2.1 Overall Approach to the Delivery of the Demolition Works

The Demolition Works at the Pow Beck Site will:

- Be undertaken by our specialist demolition teams
- Be delivered by fully trained, skilled and experienced staff and operatives who will all be CITB
 Trained
- Be supervised by a dedicated full time Site Supervisor
- With daily liaison, via the Demolition Supervisor with Client Team and all stakeholders, be undertaken in a manner which eliminates disruption to all involved and affected by the project
- Be delivered safely, on programme, and within budget
- Be delivered beyond "expected quality" to exceed the expectations of the Client
- Be undertaken with the utmost environmental awareness and protection

Regulatory Approvals and Consents

All works will be undertaken, at all times, in full regulatory compliance with the following (non-exhaustive) approvals/requirements:

- Section 80/81 Demolition Notices
- HSE Asbestos notifications
- Footpath closure/diversion permits/orders
- Temporary Traffic Orders
- The Construction (Design and Management) Regulations 2015
- Managing Construction for Health and Safety Construction (Design and Management)
 Regulations 2015 Approved Code of Practice
- Managing Health and Safety in Construction 2007
- Factories Act 1961
- The Management of Health and Safety at Work Regulations 1999
- Health and Safety at Work Act 1974
- The Construction (General Provisions) Regulations 1961
- The Lifting Operations and Lifting Equipment Regulations 1998
- The Control of Noise at Work Regulations 2005
- The Health and Safety (First Aid) Regulations 1981
- The Workplace (Health, Safety and Welfare) Regulations 1992
- The Dangerous Substance and Explosive Atmospheres Regulations 2002
- Provision and Use of Work Equipment Regulations 1998
- COSHH Control of Substances Hazardous to Health Regulations 2002
- The Environmental Protection Act 1990
- The Control of Pollution Act 1974
- The Control of Asbestos Regulations 2006
- The Hazardous Waste Regulations 2005 as amended
- The Clean Air Acts 1993
- Working at Height Regulations 2005

Warning & Information Signage

The demolition work area perimeter will be adequately signed with appropriate warning and information signs. All warning signage will be inspected daily and maintained, repaired or replaced as necessary. Inspection and maintenance of signage will be recorded in the daily site log. Warning Signage to be used will include but not be limited to the examples shown adjacent.

A Works Information Point will be established at the entrance to the demolition works area and at suitable locations within the work area.

Work information points will display details of what activities are being undertaken within the work area, the main hazards, controls in place and the name and contact details of the responsible manager/supervisor for the work area. The Works Information can also act as a first aid and fire alarm point.

Use of Plant & Equipment

All personnel will be competently trained in the use and or operation of the equipment or plant item they are using to complete the works. Record of proof of competencies and certifications will be maintained.

All plant and equipment will be inspected regularly and statutory tests and inspections maintained. Daily plant checks will be completed and recorded by the operator at the start of each sift. All plant and equipment inspections will be recorded on a plant and equipment register, all test and inspection certification will also be held on file for the duration of the project as required by the LOLER and PUWER regulations

Plant and machinery will be parked up outside of working hours in a safe and secure location, keys will be removed and door locked. Drip trays or plant nappies will be installed under engine bays and hydraulic services to ensure any oil and fuel leakage is container

2.5 Site Establishment

Site Setting

The Pow Beck site comprises of former detached council care facility covering Approximately 0.75 Acres of single- and two-story buildings. The site is located off Meadow Road, All work areas will be securely fenced to ensure no unauthorised personnel enters the demolition area.



Access and Egress to the Site

The main access to the site will be via the Main gate on Meadow Road

Dilapidation photographs and records will be made of both access points prior to works commencing.

Access to the site shall be clearly routed by means of effective signing. Constructional traffic shall be prohibited from using other routes to the site other than those approved.

Site Boundaries

Hoarding

The site will be securely fenced to a minimum of 1.8m in height and of such a standard to prevent unauthorised access to the works area. Only those involved in the demolition will be allowed access. Access required by anyone other than the Demolition Team will need to be arranged with the Demolition Supervisor or Demolition Operations Manager, who will determine what safety controls to be put in place before access need can be granted.

All fences/hoardings shall be inspected twice daily and any defects or breaches will be rectified immediately. Any replacement hoarding/fencing will be erected to the same standard as the surrounding areas.

Signage

The boundary of the works will be adequately signed with relevant warning signs. These signs will be inspected on a daily basis and maintained at all times. A record of signage inspection is to be kept in the site's diary

Site Security

Site security will operate 24 hrs a day, all site operatives will check in and out daily through the main gate and are subject to random searches. Each work area will have a gateman provided at the access/egress point to prevent unauthorised access to the site, sign in and sign out visitors.

The Gateman will ensure that only authorised delivery and collection vehicles and personnel enter our site compound and site areas.

At the site safety induction, all personnel will be briefed on the security measures in force, and compliance with these by individuals will be constantly monitored. Staff will be required to sign they have been inducted and understand all the issues covering work at this location. Any transgression of these rules could lead to immediate removal from the site. Certain transgressions will require immediate removal from site whilst others will require re-induction.

All visitors to the site will be requested to sign in with security who will direct them to the site offices. All visitors who intend to go onto site will receive a brief induction and ALL visitors will be escorted by a supervisor when on site unless the visitor in question has undertaken a full site induction and has demonstrated they have the appropriate CSCS registration. This will be without exception.

Site Compound

The site compound will comprise of storage containers, refuelling area and a yard for demolition plant and equipment. The site offices and welfare facilities will also be located in the compound.

The compound will be hard surfaced, as to reduce the potential for the creation of mud and debris and to provide a safe walking surface for pedestrians.

Whilst the site compound is a temporary facility, it will be planned and constructed to a high standard. The compound will be fully serviced, cleaned and maintained throughout the contract duration. Any defects or degradation of buildings or structures will be rectified accordingly.

Welfare Facilities

We will provide suitable and sufficient site welfare facilities in accordance with the requirements or Regulations 9, 13 and 22 and Schedule 2 of The Construction (Design and Management) Regulations 2015.

Welfare facilities for operatives will comprise of adequate:

- Canteen/Eating Area
- Drying Rooms
- Suitable Toilets / Washing Facilities

The welfare arrangements will:

- Be easily and safely accessible
- Be kept clean and orderly
- Be adequately ventilated and lit
- Have a place to store normal and work clothing and to dry it when wet
- Have facilities for rest in a non-smoking atmosphere
- Have a supply of drinking water (clearly marked) and cups
- Have facilities for boiling water and heating food
- Have facilities for eating food etc.
- Have facilities that will be safely maintained
- Have separate toilet, washing and changing facilities for male and female staff, or a lockable door
- Not be used for storage of materials or plant
- Portable facilities will be provided only as an interim measure and for remote or short-term work
- Running water for washing and flushing will be provided as soon as possible. Hand wash basins
 with hot / warm water, soap, (nailbrushes when required or when working with lead) and towels
 or dryers will be provided
- Showers will be provided where work is particularly dirty e.g. during work in contaminated ground
- Specialist decontamination facilities shall be established where identified as necessary for activities such as asbestos removal

Car Parking

Adequate car parking spaces for both site staff and visitors will be provided and clearly marked. Local residences and businesses accesses shall not be blocked.

Safe walking routes for pedestrians from the car park to the offices will be adequately marked and signed.

Storage, Transportation and Handling of Materials

Our overall approach on this contract is summarised below:

All deliveries will be planned to a 'Just in Time' schedule

- Deliveries will be carefully planned and phased in so that either materials are placed and used immediately or they are safely stored to prevent the possibility of damage
- A dedicated secure storage area for miscellaneous materials will be provided
- A bespoke and secure storage area for fuels and lubricants will be established
- All fuels, lubricants and other potentially harmful liquids will be stored within the designated area either in bunded tanks, on drip trays, or with residue collection sumps with a minimum capacity of 110% of the contents of the vessel
- Spill kits, drip trays and other emergency equipment will be maintained on site at all times
- Bunding will be regularly inspected and emptied as required. Inspections and emptying shall be recorded in the site's diary
- A high level of housekeeping will be implemented on site with dedicated service gang controlling/removing/segregating and recycling rubbish and waste materials

2.6 Site Transport Arrangements

Site Access

The main access to the site will be via the Main Gate on Meadow Road. The site access will be designed to reduce the possibility of deliveries queuing on the roads outside.

In the initial phase of the works, it will be necessary for site to have strict controls of deliveries of large plant to ensure that they are met at the gates and escorted quickly and safely onto site. Standing instructions to all deliveries will be to wait at a nearby lay-by or other suitable area and phone to arrange access to the site. Vehicular traffic will be called from there as required to site.

Signage and Lighting

We will ensure:

- Prominent signage is displayed on site to enforce routing to and from the site
- Speed restriction signage is displayed when entering the site
- Hauliers are made aware traffic routes as agreed and determined on the site's Traffic Management Drawings

The number, location and nature of offsite and onsite signage will be determined in the site's Traffic Management Plan and on specific TM Drawings.

The site's boundary will be adequately signed with relevant warning signs. These signs will be inspected on a daily basis and maintained at all times. A record of signage inspection is to be kept in the site diary.

The following signage will be required in the Works;

- Barriers to prevent access to demolition works areas
- Danger Demolition in Progress signs
- Speed Limits
- Pedestrian Crossings
- No Pedestrian Access Signs
- General Warning Signs (i.e. Works Entrance, Works Exit, Caution Lorries Turning, Restricted Height Access, etc.)

Pedestrian Routes

As required by the Construction (Design & Management) Regulations 2015, we will segregate vehicular and pedestrian traffic. There will be a dedicated pedestrian entrance to the site and all walkways will be signed and suitably barriered/fenced. Pedestrian barriers will be erected to ensure pedestrian routes are segregated from traffic routes.

Deliveries

Deliveries of large items will be coordinated to avoid peak traffic times for local residents and neighbouring properties. Some amount of traffic will be inevitable during this peak time and Banksmen will be used to ensure the safety of both the public and site Personnel. Banksmen will also ensure that the traffic management procedures are followed. Any breaches of the traffic management procedures will be dealt with by the Demolition Operations Manager (Site Manager) using the site disciplinary procedures.

At the site entrance traffic will be logged and checked and all drivers given any necessary H&S advice before entering the site. There will be no parking for any vehicles on site and once vehicles have been either unloaded or loaded then they will be required to leave the site.

2.6 Works Methodology

2.6.1 Services

Prior to commencement of any works, a full survey shall be undertaken of all existing services equipment to confirm that they been made redundant and disconnected/decommissioned Utilities Manager for this project, He will then use this information to complete our Limitation of Access Forms (see above) to allow works to commence in a safe and compliant manner.

Any service diversions to the buildings will be carried out by the client before any demolition works begin. All surrounding services within the site that cannot be diverted will be fully protected.

Drainage Networks

The site has an extensive surface, foul and process water drainage network. All affected surface water drains are to be temporarily sealed up for the duration of the works, or permanently sealed in accordance with the Tender Documents. From the drainage drawings supplied, local knowledge of Rolls-Royce staff, and also a BGCL drainage survey, it will be possible to formulate the strategy for the protection of the drainage network.

Major drains and drains that have insufficient cover to them to allow the passage of large plant will be identified and fenced off with only one crossing point allowed. This crossing point will then be protected from the loads applied by plant crossing it by means of spreader plates, navvy mats, or a raft of crushed material.

Manhole covers that are at risk of damage will be protected by placing road plates over to avoid any damage.

Environmental Protection of the Drainage Network

To protect the drainage system from debris and spills, all access to the drains will be temporarily blocked in the work areas. This will mainly be by blocking gulleys to prevent any access to the drains. This will be done by a range of measures including sandbags with a thin layer of concrete protection, stoppers in the gully outfall, and a road plate to protect the frame, which will be the preferred and easiest means of achieving this.

Water

We will make connections where necessary to each supply and obtain any relevant usage consents from the local water company. We will use our Permit system to ensure that all water usage is metered and that these supplies are all disconnected once the works are complete.

2.6.2 Removal of Asbestos Containing Materials

Notifiable Asbestos

Any Notifiable Asbestos will be removed by our Asbestos Removal Partner Asbestos Decontamination Services Ltd. All asbestos will be removed in accordance with the Control of Asbestos Regulations 2012.

Non-Notifiable Asbestos

All Non-Notifiable products are removed by our Asbestos Removal Team. This will be carried out in advance of the soft strip. The team will move through each building in turn removing products and bagging for disposal. The area will then be signed off to allow demolition works to commence.

All of our operatives are trained and certified to work with bonded asbestos products as required by the Control of Asbestos Regulations (2006). Each element of asbestos to be removed will be treated differently due to its type and location within the structure of the building. From the Type II (Management Survey) information that is available as part of the tender documents, four main types of Non Notifiable asbestos appear to be present.

Asbestos Cement Products

Asbestos Cement Sheeting to some of the roofs and roof voids is generally removed by unscrewing them and transporting them whole. This will be done to the boundary areas of the site. The sheets are removed whole to prevent fibre release and are kept damp throughout the operation. Working out of scaffold towers, the "J" bolts will be cut and the Asbestos Cement Sheets slid into the platform. Sheets will be stacked whole onto pallets and placed in a fully lined open skip for removal off site.

2.6.3 Demolition Methods

Soft Strip

Once areas have been stripped of asbestos wastes, or to facilitate access to asbestos wastes, soft strip will commence. In confined areas the soft strip will be done by hand, using small tools. The main purpose of the soft strip will be to segregate differing waste streams at the source to aid recycling.

Soft strip will be carried out in a controlled manner to produce pulses of each waste type, this will reduce the need for a secondary sorting of waste streams outside the blocks and reduce the amount of debris that is on site at any given point.

Drop zones will be established and fenced around all sides of the building. Lightweight materials will not be dropped due to their propensity to become wind borne.

All plant on roofs will be cut down and removed as part of the main demolition process.

In the larger buildings, the soft strip will be carried out using mechanical means; this will be in the form of bobcat skid-steers and mini-excavators. The processes of soft strip are the same when done mechanically.

Structural Demolition Methods

The Brick buildings with will be demolished using an excavator with pulveriser attachments. This method reduces vibration and noise and dust.

The brick wall arisings will be stockpiled for reprocessing on site to produce a usable material for inclusion on onsite works. Any surplus will be sent to a local recycling facility.

The wall to the rear of the building will be retained until the end of the works to provide screening to the residential properties to the rear of the site.

The excavators will be positioned to the rear of the buildings with the dust boss located to the side damping down all the works as they progress. The top section of brickwork will be removed. This gives the operator good vision of the roof section that will be removed in between the internal walls allowing the roof section to fall inside the footprint of the building onto the first floor. This will then be cleared; the walls will be



reduced down to first floor slab level. This process will continue systematically along the building leaving in the front as long as possible to create a screen to control the dust omissions. The front wall will then be brought inwards onto the building slab .A second excavator will work alongside the machine segregating waste streams for recycling. The process will be repeated for each bay along the length of the building.

Slab Removal

The removal of the slab will be carried out by a lifting and snapping technique to minimise the hydraulic breakers.

The concrete slab will be stockpiled separately to the masonry as this will provide a higher standard of material for use in future on site works. We use the brickwork product to fill voids allowing the higher grade concrete to be used in the future permanent works.

Foundation Removal

The foundations will be grubbed up after the main demolition phases have been completed. A voids will be backfilled with the site won material which will have been reprocessed in accorda with the specification. The backfill will be compacted to the specification for highways works a in a suitable condition for the follow-on contracts.

Crushing

The reprocessing area will be determined on site to give maximum protection to local residents and adjacent businesses.

The crushing area will be fenced from other areas of the site and the crushing plant sited with due regard to noise and dust issues.

All CL crushers are fitted with dust suppression measures and operated with this as a primary concern.

All stockpiles will be kept damp to reduce windborne dust. Sheeting of stockpiles will be considered as a last resort

should other methods be ineffective. Dust and noise will be continually monitored to ensure that nuisance is not created.

Crushing Operations

The majority of the concrete sent to the reprocessing area will require secondary processing by a mechanical muncher to remove reinforcement. The product will be generally crushed to a 6F2 material and where possible brick and concrete will be separated to provide different products.

Plant and Equipment

All plant operators will be trained in the operation of their particular piece of plant and will be certified accordingly. Daily plant inspections will be carried out, with servicing and maintenance being carried out based on these findings.

Wagon Movements

Various wagons will remove waste streams for recycling and reprocessing, these will be organised so that there is no queuing of traffic on the main roads approaching the site and where possible major deliveries will be arranged for off peak hours to reduce inconvenience to local residents and businesses. If HGVs are unable to be sheeted from the ground, then they will be required to be fitted with auto-sheeting systems to remove the possibility of falls from height. The method of sheeting will be determined by the site Foreman prior to loading of the wagon.

Project Specific Environmental Considerations

We appreciate that the demolition works to be undertaken at the Pow Beck have the potential to give rise to environmental impacts should the works not be planned, carried out and managed in a responsible and diligent way.

We have summarised the main environmental issues we have identified based on the site and the surrounding environments, together with our proposed mitigating measures based on demonstrable experience of similar projects.