feasibility stage order of cost plan. This is based upon a review of existing information issued by Homes for Haringey and early dialogue with the contracting market.

Design

The approach adopted has been to split the Decent Homes works and the modular construction Bathroom pods.

The feasibility of the Decent Homes works has been reviewed against the works undertaken by **REDACTED** under their framework agreement. This study has used the Homes for Haringey approved specifications.

The modular bathroom pods have been reviewed with the contracting market, engaging with **REDACTED** and **REDACTED**. This has identified that the design, manufacture and installation of the toilet pods is fully viable with both contractors having installed over 1000 similar type pods within London.

The Pod manufacturers will provide high quality finished units manufactured in a controlled environment off site and then delivered to site. The key to the works are the logistics in how the pod can be installed in one day, when it is craned over the existing dwellings into the rear garden. It has been successfully undertaken but requires good site management and tenant liaison. The development of the design will require identifying solutions for as much work to be undertaken prior to the replacement of the pods. This includes locating services ready for connections and installing new foundations under the existing pods using helical piles.

The services provision for the units needs to be considered carefully. There is currently drainage, water & power to the existing bathroom pods, and these will have to be maintained and adapted as necessary from the main buildings.

The design of the Leaseholder pods needs to be reviewed in the quality of the internal finishes and what happens with their existing sanitary ware and how this is financially recompensed.

Procurement

The decent homes works have previously been procured using an agreed schedule of rates for the specified works. A contract sum is developed from the stock condition surveys, which we would seek to remeasure once the works are completed.

Modular construction works are traditionally based on a design and build approach.

To procure the works under one main contractor will require further review of the form of contract.

It was deemed most appropriate to adopt one main contractor due to the significant amount of logistics required to make the project a success, it requires ownership on site.

Statutory Consents

Noel Park is deemed a conservation area. The works will require planning approval and subject to building control

Programme / Procurement

A draft program has been prepared and is included within this report. It has identified that the works can be completed by the end of 2019 or by the end of February 2020, depending upon the chosen procurement route. The programme has been developed based on progress of **REDACTED** works and advice from **REDACTED**

The works can be procured through the London Construction Programme (LCP) or via OJEU. The LCP route limits the number of contractors, who may not have the necessary experience.

Budget

An “Order of Cost Estimate”, has been prepared. This is based upon our knowledge of the current market, a review of the **REDACTED** rates recently used on the Decent Homes works and outline costs provided by **REDACTED**

The assessment has identified an anticipated project value in the order of **£ 16,008,000** excluding further investigations, planning applications, building control and VAT.

From the stock conditions provided these cost have been based upon 225 pods being replaced and 240 dwellings being upgraded under Decent Homes. This requires further review.

Next Steps

In commencing Stage 2-3 design the team will develop proposals to be coordinated with structural and building services. This will provide more accurate cost information.

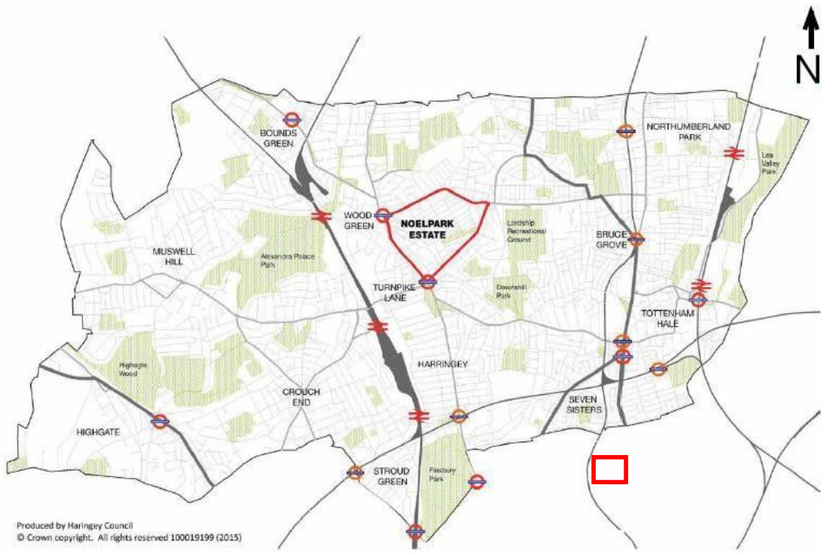
Stakeholder engagement needs to commence with internal and external stakeholders to set out the project strategy, timescales and decision making process.

The procurement strategy needs to be concluded with some soft market testing to gauge the interest and experience of the Main Contractors on the LCP frameworks. Interested needs to be market tested with the modular contracting market to test their interest and capacity in their manufacturing order book to deliver the works within the master programme

2. SITE OVERVIEW

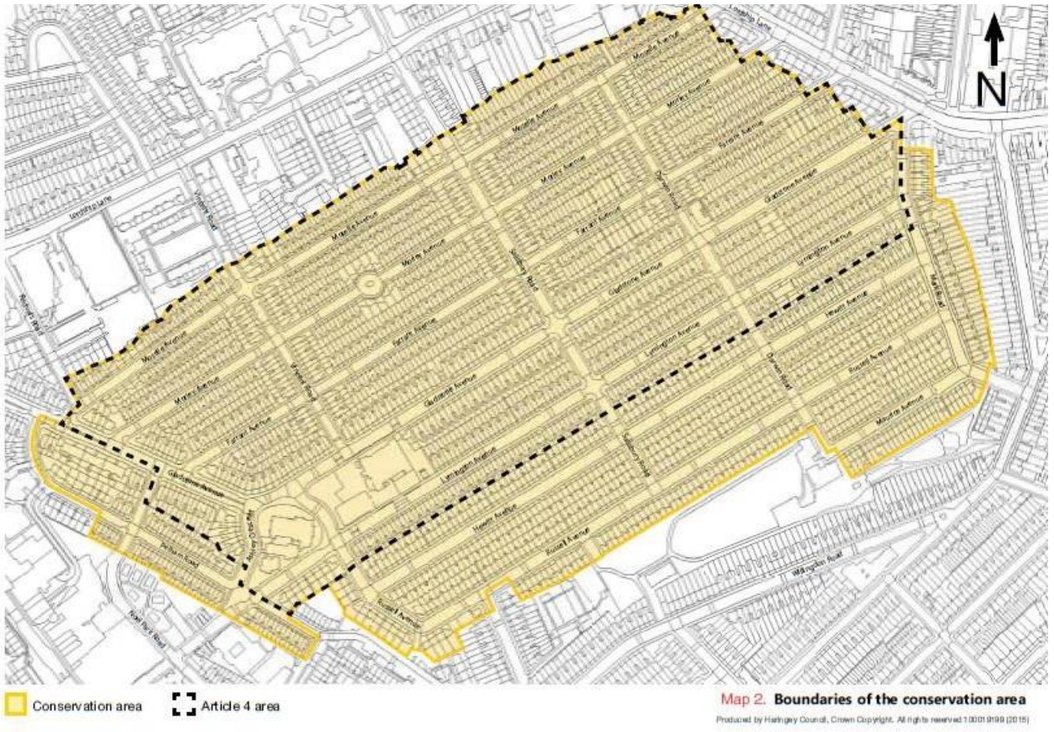
2.1 Site Location and Description

The proposed project is on the Noel Park Estate, of approximately 2000 terraces properties in Wood Green North London. The Estate was planned and developed by the Artisans, Labourers and General Dwellings Company between 1881 and 1927. The houses were designed to house the families of workers and artisans (skilled labourers) in fashionable cottage style dwellings. Today the area retains its homogenous appearance and much of its attraction and is easily distinguished from the surrounding Wood Green area.



Map 1. **Location and setting of the area**

An important aspect of the estate is the typology of the housing. The Artizans Company organised the properties in a number of different house types or classes. Smaller houses were available at lower rents and larger ones, with more rooms, at higher rents. Houses were also arranged in loose zones, with “higher” and “lower” class areas within the estate. In total, there are five different “classes” of houses. The plans were deep and narrow conforming to the traditional house plans prevalent at the time, with essential functions such as cooking and bathing in rear out shots.



Map 2. **Boundaries of the conservation area**

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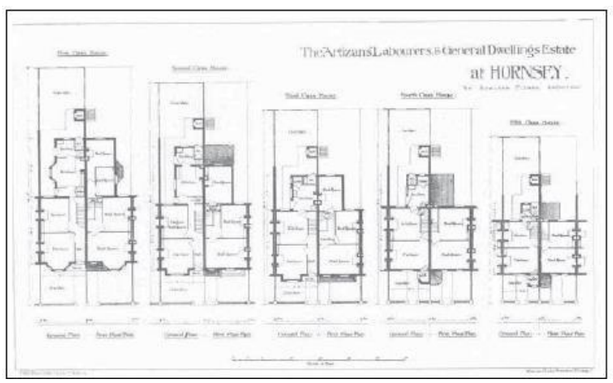
The larger “first class” and “second class” houses have two reception rooms and a hallway which led through to the back for the carrying of coal etc. the third, fourth and fifth class houses were of “half hall entrance” type. The fifth class had a tiny scullery, kitchen and parlour on the ground floor and two bedrooms above.

Each house was designed with a porch, scaled proportionally according to the size of the house. Each house irrespective of “class”, had a front garden bounded by a low brick wall with coping, capitals and railings. Houses were fitted out with fireplaces, flues and coppers. Some were connected to mains gas and electricity and all houses had running water. Each had a WC, accessed only from the yard “on the most approved sanitary principle” (The Builder, August 11th, 1883), but only first-class houses had toilets upstairs.



In 1966, the estate comprising of some 2175 properties was purchased by Haringey Council. Some modernisation, such as the introduction of gas had been undertaken by the Artizan Company in the early 20th Century. However, during the 1970's Haringey Council recorded that many of the houses lacked basic amenities such as baths, internal WCs and hot water systems. This resulted in a number of the properties having toilet Pods installed at the rear of the houses as a pre-fabricated structure. In addition, a number of the houses were also converted into flats with a number of the pre-fabricated structures being two storeys.

Photo of pods being installed in 1970s

During the 1980s, the Housing Act gave tenants the right to buy their houses. This resulted in a complex pattern of ownership, with some houses privately owned, some privately rented, some Council owned and some leased by the Council. The estate was designated as a conservation area in November 1982 in recognition of its special significance. Homes for Haringey have developed "Noel Park Conversation Area Appraisal and Management Plan".

2.2 Project Description

The works undertaken in the 1970's have come to the end of their life expectancy. 229 dwellings have been identified as requiring attention. The tenanted and leaseholder dwellings are to have external repairs and redecorations as well as new pods. Tenanted only homes to have "Decent Homes" works, (Kitchens, rewire, repair/ replacement heating systems etc.).

Existing surveys have identified that the toilet pods include asbestos as an insulation within the structural build up. This needs to be removed.

The design team have inspected a limited number of units to understand their condition. A tenanted and leasehold property was inspected.

View of rear of Gladstone Avenue

View of rear of Gladstone Avenue

External view of Tenanted Dwelling - Gladstone Avenue.

REDACTED

External view of Leasehold Dwelling - Gladstone Avenue

REDACTED

Internal view of Tenanted Dwelling Bathroom with shower–Gladstone Avenue.

REDACTED Internal view of Leasehold Dwelling Bathroom –Gladstone Avenue.

3. PROJECT OBJECTIVES

3.1 Background

The replacement of the Bathroom Pods has been a proposed project for Homes for Haringey for a number of years. The project has stalled due to a number of reasons, but funding has now become available for the works to proceed. It is a high priority project for Homes for Haringey.

3.2 Project Brief

Since the appointment of Ridge and Partners, Homes for Haringey have issued the historical information for review. From these documents a separate briefing document was developed. It was issued to Homes for Haringey in March 2018, comments were received from the client team in April 2018. The briefing report has been updated and appended to this report.

These words have been taken directly from the Project Brief Report, references to document can be found in the original report within the **appendix**.

EXECUTIVE BRIEF

Homes for Haringey require 229 dwellings to be modernised on the Noel Park Estate, with two sub projects.

The first project is to bring the internal environment and external fabric of the dwelling up to the Decent Homes standard.

The second project is to replace the outdated 1970's Bathroom pods that include asbestos with a modern modular constructed Pod and bathroom. The Pod as happened in the 1970's will require to be craned into location from the street, due to limited access to the rear of the properties.

Life expectancy of the Pod is to be 60 years for the external fabric and the internal bathroom furniture must have the ability to be replaced.

The old and replacement Pods must be switched in a day so that tenants maintain bathroom provision.

Tenants will remain in occupation during all the works.

The works are to be completed within three years, one-year design, two-years construction.

The construction budget, excluding fees, legal, statutory fees and Haringey costs is £12,000,000 +VAT.

Tenants and leaseholders are to be engaged with maintain a positive customer relationship.

DETAILED BRIEF

3.3 Scope of new works

Homes for Haringey, over the last few years have undertaken a number of feasibility studies and options appraisal on the works to be undertaken on the Noel Park Estate. The two key elements of works that have been identified and proposed to be taken forward are the replacement of the 1970's toilet Pods and the upgrading of the same homes to a Decent Homes standard.

The dwellings identified for works to be undertake total 229, these include houses and flats, split between Tenanted and Leasehold properties.

TABLE 1 - PROPERTY LOCATIONS AND TYPES

STREET	TENANT	LEASEHOLDER	TOTAL
Mosselle Avenue	22	0	22
Farrant Avenue	21	0	21
Gladstone Avenue	115	70	185
Morley Avenue	1	0	1
	159	**70**	**229**

In Appendix B, a plan of the estate identifies the locations of the dwellings with a separate schedule identifying the archetype, number, street names, single or double height Pod, tenant or leasehold.

3.3.1. Bathroom pods

The Pods have reached the end of their useful life and are now well beyond economical repair with prevalent defects such as structural movement, dampness and the presence of asbestos in the wall panels. Remedial repairs have been carried out to protect the timber structure and to encapsulate the asbestos as necessary to prevent fibre release.

Some of the Pods have defective foundations, some have been separated from the main building. There is evidence of surface degradation of the internal fixtures and fittings. The Pods are not thermally efficient and there is evidence of surface condensation within the dwellings.

A project Brief dated 21st April 2017 has been prepared, issued and approved by Homes for Haringey for the project brief, Appendix C which has been merged into this document.

This report identifies that the preferred method of construction is for the replacement Pod to be of modular construction, which is manufactured off site and craned into location in a single day. Homes for Haringey have confirmed that the tenants and leaseholders will remain living in their properties during the works, subject to an acceptable health and safety risk assessment. This is due to mitigating the additional cost of providing alternative accommodation.

In 2012 Homes for Haringey undertook some pilot Pods to test the viability of the proposed construction method. The pilot Pod specification for the internal finishes was prepared by **REDACTED**. This is to form the basis of the scope of works and specification, subject to stakeholder engagement.

Dimensions

The Pilot pods were the same dimensions as the original structures. Subject to planning requirements and foundations the new Pods should be no less than the current structure.

Statutory Requirements

The works are to be constructed to the current Building Regulations and the Local Planning Authority.

Foundations

It is identified that the existing foundations are in places failing. A solution needs to be identified for new foundations, where necessary, that do not impact on the programme of works. The Pilot Pod used an alloy helical piling system.

Life expectancy

The new structure needs to have an external fabric life expectancy of 60 years.

Internal fit out

Due to some Pods being tenanted and leasehold it is necessary that the internal Pod furniture can be replaced in the future in the same manner that a traditional bathroom furniture is replaced. This replacement must not compromise the external fabric.

3.4 Programme

The project formally commences on the 1st April 2018.

It is targeted that the works are completed within three years from commencement. One year for design and two years for works on site.

3.5 Budget

The estimated budget for the construction works are £12,000,000 + VAT.

Professional fees, legal costs, statutory fees and internal Home for Haringey costs are excluded from the construction works budget and allowed for elsewhere.

The 2012 prototype was installed by **REDACTED** Appendix D. This is to be the initial specification subject to current DDA requirements and variations requested and agreed with Leaseholders, if viable.

3.3.2. Decent Homes

Houses on the estate have been bought up to the Decent Homes standard. The dwellings highlighted within Table 1 have not been improved to the Decent Homes standard. The dwellings conditions need to be reviewed and brought up to the Decent Homes standard.

A stock condition survey of the Estate was undertaken in 2015, available for review. Homes for Haringey are aware that some works have been undertaken on the Estate and that the stock condition survey may not be up to date.

See appendix E, A Decent Homes: Definition and guidance for implementation June 2006 - Update

In Appendix F Homes for Haringey have issued their approved specifications for the Decent Homes programme. These include

- M60 NBS Redecorations Performance Specification
- L10 Window Specification
- Kitchen Packages
- Yr4 M&E Scope
- HfH Window Specification
- HfH Electrical Programme Performance Specification
- H268 Agreed DH Materials Spec Kitchen Baths & Electrics
- Commissioning Brief and Standards document
- Capital Works Outline Performance specification V3 May14

4. PROJECT STRATEGY

4.1 Outline Strategy

From the development and issue of the Project Brief and generating a better understanding of the project Ridge and Partners have developed an outline project strategy, dated 6th April 2018 to Homes for Haringey. This report now expands on this original strategy.

These words have been taken directly from the Strategy Report, references to document can be found in the original report within the **appendix**.

DESIGN STRATEGY

4.2 Decent homes specification

The design team will work with the project managers within Haringey who have been working on the Decent Homes project to understand how the specifications have been used to provide cost certainty and quality.

It would not be economical or practical to inspect each house to prepare a full schedule of works. From the existing stock condition survey provided it is proposed that we will inspect all the properties externally from the street and take a sample number of tenanted and leasehold properties, between 10 – 20%, pending access arrangements to inspect in detail.

4.3 Pod design development

The design development of the pod needs to identify suitable suppliers who can develop a proposal to the approved brief and accommodate the logistics of installation.

Ridge and Partners have started to make enquiries to the market. It has identified that there are different sectors to the market. There are suppliers who provide modular elements that make up a whole building on a large scale, from hotels, classrooms, residential developments. There are also smaller scale suppliers who provide the type and size of construction similar to the bathroom pods. One company has installed over 1000 of similar pods across London. We are also aware of similar projects within Enfield Council.

The pods that we have identified are capable of being installed within one day and are externally finished so watertight.

4.4 Coordination of the design.

The design development of the project will require the two packages of the works to be coordinated. It is clear that the Decent Homes and pod installation works can't be undertaken at the same time in one dwelling as this will disrupt the tenant or leaseholder.

We have looked at the design coordination between the two packages of work and identified that there are a number of interfaces that need to be considered within the project in respect of procurement and logistics. The following interfaces need to be considered:

- Electrical supply to the bathroom pod
- Water supply to the bathroom pod
- Heating to the bathroom pod
- Gas supply to the bathroom pod
- The junction between the existing dwelling, which may not be vertical due to its age and a new pod constructed very accurately.

We need to understand how the existing services are connected and how we can best facilitate the connection with the new pods.

PROCUREMENT STRATEGY

4.5 Decent homes strategy.

In discussion with Homes for Haringey they have confirmed that the current Decent Homes framework has now expired. It was questioned if the current framework could be extended for the Noel Park works. The framework can be extended but Home for Haringey questioned if the additional Bathroom pods could be included within the scope of the framework and suggested that this was not appropriate.

4.6 Other public procurement strategies.

The works can alternatively be procured from existing public procurement frameworks

- CCS
- NHS SBS
- ESPO
- Etc.

The other strategy is that the works are publicly procured via a public notice. This can be undertaken through the London Borough of Waltham Forest who run the OJEU portal on behalf of Haringey.

4.7 Public procurement approval

Ridge and Partners have been made aware of the internal approval process for the appointment of a main contractor. If projects are over the value of £0.5m then they must go to Cabinet approval. This is a monthly approval meeting, but the approval process is an 8-week process. It requires a tender report; meeting minutes form the cabinet meeting and a statutory standstill period. This timescale will be accounted for in the overall programme.

Homes for Haringey have advised that should the finance for the project be switched from LBH to Homes for Haringey then the approval process for the appointment of a main contractor will be slightly quicker.

CONSTRUCTION DELIVERY STRATEGY

In parallel with the procurement strategy the sequencing of the works must be developed.

We are aware that there are two elements of works, the Decent Homes works, and the installation of the Bathroom Pod works. They are two completely different types of main contractors but require to be coordinated, as outlined in section 3.3 coordination of design.

We need to establish the best approach for delivery and how the risk is allocated around the works. The key risks are

- The removal of the existing asbestos and responsibility of the asbestos as it is craned out over the houses.
- The coordination of the installation of the new pods and the connection to services.
- Undertaking preliminary works prior to the new pod being installed and the existing pod remaining in situ.

- Stakeholder management and messaging to the tenants about the timing of the works, arranging access to the buildings.
- Management and responsibility of the crane, between removal of the existing pods, asbestos, installation of the new pod.
- Undertaking the role as principal contractor.
- Managing the programme of the works, the decent homes improvement works being completed prior to the pod installation.
- Managing the timing of the delivery of the bathroom pods to site so that the installation is not disrupted.
- Finishing the works, tidying site.
- The boundary of the site and who is managing the site, welfare facilities.

4.8 Low Risk approach

The lowest risk for delivery will be to appoint a single contractor to coordinate all the works. This may come a higher cost premium but provide greater cost certainty.

In selecting the use of one contractor we will need to review the market place to establish if the contractor should be a construction specialist, having a background in delivering “Decent Homes” or a modular construction contractor who specialises in having a background in delivering modular buildings.

From initial discussions within the market it would appear that the modular building manufactures are not established as “main contractors.”

REDACTED, a construction company installed bathroom pods in Enfield and sub contracted the manufacture and installation of the pod. The pilot scheme undertaken in Haringey led by the piling contractor, sub contracted the manufacture and installation of the bathroom pod.

The lowest risk approach appears to be identifying a construction led main contractor who has experience of undertaking Decent Homes works and the installation of modular buildings.

The secondary consideration of a main contractor led solution is how is the modular supplier procured. We are in the process of establishing some Modular manufacturers who have interest in undertaken the works. The options appear that we establish a single source manufacturer and specify that they must be used. Or we develop a performance specification that the main contractor can reach out to the modular market, that we have already been active within. This will require further discussion with the modular manufacturers.

4.9 High Risk Approach

The higher risk approach would be to procure the works to be undertaken as Decent Homes as one contract and then the Pod installation as another.

For all the risks set out above the coordination of these works is a risk that would sit on Haringey, which could be a publicity disaster if delay and poor site coordination occurs.

This approach has too many unanswered risks that can be reviewed further but if not managed correctly would have a programme and cost impact on the project.

PROGRAMME

4.10 Project programme

Our original brief was that the works would be a 12-month design period and 12-month construction period. Ridge and Partners believe that this can be improved upon.

4.11 Design and procurement Programme.

The design, procurement and statutory approvals for the works can be completed in 9 – 12 months.

The key driver to this will be stakeholder engagement and reaction from the tenants and leaseholders and the statutory notice periods, Section 20 notice. All the other factors of procurement and approval are known durations that can be managed.

4.12 Construction programme

From discussions regarding the progress of the Decent Homes works undertaken by **REDACTED** we have established that one site manager will on average deliver 10 homes every 4 weeks, dependent upon the scope of works.

Given that we have 229 homes that would equate to

92 weeks for one site manager.
46 weeks for two site managers
31 weeks for three site managers
23 weeks for four site managers

Regarding the installation of Pods, we have had an initial discussion with **REDACTED**, who have undertaken works for Enfield. They advised that on average they would lift 5-6 pods into location each day but target to get up to 10 pods. This is an installation period of between 9 weeks 1 day and 4 weeks 3 days.

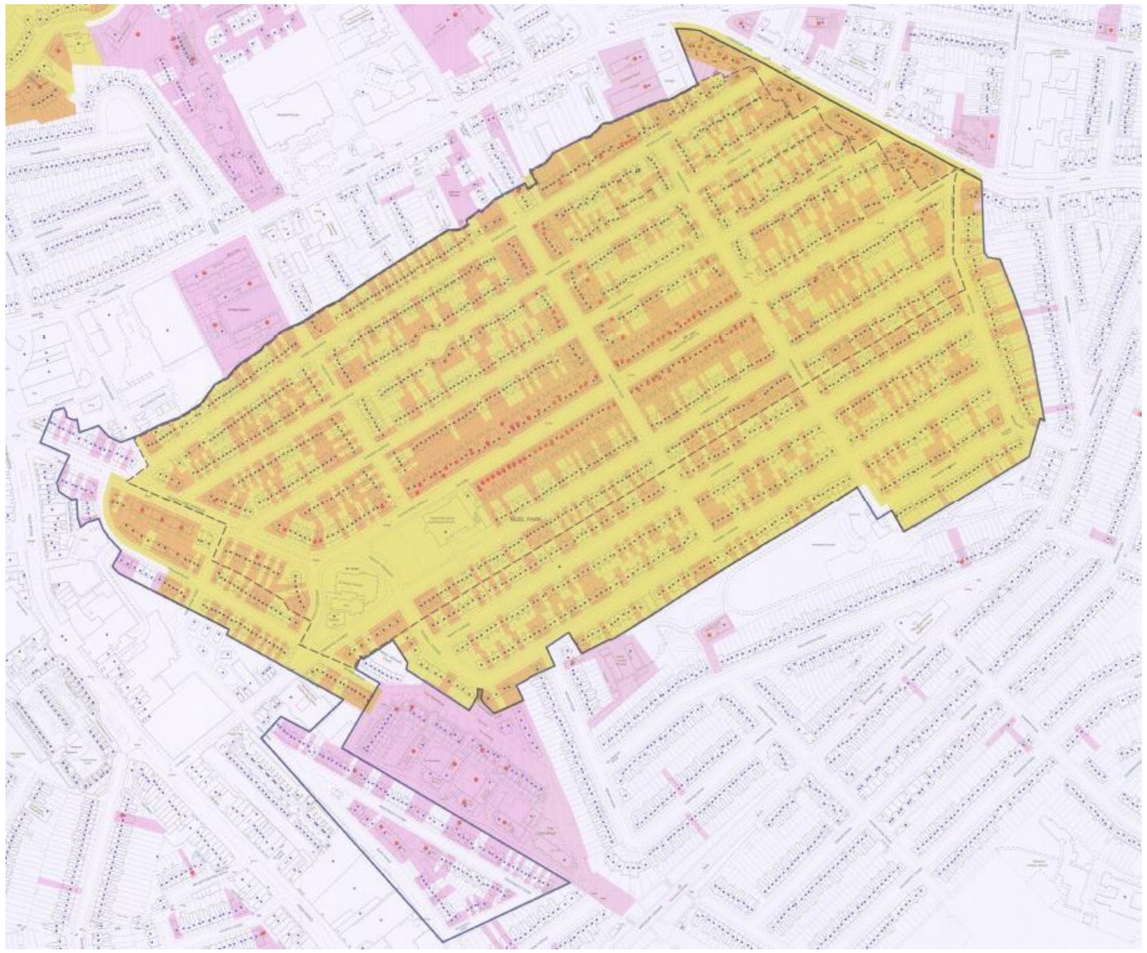
REDACTED suggested that they would use a 350tonne extending arm crane. They have a holding area in their factory where they will stockpile 5 days’ worth of lifting before they put them on a lorry to deliver them to site.

The driver for the quick installation is the cost of the crane hire, which is expensive.

Overall, we are suggesting that the site work could be realistically undertaken in the order of 30 – 40 weeks dependent upon unrestricted access to the properties from the tenants and leaseholders.

In summary this report will need to consider

- The potential unit supplier selection –a variety of suppliers have already been approached for initial advice;
- Planning limitations taking in to account pre-application advice previously received;
- Any restrictions imposed by building regulation requirements;
- Any logistical restrictions in installing the units;
- Any enabling works considered necessary;
- Any services restrictions or requirements.



Site Plan of properties on Noel Park.

4.13 Stage 1 Development of Project Strategy

As we move into the next stage of the project we will need to address

Structure

- Confirmation that subject to testing and further investigation the existing slabs can be reused
- A piling solution is identified that can be undertaken in advance of the pod replacement.

Architecture

- Identify a solution where Asbestos can be removed ahead of pod move day
- Various level of pod finish need to be considered as design develops with Client and resident involvement to ensure that all parties are satisfied.
- Identify if pods can be made larger to accommodate increased size of bathroom with carefully developed design details to accommodate existing building arrangements, such as windows.

MEP

- Boilers need to be in pods in leaseholder units due to kitchen installed by leaseholders.
- Fittings and layouts need to be similar to existing to work with existing drainage positions.
- New larger pods will need to be accommodate downpipes and surface water drainage positions.
- Mechanical, electrical and public health upgrades for Decent Homes and to accommodate new pods need to be done in the main building works ahead of the pod replacement works.

5. REVIEW OF EXISTING INFORMATION

5.1 Building Fabric Stock Condition Surveys

5.1.1. Introduction

Ridge and Partners have been provided with stock condition survey information from Homes for Haringey. This stock condition survey information is in Microsoft excel format comprising of several information tabs including address list, Attributes Survey, Internal Survey, External Survey, Communal Survey, HHSRS Survey, Energy Survey and Energy Results. The information appears to have been gathered in 2014, however, some elements look like they have been updated since. Homes for Haringey have confirmed that some works to various elements has taken place since the 2014 surveys.

For the Noel Park Project which includes decent homes works and internal repair and redecoration works, replacement bathroom pod rear extensions and external repairs and redecorations works the first four tabs contain the most useful information.

5.1.2. Stock Condition Survey Information

The first tab, the address list includes useful information such as whether the pods are single or double storey to the property, and if they are tenanted or leasehold properties in addition to the full address.

The second tab, attributes survey notifies us of the construction date, conversion date, floors, living room numbers, bedroom numbers, accessible adaptation works, external wall construction and conservation area status amongst other information.

The third tab, internal survey information details the date of survey, whether the data is cloned, number of steps to the dwelling, number of steps inside, front door material, whether the resident owns the door, front door installation date, front door life expectancy, kitchen type, size and year of installation, kitchen remaining lifetime and whether space is adequate, bathroom installation date, bathroom remaining life, central heating system details including boiler and heating distribution type, smoke, CO2 and heat detector systems, electrical wiring information, CCU information, loft insulation records, water tank details, acoustic insulation situation, accessibility alterations and cavity insulation position.

The four spreadsheets, external survey details include, roof coverings information, flat roof details, structural repair details, lightning conductor records, information on chimneys, rainwater goods, drainage pipes, porches, wall insulation, brickwork, structural defects, pointing, wall finishes, windows, doors, balconies, thresholds, garages, parking spaces, fencing, walls, gates, pathways, steps and DPCs.

5.1.3. Noel Park Estate, Property Details and Condition

Attributes Survey

From the stock condition survey attributes survey we are informed of general information about the properties. We are informed that the properties date from 1900 to 1910, they are a mixture of flats and houses, the majority are mid terrace units with a few end of terrace properties present. They are all dwellings with their own entrance with the majority being one or two storeys in height but with some three storey units. There are no basements recorded. Living rooms vary between one and two in number. The majority are one or two-bedroom properties but there are a handful of three-bedroom dwellings. There are around 31 units adapted for accessible use in some way, however, the details other than shower grab rails and the like are not provided. Most walls are recorded as of solid construction and the properties are detailed as in a conservation area.

Internal Survey

From the internal survey information (taken from tenanted properties) we can see that most dwellings have one, two or three steps to them, however, some properties have four plus steps at the entrance. Most properties have at least one or two steps internally, with some having no steps and other dwellings on more than one floor have four plus steps within their staircases. The majority of front doors are found to be timber and range in age from original 1900 doors to 2012 installations. We have noted that most kitchens have a negative expected remaining life meaning they are in urgent need of replacement. Some dwellings kitchens have been replaced recently (some noted as 2010) and therefore have good remaining life expectancy. Bathrooms are found to be similar with many beyond life expectancy yet with several having been replaced in recent years and having a good remaining estimated lifetime.

The internal survey also tells us that all units are mains gas heated with wet radiator type heating distribution types. The spreadsheets note that some of these heating installations have been completed in 2015 (indicating the spreadsheets are updated in some fields once works are done after the stock condition surveys). The majority of properties have smoke detectors noted most of which are battery operated and ranging in age from 2002 to 2012. **Several properties are noted and not having smoke alarms. The survey records show there are only around 8 properties with Carbon Monoxide (CO) detectors, while the surveys are dated 2014 it should be noted that it became law that Landlords should fit working smoke and carbon monoxide detectors in their properties in October 2015.** A few heat detectors are fitted to properties. Wiring installations and CCU ages vary among the properties with many dating from the 1970s and therefore beyond their expected lifetime. Several have been rewired and CCUs replaced since 2000 with a few being completed in the last ten years.

The properties with roof spaces have loft insulation but this is sometimes less than 50mm, the majority is 50mm to 199mm range and occasionally over 200mm was noted. Water storage tanks where present range in age from 1970 to 2008. Any tanks prior to 1995 were noted as having a life expectancy of 4 year or less in the 2014 stock condition survey. Pipework is noted as partially or not insulated were present. External noise insulation is noted as inadequate to all properties and cavity insulation is not possible due to the solid wall construction. Some units are noted as having grab rails and level access showers.

External Survey

The external survey confirms that the pitched (main) roof coverings as a mix of natural slate from pre-1980s with around half of units having artificial slate coverings being completed in 1980s and 1990s. Flat roof coverings (small areas) are a mix of felt, profiled metal, lead, asphalt and grp coverings. Many have been replaced in the 1990s but some finishes pre-date 1990s and are therefore at the end of their estimated lifetime. Chimneys are noted to the properties with a few noted as beyond their expected lifetime. A few facia boards are noted as originals, but the majority are replacements dating from the 1980s and 1990s. Gutters and downpipes are a mix of uPVC and metal (cast iron) being either original or from the 1980s and 1990s. Some isolated properties are detailed as requiring structural repairs and the majority need at least minor pointing repairs as detailed in the stock condition surveys. Windows are noted as being timber sash windows single glazed and nearly all are beyond their expected lifetimes. Two properties have had double glazed timber sash units fitted in 2012. The external doors are all timber and date from the 1980s and 1990s with two units being replaced in 2012.

Fencing is detailed as at the end of its life or very close to end of life in the majority of properties. Some brick boundary walls are detailed as in poor condition. Gates are at or towards the end of their lives as are the quarry tile and concrete paved pathways. Decorated elements are listed for the properties and cover a mix of Soffit/Fascia/Bargeboard, Windows, Front Door, Rear/Side Door, Sections of wall and fences depending on how much original timber remains to each property and the extent of previously decorated wall areas.

As above, the information is recorded as having been gathered in the year 2014. While the information in the stock condition surveys is useful and gives the project team a very good high level snapshot into the situation in 2014, the four year period since plus the level of information gathered in the surveys means that project specific condition surveys will be required for this project due to its detail and complexity, especially with regards the leasehold properties where leaseholder contributions will be claimed by the London Borough of Haringey via the section 20 process.

Please see **Appendix** for an example pages extracted from the 2014 Stock Condition Surveys.

5.2 Structural Information

No existing structural information has been provided nor reviewed in relation to the proposed works

5.3 Building Services Information

In reviewing the 2017 Asbestos Surveys of the pods, it would appear that the original gas fired central heating installation included a boiler located within the kitchen of the property with a wall mounted flue (or maybe some were vertical). The gas fired boiler supplied heat to a hot water cylinder within the pod. Above the hot water cylinder was a small cold-water storage tank. There appears still to be some examples of these.

Over the years many refurbishments have taken place, centred around the removal of the hot and cold-water storage tanks and replacement of the boiler with a combi boiler. It is not clear whether the gas supplies were upgraded to allow for combi boilers or whether the showers in the bathrooms were refurbished as electric units. Some combi boilers are located within the kitchens of the property, some are located within the pod itself.

From the survey schedule issued to us, boilers have been replaced dating anywhere from 1990 to 2016. The survey is of 242 properties and excludes as ‘N/A’ 60 or so (these may have been inaccessible for survey). Of the remaining 180 properties, the age of the boilers falls into the following categories:

37 boilers are up to 5 years old.
26 boilers are between 6 and 10 years old
107 boilers are more than 10 years old

More than 70% of the surveyed existing boilers are more than 6 years old and should be considered for replacement.

No survey results or test information for the existing electrical or public health installation have been made available.

5.4 Asbestos Reports

Asbestos inspection reports by replace with ‘Redacted – contractor details’ looking at the bathroom pods only have been provided by LB Haringey for **REDACTED** dated 2017. From these reports we note that asbestos has been noted to the walls of the existing bathroom pod extensions and is being monitored with regards condition.

An example of one of the Mainstream inspection reports is included in **Appendix**

A refurbishment and demolition survey for 183 Gladstone Road has been provided for the entire property and dates from 2011. This survey identifies the asbestos insulation boards in the bathroom pod extension and also asbestos within the bitumen of the floor tiles in the kitchen area.

A copy of the Clearwater refurbishment and demolition asbestos survey report for 183 Gladstone Road is included in the **Appendix**

6. SCOPE OF PROPOSED WORKS & CONSIDERATIONS

6.1 Architectural Work Elements

Introduction

The architectural elements within the proposed works include the design and specification of the repairs and redecorations within the decent homes works for tenanted units and the external repairs and redecorations for the leaseholder units. The also include the lead design for the new kitchens and bathrooms forming large parts of the decent homes proposals. New windows and doors also fall within the architectural package for the project. Finally, the lead design of the new rear extensions falls within the architectural discipline.

Due to the details of this project Ridge are using their Building Surveying team to complete all architectural design and contract administration elements for the project.

Condition Surveys

Ridge and Partners plan to carry out surveys of all leaseholder properties and if not all a high proportion of the tenanted units as the project proceeds into the design stages. This is required to gather the existing information on the types of repair applicable to each property as well as the quantities of repairs required. From this information the Ridge building surveying teams will write detailed specifications of works for the internal repair and redecoration works and external repairs and redecorations works to be included within the project. Dwelling specific surveys will also flag any special considerations required in connection with the replacement bathroom pod rear extensions.

Due to the high number of units involved Ridge will use teams of Building Surveyors to deliver this task all being briefed and trained to obtain the relevant property information required.

From the limited inspections carried out so far at feasibility stage, Ridge and Partners have identified that the condition survey data appears to be largely accurate and simply needs updating, quantifying and any adding to with regards the finer detail as well as recording information on any elements not covered by the stock condition surveys.

Sequencing of Works

As touched upon within Section 4 of the report the sequencing of the works has been carefully reviewed and considered by the Ridge design team as RIBA Stage 1 (feasibility) has developed to ensure the project is planned and executed well from the start.

Ridge have concluded that due to the clients' specific project requirements it is necessary to carry out the decent homes works, foundation works, and all other internal and external repairs and redecorations works forming part of the project first. This will leave the services and main buildings in good condition and all ready to go regarding the modular unit switchovers. This preparation will enable a quick (same day) switchover to be completed as smoothly and risk free as possible by the bathroom extension modular contractors. The bathroom extension switchover can then be completed as one of the last elements of work on the project before any associated making good works.

Decent Homes Works

For all the tenanted properties Ridge will review the stock condition survey information regarding the ages and condition of all the external and internal elements of the buildings and will review them in further detail with site surveys of properties as above.

The elements to be reviewed include the roof coverings (pitched and flat coverings), front entrance doors, windows, chimneys, walls, hard landscaping elements, plasterwork, timberwork, insulation both acoustic and thermal, kitchens and the decorations for each property.

It should be noted that some properties will require new roof coverings based on the stock condition survey information, however, others will simply require isolated repairs to defective areas of roof slates and other pitched and flat coverings, to more recently replaced roofs for example. This type of large variation in the scope of works to any specific element is very probable based on the stock condition survey information and as a result the cost of these repairs is a significant risk to the project and could vary significantly until all properties are surveyed and the final specifications costed.

From the stock condition survey information and the additional site surveys taking place quantities of repairs required will also be more accurately recorded and a detailed quantified list of works required to each property will then be created.

From this list master designs and specifications covering the repair and replacement works necessary to address these defects to specific elements will be developed to return the defects and aged elements within each of properties to a reasonable / good state of repair.

A schedule of works will be produced for each property setting out the repair works needed at the time of the visual survey. This will include provisional quantities for repair works where necessary (for elements such as pointing and roof slate replacements) based of the visual survey information. Following access being provided the works will be scheduled out by Ridge building surveyors and accurate records will be produced by the contractors (as a requirement of the specifications) for Ridge review and comment.

Unless already renewed in recent years and a lifetime of over approximately 3 years remains the kitchens will be closely surveyed, and a proposed layout produced for a new kitchen. Ridge will review and incorporate the Homes for Haringey standard kitchens specification into the main specification of works. The new proposed kitchens will therefore be from the **REDACTED** or **REDACTED** kitchen suppliers with **REDACTED** and **REDACTED** flooring. The kitchens will be designed to include modern fittings and to a layout that suits the existing buildings. To do this (and of significant use for the bathroom extensions as covered below) measured surveys of all property types are required so that the designs can be developed to fit the existing properties. The specifications will be developed to incorporate the general performance specification requirements of Homes for Haringey. Options of finish will be provided for tenants all being of a similar standard. Consideration should be given as to whether we need to cover a range of standards as well as designs so should the tenants choose to contribute this could be incorporated. Such options will be discussed as the project develops.

Windows and front doors will also be repaired where applicable and / or replaced with new to meet decent homes standards. Again, where replacement is to be carried out Homes for Haringey performance specifications would be reviewed and covered suitably within the final Ridge specifications of works. If repairable the options will be discussed with Haringey and repair products such as window care or timber care would be specified if repair is the agreed option selected.

Please note that decent homes guidance calls for the buildings to be in reasonable condition. As with any project the definition of reasonable can vary depending on the parties in question. It should be carefully considered by Homes for Haringey as to whether elements should be repaired to a slightly higher and therefore good standard in places to take advantage of the scaffolding and economies of scale on the project etc. This would be advisable with certain elements to maintain consistent standards and appearances across the estate. If incorporated a significant improvement in the aesthetics of the area will result at project completion. This investment will vastly increase the value of this asset.

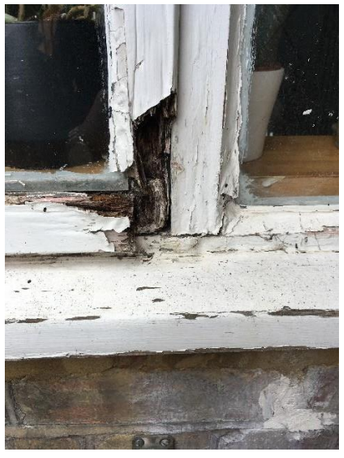
Bathroom **REDACTED**

Boiler in Kitchen **REDACTED**

Kitchen door to Pod **REDACTED**

Front Elevations

Roof Areas



Rot to Windows

External Repairs and Redecorations to Leasehold Properties

As above following detailed surveys of all leasehold units lists of required works to defective elements will be prepared before being developed by Ridge into schedules of works for each of the properties. Liaison with the Homes for Haringey leasehold team has started and will intensify as the project develops. This close working partnership will be required as we progress to be sure the specifications meet their requirements and that the section 20 procedures required run smoothly to avoid problems on the project. This is covered further in section 8.4.

At this stage Ridge have not had details of the elements covered within the leases or how many lease types there are and how much they vary. From experience however, at this stage we would assume that in addition to the structure the Landlord is responsible for the maintenance of the external elements of the building to a state of good repair. Typical elements include roof coverings and structure, flashings, copings, chimneys including pots and flaunching's, walls (including brickwork, stonework and concrete), pointing, windows including mortar fillets and cills, external doors, rainwater goods, waste pipework, external decorations, fencing, paving, boundary walls, external staircases, steps and external drainage and services outside the property but inside the boundary where there are to shared common parts. Some of these maybe leaseholder responsibilities and therefore clarifications are required from Homes for Haringey before we proceed to the RIBA design stages 2-4.

Rear Modular Bathroom Extensions

As per the brief the proposals will include the replacement of all bathroom rear extensions and this will mean new rear structures including new bathrooms for all properties. Therefore, this process will automatically result in all bathrooms being brought up to a good standard in every respect thus far exceeding the decent homes standards. From site visits to date it has been noted that while some bathroom fittings are to decent homes standards at present (due to more recent replacement) the structure around them is in poor condition and in need of replacement. This supports the clients' decision to replace these rear extensions and survey information of this nature will be important in supporting the justification for replacement especially with regards the leaseholder properties and the planned associated claims for leaseholder contributions.

Ridge and Partners have carried out a review of the pilot flat projects carried out by Homes for Haringey and have also been liaising with modular contractors that have successfully delivered such projects in the past for other London Boroughs as research for this project as well as modular contractors that are keen to deliver the project. This has been an extremely useful process to date.

Through discussing this type of project with the contractors that have successfully completed such a project, the Noel Park project team have learnt from them as to what was successful and what the issues were. From the meetings and correspondence Ridge are confident the Ridge and Haringey project team can develop a solution that works for the London Borough of Haringey Noel Park Project and all involved. From discussions with modular contractors' keen to carry out the project the key attributes for the modular contractor and the logistics are also coming to light allowing good project planning to commence. This element of the works is explored further in sub sections 6.5 and 6.6 below.

Existing Pod First Floor

Existing Pod Ground Floor **REDACTED**

Existing Staircase **REDACTED**

Due to the success of the pilot projects and the restrictions on site we note that the design of the rear extensions and bathrooms is restricted. Furthermore, the one-day switchover results in like for like design being the best option. Accordingly, the rear extensions will be designed to include modern fittings and to a similar layout to the existing. The specifications will be developed to incorporate the Homes for Haringey standard bathroom specification requirements and the general performance specification requirements of Homes for Haringey. Options of finish will be provided for tenants all being of a similar standard. For leaseholders, an assessment as to the standards of their fittings will need to be made and the options will need to cover a range of standards as well as designs so like for like replacements can be agreed with the leaseholders. Options such as upgrades should the leaseholder choose to contribute could be considered and will be discussed as the project develops.

Please see **Appendix** for existing and proposed bathroom extension drawings.

6.2 Structural Works Elements

Foundations

Early enquiries with Modular contractors have not allowed for any enabling works associated with the installation. The units will require the development of a design for a suitable base and foundations, details of which will be dependent upon local ground conditions and the loadings from the proposed modular units. It is anticipated that the new foundation systems will consist of a combination of modern steel screw pile foundations, and where possible, re-use of the existing concrete plinth or pad foundations beneath the existing modules. The steel screw pile foundation systems have a number of benefits; including

- speed of installation
- production of very minimal spoil,
- ability to install the foundations from externally with the existing modules remaining in places,

Depending on the condition of the existing concrete foundations where present beneath the existing modules, the re-use of any existing foundations details has obvious benefits in terms of project costs and programme.

Underground drainage

From a preliminary site investigation, there would appear to be mains foul and surface water to the rear of the property, but we could not establish the exact arrangements, positions, inverts and conditions. We did not lift manholes as part of our inspection – and as such have made assumptions that the connections of the existing drainage installation are at such a depth as to accommodate new connections from the location of the proposed units. We have not allowed for forming new connections to both foul and surface water mains drainage within our cost estimate as at present the existing drain positions and connections are to be used and are assumed to be in reasonable condition and of suitable design to accommodate the new pods. A general arrangement drainage drawing has been issued but until a detailed drainage survey is completed this is considered a significant project risk (as per the risk register).

Connection to existing structure

The existing and new modules are not assumed to incorporate any form of structural connection to the main building structure. It is assumed that no support is taken from, or provide to, the new modules from the existing building structures, and therefore it is assumed that the new modules will be fully self-supporting and stable in their own right, and therefore the junction between the old and new construction is to be detailed to ensure integrity of the external envelope of the building only, with no structural fixings required for stability or the transfer of loadings.

6.3 Building Services Works Elements

Introduction

The building services elements within the proposed works include the design and specification of the refurbishment within the decent homes works for tenanted units a separate specification of MEP required works will be required for the leaseholder units.

Condition Surveys

Ridge and Partners plan to carry out surveys of all leaseholder properties and if not all a high proportion of the tenanted units as the project proceeds into the design stages. This is required to gather the existing information on the condition and age of the existing building services equipment, plumbing and wiring and its likely economic replacement. From this information the Ridge and Partners will write detailed specifications of works for the works to be included within the project. Dwelling specific surveys will also flag any special considerations required in connection with the replacement bathroom pod rear extensions.

Due to the high number of units involved Ridge and Partners will use teams of Surveyors to deliver this task all being briefed and trained to obtain the relevant property information required.

From the limited inspections carried out so far at feasibility stage, Ridge and Partners have identified that the condition survey data appears to be largely accurate and simply needs updating, quantifying and any adding to with regards the finer detail as well as recording information on any elements not covered by the stock condition surveys.

Sequencing of Works

As has already been discussed, it is necessary to carry out the decent homes works first. This will leave the services and main buildings in good condition and all ready to go regarding the modular unit switchovers. If the property is fed from a boiler located in the pod, then careful flushing will be required to ensure that the existing boiler does not contaminate the new pipework and radiators installed under the decent homes work. If the property is fed from a boiler

within the kitchen, the intent is to provide connections such that the new boilers in the pods can supply the rest of the property.

Decent Homes Works

For all the tenanted properties Ridge will review the stock condition survey information regarding the ages and condition of all the Building Services elements of the properties and will review them in further detail with site surveys of properties as above.

The elements to be reviewed include the heating, hot and cold-water systems including the gas supply, the main electrical supply, metering and isolation, general wiring and fixtures (sockets etc), lighting and light fittings, fire alarm and smoke/heat detection, TV and telecommunications systems, ventilation (mechanical and natural) above ground plumbing waste and soil pipework for each property.

From the stock condition survey information and the additional site surveys taking place quantities of repairs required will also be more accurately recorded and a detailed quantified list of works required to each property will then be created.

From this list master designs and specifications covering the repair and replacement works necessary to address these defects to specific elements will be developed to return the defects and aged elements within each of properties to a reasonable / good state of repair.

There will be a building services element added to the schedule of works produced for each property.

Rear Modular Bathroom Extensions

The bathroom pod will connect up its new gas fired combi boiler to the connections left by the decent homes element of the project. The boiler shall have a balanced flue discharging through the facade of the pod.

An electrical supply will need to be provided from the existing property. We have not checked the capacity within the existing properties to determine whether this would be possible however, as long as we restrict the new works to replacement of existing services the loads should be lower. New LED lighting and high efficiency fans will aid this. The bigger issue will be the age and condition of the existing wiring (including the consumer unit) in the property. Each property will require an up to date electrical test certificate to determine this.

The pod ‘corridor’ section should have a wired smoke detector and sounder.

A water supply will need to be provided, and we have made provisional allowance for adapting the supplies from the existing properties. Some of the units have the hot water cylinder within the pod, so this will need to be piped back to the existing system in the property. All pipework systems will need to be pressure tested and chemically cleaned, prior to connection to the new pods.

The condition, pipework routes and flue location will all need to be determined to comply with current regulations. The existing pipework within the property will need to be chemically cleaned and tested prior to connection to the pod.

The new pods shall come complete with a small ceiling mounted mechanical ventilation system (MVHR) recovering heat from the extract from the bathroom and using it to heat incoming fresh air. The system shall be ducted to grille on the pod façade.

We would suggest that the bathroom be provided with an electric towel rail (this must have a thermostatic control along with a 7-day programmer).

The new waste pipework will run to the existing drainage system.

6.4 Landscape Architecture Elements

We have made an allowance within our cost estimate for some external hardscaping and landscaping works, as the current rear gardens / yards will need to be reinstated as part of the standard design works, as well as any other making good following trenching for drainage repairs and the like. These proposals will need to be developed throughout the design stages of the project so suitable landscaping works are specified within the technical design and allowed for within the tender package.

rear landscaping **REDACTED** rear decking **REDACTED** rear yard area **REDACTED**

To the front of the properties the areas appear communal where there is more than one dwelling. Pathway, step, boundary wall, fencing and gate repairs appear to be necessary at varying quantities to return the estate to a good state of repair.

Front Boundary

Front Boundary Wall

Front Gardens

6.5 Modular Unit Supplier Elements and Selection

With the rear extensions needing to be removed and replaced in one day, modular off-site construction appears to be the only realistic option to accommodate this essential project need. As above Ridge have therefore been exploring the possibilities associated with the project with modular contractors so this important element of the project can be incorporated into the overall project proposals. From our research so far, it has become very evident that there are significant benefits of working with a modular contractor at an early stage to develop an outline design and strategy for the project. Due to the high volume of units and associated costs of this project the solutions must be found that work well first time and the modular unit design must be very well co-ordinated with the other elements of the projects such as the decent homes works.

Accordingly, the relatively small costs of employment of a modular contractor to provide design services working with the Ridge team through the early design stages should be considered. Such fees at this stage could easily be offset / recovered in potential variations savings at a later stage. Should the outline design progress without a modular contractor's involvement there is a risk the outline design could develop along the wrong lines is some way(s) that become restrictive or costly to overcome later on post contract award. This would need to be done impartially and still allowing other modular contractors to tender for the works as either principal contractors or sub-contractors to one as expanded upon in section 10.4. Alternatively, control of the modular contractor to remove such risks as well as ensuring suitable quality could be achieved by referencing a list of modular contractors to be used.

The modular contractors once appointed either as a specialist designer at an early stage or more commonly post tender as a contractor's designer under a D&B will visit site to survey the existing buildings and using the measured surveys and liaising with Ridge (, possibly the contractor) and the client will develop a design solution that works for each type of house. A standard external finish will be developed and included for depending on our communications with the conservation officers. This will be as existing if possible to minimise costs or if preferred by the client or insisted upon by the conservation officers a brick slip finish to match the existing rear elevation brickwork could be utilised. As above varying options for internal finishes to bathrooms can be included for.

The main contractor is likely to be responsible for removal of the existing bathroom pods (either with asbestos in-situ if deemed safe by all necessary specialists) or following asbestos removal works and temporary making good works.
On the switchover day safe disconnection of the existing pod from the main building would first be required.

Foundations and slab preparation works will be completed at the time of the decent homes works as per section 6.2. Once the existing pod is removed (unless found to be unsuitable an unable to be adapted to suit the proposed), the existing slabs would be prepared and reused as a base for the new rear extensions which would be craned into position.

Connection of the pod to the new services, testing and commissioning can then be carried out and finishing and waterproofing works both internally and externally can be constructed.

Due to the high volume of units required but relatively low value of the project there is a few modular contractors that are well placed to be able to deliver the project as well as being interested in it. Smaller and larger modular contractors outside the band of suitable contractors are more likely to fail in the delivery of the project due to delays in manufacture or placing the project as a low priority.

We understand that suppliers have previously been approached for the supply and installation of the units required, these being: -

To date Ridge have approached the following contractors in relation to the

project. Modular Units

- **REDACTED**
- **REDACTED**
- **REDACTED**
- **REDACTED**
- **REDACTED**
- REDACTED

As per the brief and due to the site restrictions, the preferred layout would be for 2no. bathroom units, stacked on top of one another similar to the existing layout but possibly with a slightly larger footprint. the feasibility of the logistics of which will be further discussed in the next section.

The providers with which we have worked with to date have provided a broad-brush estimated cost based on a desk top basis only.

Clearly there are numerous providers who will be willing to offer a solution for the accommodation – and we would strongly suggest that prior to placing any order, a proper tendering procedure be undertaken in order that comparable quotes can be obtained for the supply and installation of the units. Quality and modular contractor suitability should be a key component to this procedure and is in some way equal if not more important than price for the smooth and successful delivery of the project. Accordingly, this tendering procedure should be based on a set of Employers Requirements that would clearly lay out the performance requirements of the units to be provided.

We understand that that as per the existing units requiring replacement the design requirement is to ‘double stack’ the units. We have made an allowance for external escape stairs similar to the existing within our estimate of project costs.

As above the external appearance of the building will also need to be considered. At present the proposals handed to us will only allow for a brick slip exterior as the elevational treatment.

6.6 Modular Unit Logistics

The logistics of installing the units will require careful consideration with each provider having their own individual requirements when it comes to delivery and installation.

The craning in of the units will require careful consideration. Access to the site is limited due to terraced nature of the existing buildings, and the positioning of telephone lines and the like. The only means of installing the units other than those near perpendicular roads at the ends of terraces would require craning access from the roads to the front of properties over the property / neighbouring properties into the positions in the rear gardens.

1972’s and 2008 crane installaton

To areas of the site there are perpendicular roads offering a much more viable location for the cranage of the units.

There are mature trees in the area that may impede cranage, and this will be looked at in further detail by the contractors during tender stage, so all costs associated with the delivery of units can be suitably allowed for.

We understand that access via the rear of the properties is not possible due to the numerous back to back rear gardens and as such this has been discounted.

6.7 Construction Logistics

The construction logistics will need to include two elements of work. The Decent Homes programme and the coordination and management of the installation of the Modular Units.

Homes for Haringey are currently completing a Decent Homes programme where Wates have been appointed the framework contractor. Wates have had an established site office on Gladstone Avenue. We would look to replicate this for the duration of these works. If not available, then a site office will need to be provided by the contractor and a suitable location identified.

Decent Homes

The decent homes works will be undertaken with the tenant and leaseholders in occupation of their dwellings. This is the same strategy that has been adopted by the current works being undertaken by Wates. With good tenant liaison by Wates and Homes for Haringey we understand this has been successful. A day centre has been provided for the tenants and leaseholders so that they are not in their dwellings during the day, as this poses a health and safety issue.

The works identified under the Decent Homes will require external scaffold to the dwellings for roof, façade and window repairs and replacement, dependent upon condition. Internally the contractor will enter the dwellings each day to undertake their works, providing suitable protection and leaving the building in a safe habitable condition each evening for the tenant to return. There are no Decent Homes internal works on the leasehold buildings.

Modular unit associated works

In preparing for the new Modular Units to be installed there is a requirement for enabling works to be undertaken prior to the installation, so that it can be completed in one day.

Within the tenanted properties incorporated within the Decant Homes works the services connections to the Modular Units will need to be installed so that they are in a common location to provide ease of installation. Within the leasehold properties each individual property will need to be surveyed and a strategy developed to provide the most efficient and economical method of installing the Modular Units and finishing the unit internally.

Prior to the installation of the Modular Unit the existing Unit need to be removed. These units also include Asbestos insulation board. A strategy need to be developed with the Main Contractor, in conjunction with the Health and Safety team in how the Asbestos Panels are removed. The Homes for Haringey H&S team have recently been removing the panels in the Units prior to undertaking emergency repair works. The Board has then been sealed up and disposed of safely. An alternative, **REDACTED** at Enfield worked with replacing existing pods with Asbestos where they wrapped the pods, craned them away, over the existing homes and then sent them away from site to be safely dismantled and the asbestos removed.

The existing foundations will need to be assessed and where necessary new foundations installed. The pilot Pod installed on Noel Park and the works undertaken by **REDACTED** at Enfield have utilised a helical pile solution where the hand-held machinery can drill helical piles into the ground with the existing pod in situ and then used to support the new Modular Unit.

7. RECOMMENDED FURTHER INVESTIGATIONS AND REPORTS

The following investigations and reports are recommended as per our comments below:

Full Measured Survey of Existing Building

A full Measured Survey of the existing building needs to be undertaken to allow the development of accurate CAD plans and elevations or accurate electronic CAD plans and elevations need to be obtained. This is to assist in the development of the Planning Drawings and to facilitate the design team with existing information they are confident in, so they can progress the design through concept, developed and technical design stages (RIBA stages 2-4) and a suitably detailed tender package can then be produced.

Project Specific Condition Surveys

Our team will carry out project specific surveys of the properties as access is made available and as the project develops. This will add to the information provided in the stock condition surveys allowing the extension designs to reflect on site conditions and details and for suitable specifications to be developed for the decent homes and external repairs and redecorations works.

Topographical Survey

A Topographical Survey needs to be carried out so the internal floor levels (at both ground and first floors), roof eaves levels and external ground levels as well as manhole positions etc can be identified and detailed on site drawings.

Asbestos Survey

In advance of any construction works taking place a Refurbishment and Demolition surveys will be required to be undertaken to all areas of all properties covered within the project. If already completed for properties surveys, these reports will need to be provided by London Borough of Haringey. If not in place all remaining properties (and elements affected or worked on during the project) will need to be surveyed and a new refurbishment and demolition asbestos survey reports provided. From these surveys and reports the full extent of the asbestos can be determined and a detailed assessment can then be made to establish whether to remove Asbestos ahead of the bathroom pod removal or whether the pods can be safely and suitably wrapped and removed under controlled conditions. Once the details are known the two options for the project asbestos works can be set out, planned and appropriate cost and programme allowances can be made.

Ground Investigation

A previous Ground Investigation Report has been provided. Further investigations including borehole tests should be undertaken to the area to assess the ground conditions for loading capacity and ensure there is no contamination.

If ground conditions are unfavourable, more complex costly foundations could be required. If encountered contaminated land could result in remediation works. Ground investigations will assist in reducing this risk and allow informed design.

Trial pits are also needed to identify the details of the existing concrete slabs below the existing bathroom pods.

Concrete testing

The existing concrete forming the foundations to the existing pods will need to have samples collected and be tested for composition and strength etc to allow our structural engineers to incorporate them suitably in the design solution if possible.

Utilities Search and CAT Scan

A Utilities Search and CAT Scan should be undertaken to establish the location of any buried services and Utilities. Should CAT scans not identify the services known to be around the proposed building, trial pits are recommended to locate the services, so the design can allow for them accordingly.

Habitat Survey

It is possible that a Habitat Survey will be required as part of the Planning Application. A Habitat Survey will establish whether there are any Protected Sspecies to the site.

Drainage Survey

A Drainage Survey should be undertaken at design stage to establish the current condition of the drainage and suitability for connection.

Opening Works

At this stage the design team cannot rule out the need for opening works to be carried out to some elements within the existing properties. At present they will be avoided if possible so that no residents are disrupted unless unavoidable. We will notify Haringey as soon as any opening up works are being considered by the team so that suitable arrangements can be made.

Arbocultural Survey

A tree survey is likely to be required as the project develops should planning require it as a condition of their approval or if any trees are noted in the proximity of any of the rear garden areas and structural design need to consider the type of tree species applicable etc.

UXO

An unexploded ordinance survey would be recommended for the project as Haringey was bombed during the second world war.

8. STATUTORY CONSENTS

8.1 Planning Consent

We have not undertaken any planning consultation for the purposes of this feasibility report. However, Ridge and Partners have approached the Planning Department for Pre-Application advice and Consultation, and have been informed that a meeting can only be accommodated once drawings of the proposals are developed. Accordingly, meetings with the planning department will be arranged once accurate drawings of the existing and proposed plans and elevations are created. This will be so during RIBA stage 2 concept design stage.

We understand that accommodation is to be considered permanent, with an anticipated time period of 60 plus years. As the area is a conservation area the design proposals will have to be sympathetically considered during design development RIBA stages 2 to 4 so they match or do not negatively impact the surrounding environment and existing structures.

The previous accommodation provided by the pilot pods will be very similar to the final design solution that can be developed by the design team due to the restrictions created due to small rear gardens to all properties and due to the client requirements to remove and replace the existing facilities in one day whilst residents remain in occupation.

The Planning Authority consider that the new bathroom pods to require full planning permission / conservation area consent due to the nature of the works and the area in which the properties are located. This will be fully considered by Ridge when making the planning application.

Ahead of closer liaison with the planning department and conservation officers, Ridge consider the following planning elements to be the key issues.

Impact on Neighbouring Amenities

There are existing residences or private amenity areas which would be affected by the siting of the modular units in this location. The existing modular pods do not appear to be thought of positively by the conservation officers and local residents due to their finishing materials and subsequent appearance in relation to the existing main house building materials.

Working Hours

As the area is a residential area, as standard with most projects requiring planning approval, restrictions to the working hours and days in which the contractors will be allowed to work on the project will be imposed and are likely to be 8am to 6pm or similar.

Highways and Parking

There are no changes to the occupancies of the properties proposed and therefore there should be no highways and parking requirements imposed on the project, however, road closures will be required, and these are covered further in section 6 above.

Conclusion

The site is located within an established primarily residential built-up area where the principle of development is acceptable subject to the normal planning considerations such as impact on character of the area, design and layout, amenity of existing and future residents etc. Conservation area consent and compliance with the conservation area plan through close working with the conservation officers will be required.

The general findings of the pre-application conversations and feasibility review were positive - and a slightly larger solution would be likely to be acceptable. In addition, the fact that pilot projects have been completed successfully including a standard modular finish option could result in a president already having been set. This increases the possibility of such finished being used for the new pods instead of a brick slip type finish of matching brickwork being asked for to avoid an adverse impact on the character and appearance of the area and residential amenity. Objections from local residents and possibly leaseholders may result if brick slips are not selected as an external finish however. Accordingly, the external finishes to the new pods will need to be carefully considered and close liaison with the planners, local residents and leaseholders is recommended as the project develops is planned to ensure the final finishes do not negatively impact the area.

8.2 Building Regulations

The decent homes works and repair and redecoration works will be required to meet the Building Regulations but being of the repair and replacement category there will be minimal building regulations applicable to these elements of the project other than elements that can be self-certified in connection with mechanical and electrical works plus possibly new window installation works. However, regarding the provision of the modular units, it is important to determine that they would be fully compliant with current Building Regulation requirements as many sections of the building regulations are applicable to the new bathroom pod building extensions including part A, B, C, D, E, F, G, H, J, K, L, M & P. Ridge will work with the modular contractors to ensure building control compliance and the performance specifications will also set out that compliance is essential.

Whilst the suppliers engaged with on the project to date do confirm that the units will comply with building regulations, consideration needs to be given to the proximity of the building to the notional boundary line – and the amount of unprotected area permitted dependent upon how far away from the boundary the buildings are.

In summary, confirmation needs to be sought from the supplier that the units themselves are compliant with building regulations, and that the proposed positioning of the units in relation to the boundaries is also compliant.

Conclusion

The Ridge design team will work with the building control department to ensure compliance and will oversee the building control application made by the modular building contractor to ensure building control certification is obtained for the new bathroom extensions and the project.

8.3 CDM Regulations

Summary of position with respect to general CDM matters as follows.

Design safety matters.

We do not consider that the pod design itself will present any significant health and safety risks. The main project safety hazards being the asbestos removal and the lifting operations during the removal of existing pods and installing new.

Use of off -site manufacturing processes is now commonplace in construction and has the added benefit of eliminating or reducing a number of general construction hazards (cutting of materials, use of power tools, works at height, manual handling of materials etc) as well as reducing the number of trade operatives required on site and thus reducing the amount/size of welfare facilities that need to be provided. As such we would consider the use of off-site manufactured pods to be in full compliance with the CDM Regulations requirement to eliminate/minimise risk through design.

Provision of Pre-construction information

Whilst asbestos information has been provided and the presence of asbestos is confirmed, additional demolition surveys will be required to bring existing information up to the standards required by The Control of Asbestos Regulations 2012. Further surveys will also be required to establish services locations, potential ground contamination and possibly UXO desktop study depending on the type of foundations that will be used.

Going forward

It would be beneficial to establish the general weight of the pods as early as possible as this will then inform the size of crane that will be required and enable a general study to be undertaken to establish the siting and lifting locations of the crane across the whole area.

We would advise that suitable welfare arrangements that comply with the requirements of the CDM regulations 2015, in the form of site cabin/s and toilet/washing facilities will need to be in place during the works. Early identification of potentially suitable areas is recommended.

It should be noted that under the requirements of the Lifting Operations & Lifting Equipment Regulations (LOLER), lifting operations over persons or occupied properties should be avoided wherever possible. There will be a requirement for a comprehensive risk assessment and lifting plan to be produced in advance of any lifting operations commencing and additional safety precautions will need to be in place whilst undertaking lifting operations.

8.4 Leaseholder Contributions

As per the brief Homes for Haringey will be completing the Section 20 process for the project to obtain leaseholder contributions for the project to help cover the costs of the works to leaseholder properties in line with their leases. Ridge have met with the Homes for Haringey Leasehold team and will continue to work with them throughout the project to assist the Leasehold team with the provision of information they require at the relevant stages.

From the project it has been identified that there are 70 leaseholder dwellings, 30% of the properties. Further complication is that some of the dwellings are located with tenant and freehold buildings.

The section 20 process is a three-stage consultation process. This has been incorporated within the programmes developed within this feasibility report.

Pre-Tender Stage

A notice must be served before we invite contractors to tender. Under the OJEU process this is before we issue a PIN notice. The notice will describe the works to be undertaken, explain why they are being undertaken and invite the leaseholder to suggest a contractor who may wish to undertake the works. This consultation period is a minimum of 30 days.
At this stage there is no reference to the cost of the works.

Tender Stage – Notice of Proposal

Once tenders have been received and a recommendation concluded a second notice is served. This notice will describe the works, identify the contractor(s) provide estimated costs where possible and invite the leaseholder to make comments in writing. This consultation period is a minimum 30 days. This notice will be served after the project team have recommended a contractor but before the recommendation is presented to Haringey for formal approval.

Award of Contract stage – Award of contract Notice.

This notice only needs to be issued if we award the contract to a contractor who did not offer the lowest price of if we did not award the contract to a contractor nominated by a leaseholder.

If the procurement of the works does not follow the OJEU route an alternative is to use the London Construction Programme. This is an established framework that Haringey have the ability to utilise where contractors have pre-qualified by way of competitive selection. Under this process there is no requirement to follow the Section 20 notice process.

Whilst it is acknowledged that the Section 20 notices are a process to inform the leaseholder and the requirements have been incorporated into the programmes, there is no discussion regarding the leaseholder's willingness and ability to pay for these works. From initial discussions with the Leaseholder team we understand that the leases for the dwellings are different and will need to be reviewed, regarding landlord and leaseholder obligations.

Additionally, Leaseholders are certain to ask what will happen with their existing sanitary ware and bathroom finishes, as many appear to have upgraded the existing finishes. The outcome of this will directly impact on the procurement and installation of the Leasehold Modular Units.

9. COST ESTIMATE

9.1 Project Background

This “Order of Cost Estimate” is an estimate of the construction costs at present day rates for the proposed project. Also, the estimate projects these costs to the anticipated construction period. No specification has been issued and limited sketch drawings are available. This report has been prepared based on the information contained in the Feasibility Study report.

Ref.	Description	£
1.00	Bathroom POD replacement	£ 5,690,000.00
2.00	Decent Home Internal Works	£ 1,350,000.00
3.00	Decent Home External Works	£ 4,581,000.00
4.00	Others	£ 67,000.00
5.00	Main contractor's preliminaries	£ 1,518,000.00
6.00	Main contractor's overheads and profit	£ 991,000.00
7.00	Inflation	£ 355,000.00
8.00	Main Project Risk	£ 1,456,000.00
	Estimate of Construction Cost (Excl. VAT)	**£ 16,008,000.00**

The next stage would be to progress the sketch design drawings and prepare a brief outline specification detailing the specific proposals for the building fabric and fit out, together with the proposed site works and drainage solutions. From this information a full approximate quantity estimate can be produced to provide a more detailed and accurate assessment of the Project costs and provide a cost plan for use in monitoring and checking the design development process.

A value management/engineering session may be appropriate to ensure value for money is maintained.

9.2 Design Basis Information

The project estimate has been prepared in accordance with the "RICS New Rules of Measurement, Volume 1" 2nd edition, effective from 1 January 2013 (RICS:NRM-1 v2). At this stage there is limited information available and as such we have not completed the estimate questionnaire as set out in the 'RICS:NRM'.

The project estimate assumes a reasonable level of specification and a good quality of finishes. Mechanical and Electrical installation proposals are based on a comparison with similar recent Decent Homes projects, no specialist advise has been provided at this stage.

The project estimate has been prepared generally based on the Decent Homes Specifications, these rates have been derived from our in-house cost information and experience of Decent Homes projects. We have carried out market testing of bathroom pod installations and have received budget costs

9.3 Procurement and Programme

The estimate assumes that tenders will be sought on a competitive single stage basis and that the contract will be awarded on a standard form of building contract. It assumes a “Main Contractor” acting as Principal Contractor for the purposes of Health and Safety and management on site. They would provide site clearance, groundworks and welfare facilities.

For the purposes of this estimate we have assumed a Modular Contractor would be working under a Main Contractor on a Design & Build contract. The choice of procurement route may influence the cost for the project, we would recommend an early discussion to resolve this issue

We have assumed the Main/Enabling works contract would commence on site, 1st quarter 2019. We have assumed a period of 52 weeks for the works, excluding public holidays.

9.4 Financial Basis

The Base Date for the estimate is the publish date stated on the front cover.

The level of pricing assumes a contractor will have clear access to the working areas and that the work will be executed during normal working hours.

The pricing indices are based on current Building Cost Information Services (BCIS) information, updated May 2018. Their predictions are as follows:

All-in Tender Prices Adjustment; +1.5% to the anticipated start on site date
+2.5% to mid-point of construction

Regional Trends Adjustment; No adjustment made

The estimate is based at 'Present Day' prices and we have made an adjustment to the estimated total to allow for 'Market Trends' up to the mid-point of the construction period, as above. We have not made any adjustment for location as we assume this is within our Price and Design Risk percentage.

The estimate adopts the principles of the 'RICS:NRM' and seeks to start a process to proper manage risk on the project level. In addition, the report seeks to identify and quantify all potential risks to the development for the Employer include the widely issues of business continuity, operational risk and the like.

Due to the early stages of the project Risk Allowances have been included as global percentages. As the design progresses a detailed Risk Register needs to be developed to fully highlight and control the project risks.

9.5 Estimate of Project Costs

The following detailed analysis for the current proposed scheme, sets the "Cost Limit" overall project estimate as defined by the "RICS New Rules of Measurement, Volume 1" 2nd edition, (RICS:NRM-1 v2).

Ref.	Description		£
1.00	**Bathroom POD replacement**		£ 5,690,000.00
2.00	**Decent Home Internal Works**		
	2.01 Kitchens (tenanted properties <5 years life)		£ 470,000.00
	2.02 Bathrooms (No pod, tenanted properties <5 years life)		£ 16,000.00
	2.03 Full rewire		£ 344,000.00
	2.04 Partial rewire (only where kitchen renewed)		£ 69,000.00
	2.05 Smoke and CO detectors only		£ 5,000.00
	2.06 Bathroom rewire (No pod, tenanted properties)		£ 3,000.00
	2.07 Replacement boiler only (tenanted only - 81/161)		£ 194,000.00
	2.08 Full CH system (tenanted only - 22/161)		£ 88,000.00
	2.09 Allowance for additional boiler renewals where positioned in Pods		£ 62,000.00
	2.10 Allowance for additional boiler renewals where positioned in Pods		£ 86,000.00
	2.11 Electrical upgrades and PIR repairs (prov)		£ 13,000.00
3.00	**Decent Home External Works**		
	3.01 New Windows		£ 2,468,000.00
	3.02 New Front doors		£ 240,000.00
	3.03 Scaffolding		£ 715,000.00
	3.04 Pitch Roof Repairs		£ 358,000.00
	Allowances for 25nr properties required Roof Replacement		£ 88,000.00
	3.05 Loft Insulation		£ 86,000.00
	3.06 Relocate dishes / adapting existing TV aerials		£ 48,000.00
	3.07 External Decorations		£ 215,000.00
	3.08 Concrete / Brickworks Repair		£ 215,000.00
	3.09 Landlords Lighting & Power		£ 72,000.00
	3.10 Internal Communal Decoration		£ 76,000.00
4.00	**Others**		
	4.01 Periodic Test		£ 21,000.00
	4.02 EPC		£ 11,000.00
	4.03 Asbestos Survey - Internal Only		£ 21,000.00
	4.04 Asbestos Survey - External Only		£ 14,000.00
	4.05 Asbestos Removal - EXCLUDED		Excluded
	Sub Total: Estimate of Construction Cost (Excl. VAT)	**£**	**11,688,000.00**
5.00	**Main contractor's preliminaries**		
	Pre-construction Services		£ 50,000.00
	Post-contract Preliminaries	12.5%	£ 1,468,000.00
6.00	**Main contractor's overheads and profit**	7.5%	£ 991,000.00
7.00	**Inflation**	2.5%	£ 355,000.00
	Sub Total: Estimate of Construction Cost (Excl. VAT)	**£**	**14,552,000.00**
8.00	**Main Project Risk**	10.0%	£ 1,456,000.00
	Total: Estimate of Construction Cost (Excl. VAT)	**£**	**16,008,000.00**

9.6 Exclusions and qualifications

The following are not included in this Project Estimate.

- Value Added Tax
  Value Added Tax (VAT) in relation to buildings is a complex area. Therefore, it is recommended that VAT be excluded from the estimate. It recommended that specialist advice is sought on VAT matters to ensure that the correct rates are applied to the various aspects of the building project
- Land purchase and legal fees
- Contributions to Section 106 and 278 works agreements
- Finance Charges
- Any costs caused by 'Third Party Rights'
- Phasing/decant of the works. Move management requirements
- Temporary accommodation requirements
- Specialist Security
- Statutory utility infrastructure charges or upgrading of the off-site services. No information available at this stage.
- Works associated with any archaeological studies. No information available at this stage.

The following qualifications apply to this Project Estimate.

- This report is based on the information available listed in this report. As this information is developed it may/will affect the allowances and assumptions made in this report.
- An allowance has been made for ground improvements, this will need to be reviewed once more detailed investigations and surveys are completed
- No allowance has been made for excavating below ground water level.
- Also, we have assumed the finished ground levels for the new bathroom pods will be as the existing prevailing levels. This means we have not allowed for the complete breaking out and disposal of all existing foundations.
- No allowance has been made for contaminated soil removal. No detailed information is available.
- No allowance has been made for any additional Incoming Services requirements.
- Drainage of the site is assumed to be to connections at the locations of the existing bathroom pods. It is assumed that the drainage connection has sufficient fall and capacity.
- No allowance has been made for the removal of any 'Fly Tipping' on the site or any other contaminated waste. We assume any items are removed prior to the start of the contract
- Within the Decent Homes works we have allowed for asbestos testing during the survey stage but have not allowed for any further removal depending upon survey results.

10. PROJECT PROGRAMME & PROCUREMENT

10.1 Outline Project Programme

Ridge and Partners have developed two programmes based on two procurement routes, OJEU and the London Construction Programme. The OJEU procurement allows for an open market tender after a Pre-Qualification Questionnaire. The London Construction Programme is an established framework with 8 pre-qualified main contractors. The use of the London construction Programme does not require Section 20 Notice consultation.

All other durations within the programme are the same. Home for Haringey also issued a schedule of indicative Milestone Dates that they requested to be incorporated into the programme. These have been included, where relevant to the works.

The assumptions set out below have been adopted in the development of the programmes.

From the original brief for a one-year design period and a two-year construction period, we have stablished that the design period can be completed within 6 months and, after procurement of seven months. The construction works can be completed within just under a year. Overall Ridge and Partners believe that the overall project can be completed around 2 years, significantly more quickly than the three years set out within the investment strategy.

Design – the design timelines included within the programme have been agreed by the design team as realistic. The key to maintaining this programme will be Client approval within the 5 days set out within our scope of services and the input of “other internal Stakeholders.” Ridge and Partners with Homes for Haringey project manager will actively engage with these Stakeholders.

Procurement – the programme(s) have set out the OJEU and London Construction Programme options. Whichever route is adopted the Home for Haringey Governance approval is consistent. This requires the preparation of an approval report by the project team, legal comment, financial comment and an overarching report prepared for CEO and Procurement Committee approval. Once this is approved formal appointment of the Main contractor can be announced under OJEU and the standstill period commences.

Construction – the construction works have been broken down into Decent Homes and the Modular Units.

Decent Homes – from the advice provided from **REDACTED** from Homes for Haringey, **REDACTED** who have been undertaking Decent Homes works in Haringey have delivered 10 homes every 4 weeks for each site manager. This is based on tenant properties. The assumption has been made that there is no differentiation between in duration between Tenant and leaseholds properties, although we are aware that there will be no internal works within the leasehold properties.

We have developed the programme with 4 site managers. Despite the productivity levels outlined above it wouldn’t be practical to “flood the estate” with site managers as delivery logistics and sub contract labour would not be able to deliver to this demand.

The site could be delivered with 3 site managers over a longer duration and not impact the overall programme but provide less float between the decent homes works and the Modular Units installation.

Modular Units – the programme of the modular units drives the construction programme. From meetings and dialogue with **REDACTED** at **REDACTED** we have developed the programme. The pre-construction period is the key driver where from appointment the Modular Unit provider will develop their detailed design to suit their manufacturing process and potentially prepare a “controlled sample” to be approved by the client prior to the Units being manufactured en mass. 14 weeks have been allowed for the design development and “control sample.” Once approved the production of 229 units is 16 weeks. This duration will be driven by the production capacity of the factory and available production slots within the manufacturers order book. This will be key in selecting a Modular Unit provider.

REDACTED proposed that once the units are manufactured they will be stored in their dedicated 28-acre storage compound next to their factory and then be delivered to site on a “just in time” basis. The units will be transported on the back of lorries, carrying up to 4 units on each lorry. They would target to have 5 days’ worth of lifting in stock at any one time, circa 25 – 45 units.

Once on site a 350T extending arm crane will be used to locate the units. The key driver to the programme is the number of lift that can be undertaken in any one day, as this will have a direct impact on cost, due to the expense of the crane hire. **REDACTED** wanted to target 5-6 lifts per day as a minimum increasing to 10 where viable.

The risk to achieving the lift volumes **REDACTED** propose is efficient and effective enabling works that need to be undertaken. The existing unit needs to be removed, by the crane, either with or without asbestos removed, foundations need to be prepared so that the units can be dropped onto a secure fixing. Services connections will be located in the tenanted buildings during the Decent Homes works. The services connections within the leasehold properties will need to be reviewed on an individual basis and adjusted accordingly.

Once installed there will be some finishing works to the units, but the intent is that they are swapped and operational within a day.

See **Appendix** for programmes.

10.2 Key Milestone Dates

Key milestone dates extracted from the programme above include the following;

- Haringey Gateway 1 client approval — 11th June 2018
- Haringey Gateway 2-3 client approval — 13th August 2018
- Haringey Gateway 4-5 client approval — 22nd October 2018

OJEU

- Start Date — 30th April 2019
- Completion Date — 20th February 2020
- End of Defects Period — 20th February 2021

LCP

- Start Date — 1st April 2019
- Completion Date — 24th December 2019
- End of Defects Period — 24th December 2020

10.4 Procurement

The procurement strategy for the works have a number of strands that need to be reviewed to conclude the most appropriate route.

OJEU v London Construction Programme

From the programme we have established that the OJEU process is longer than the use of the London Construction Programme. The LCP approximately reduces the overall programme by 3 months. But the benefit of this needs to be balanced in that the OJEU process is delivering the works 12 months earlier than the current Investment Strategy.

The benefit of the LCP is that a shortlist of main contractors is already established that can be directly approached to tender for the works and there is no requirement to undertake Section 20 consultation.

The negative to the use of the LCP is

- that main contractors in the approved framework lot may not have the appropriate experience to undertake Decent homes and Modular Units.
- The main contractors in the approved framework lot may not have the capacity to undertake the works so the selection is reduced and may not provide sufficient competition.

The contractors on the London Construction Programme for North London, Housing, £5m + works are
REDACTED
REDACTED
REDACTED
REDACTED
REDACTED
REDACTED
REDACTED
REDACTED

The benefit of the OJEU process is that there is the capacity to reach out to the whole contracting market and identify specialists who may have the interest, experience and capacity to undertake the works.
A Prior Identification Notice is issued to signal to the contracting market that in the near future that the works will be procured. In addition, as a project team we will also be speaking to the contracting market to make them aware of the impeding works and to express an interest in the works.

A Pre-Qualification Questionnaire is then issued for interested parties to respond to a set of questions developed by the project team and Haringey so that they demonstrate their capability and capacity to undertake the works. From the responses received we will then prepare a short list of interested parties who we will then invite to tender for the works.

From this stage onwards, the same process is followed as with the LCP procurement. The key difference is that we have selected a tender list that has demonstrated the capacity and capability to undertake the specified works.

Initial thoughts are that with the complexity of the logistics of these works, unless we can identify that at least 4 of the contractors on the LCP have the relevant capability and capacity we follow the OJEU route. We are still delivering the works in a shorter period than identified by the Investment Strategy.

One Main contractor or two separate contracts.

The types of work being undertaken for the Decent Homes and the Modular units are very different and require very different skill sets and organisations. We have not found any Modular Builders who have undertaken Decent Homes works or conversely there are no Main Contractors who have their own modular unit factory. This does raise the question if the works should be two separate contracts rather than one.

Whilst viable the risk sits with the coordination of the works. From the feasibility study we have established that the location and commissioning of the services within the dwelling need to coordinated with the modular unit, the foundations need to be coordinated and the removal of the existing pod with its asbestos. Failure of any of these activities will impact programme, the ability for units to be replaced in one day and tenants remain in occupation of the dwelling. The management of the crane hire would need to be shared and managed with the removal of the existing pod and asbestos and installation of the new Modular units.

Separating the contracts may generate savings of management costs and main contractors profit margins from Modular Contractor's works but retains risk with Haringey. From discussions with REDACTED and their experience at Enfield we identified that the role of the liaison officer in keeping the tenants and leaseholders informed was very important in the smooth management of the works on site. Additionally, there are health and safety risks in separating the works and how the overlap is managed.

In summary we believe that there should be one Main contractor taking overall responsibility for the management and coordination of the works, therefore transferring the risks. As the design is developed and the project team start to start to engage with the contracting market we will further identify the risk and seek to mitigate them as far as possible, to reduce a risk premium on the contract sum.

Form of contract

Decent Homes works

The constraints of the Decent homes works is that with the high volume of dwellings and restriction and ease of access it is not economic from a programme or consultant fee basis to inspect every building, to prepare a fully detailed scope of works for the Main Contractor to price. For the Main Contractor to submit a tender price he would also need to inspect all the dwellings. This would be particularly time consuming if there are up to five main contractors tendering for the works.

This approach was not adopted in the previous Decent Homes framework with **REDACTED**. Instead a stock condition survey was prepared by a surveyor and this information was used to inform the extent of works required. Scopes of works were also developed for contractors to price against. When the works were undertaken a clerk of works was used to inspect the dwelling to confirm the works undertaken by **REDACTED**. It is understood that **REDACTED**' were employed on a lump sum contract.

We would propose that the we don't enter into a lump sum with the Main Contractor and that the Decent Homes works are re measurable. At tender we will secure a price for a shopping list of works and as they are undertaken we will monitor expenditure against the cost estimate. The key to the accuracy of the contract value for these works will be level of detail in the stock condition survey. In this instance Homes for Haringey are paying for the works undertaken.

Modular Units

The Modular Unit contracting market operates under a design and build environment. The market is established that they contract under a performance specification. From appointment they will then develop their own design and seek approval from the design team and Client prior to the constructing a “control sample.” Once the control sample is approved then there is no real scope for change in the design once production starts. If there is change, dependent upon the extent of the change, it may cause a break in the production run, result in abortive costs due to the loss of production and the need to re-book the production slot, impacting on the programme.

Initial thoughts.

A contract needs to be developed where we accommodate both procurement routes for the varying types of works to be undertaken. In parallel this will also need to be tested with the contracting market so that they are comfortable with the apportionment of risk on the works. Not that the risk is heavily weighted to the main contractor that he has any interest in the works or that it is has limited risk to the main contractor and more on Haringey that it can be sustained by Haringey, it has to be balanced

We also need to start engaging with the contracting market earlier in our design process due to the complex nature of the project. Whilst we have initially started discussions with a Modular contractor we must ensure that our thoughts are compatible with other Modular contractors, their input will be invaluable for the logistical success of the project. Early engagement of a Modular contractor could provide greater clarity on the modular construction process but carries the risk that of exclusion of other interested parties due to the limited number of parties who may be interested in undertaking the works.

11. PROJECT RISK REGISTER

The feasibility study has identified a number of risks associated to the project that will need to be managed and further developed into a formal risk register as the project progress's. the key risks identified within this report are:-

- Access to the rear of the site to undertake the works.
- Condition of the existing properties to install a new modular pod.
- Identifying a suitable contractor to undertake the works that can manage Decent Homes and modular construction.
- Interest in the market place to undertake the works at a competitive rate.
- Replacing the modular pod in one day so tenants and leaseholders remain in their properties.
- Asbestos in the existing modular pods.
- Planning approval within the conservation area
- Budgetary control of the works
- Connections of the services from the existing properties to the new modular pods in the tenanted and leaseholder properties.
- Buy in from the tenants that the disruption during the works is palatable.
- Agreement with the leaseholders regarding financial contributions toward the works.
- Agreement with the leaseholders the internal quality of the finish of the of the pods.
- Delay to the project due to poor weather.
- Existing utilities is not sufficiently robust to the high volume of new connections being made.
- Concluding a suitable foundation solution to the pods for installation with the existing pods in situ.

12. RECOMMENDATIONS AND CONCLUSIONS

The report has included a significant review of the existing information and an initial investigation about delivering the solutions within the current contracting market.

The next stage of the project is to commence Stage 1-2 design, Concept and Developed design. This Stage 1 feasibility study has identified

- A need to undertake the works in two phases splitting the Decent Homes and Pods installations, due to the different nature of the works and skill sets required by a main contractor.

- Develop a procurement strategy that accommodates the Decent Homes works that are a measured schedule of rates and the design and build nature if the Pod installation.

- Develop a delivery strategy for the leasehold properties where the quality and layout of finishes is different in every leasehold unit.

- Undertake as much up front design with the Decent Homes works as possible to de risk the project.

- Commence surveys to the properties as soon as possible to maintain the project master programme.

- Identify, procure and undertaken further investigations necessary as soon as possible.

- Commence regular meetings with stakeholders to ensure that the design develops with their needs accommodated including, Planning, Building Control, Leasehold Team, Leaseholders,Residents Associations, Procurement Team,

13. LIMITATIONS AND EXCLUSIONS

Limitations and Exclusions have been set out in the cost estimate section. In addition, the following limitations and exclusions apply to this report.

- Surveys were visual only and non-intrusive, Ridge and Partners were not able to identify all Isolated and redundant services.
- Proposed layouts provided are indicative only.
- Ridge and Partners have not traced exact utilities and services routes and a detailed services layout survey should be instructed ahead of any detailed design to understand impact on excavation and any civil works.