Specification Demolition The Pirbright Institute Ref 150029

Version Control:

Version	Date	Author	Changes
A	27th April 2015	Stephen Oliver – The Pirbright Institute Project Manager	Compressed document

Attachments:

1 Aims –

1.1 To undertake demolition works of up to 8 areas (as per details provided) and remove all materials, including hazardous waste, in a safe manner using correct procedures and documentation.

2 Objectives –

2.1 To create additional space for further development of the Pirbright site in accordance with the proposals contained in the redevelopment Master plan.

3 Background to the Requirement –

3.1 Tenderers will be required to provide evidence of experience of similar demolition activities and demonstrate a sound knowledge of handling/disposal of hazardous waste and the relevant waste permits etc. as required by law. They will also be required to demonstrate their adherence to health and safety regulations and produce documentation providing evidence of their Health and Safety record for the last 5 years. Examples of similar works recently carried out will also be required and evidence of staff training on demolition equipment.

4 Scope –

4.1 The Pirbright Demolition Programme will comprise 3 phases, the first being the decontamination and controlled demolition of up to 8 structures. This tender is for the first phase only. The contractor will be responsible for any building related decontamination (prior and post demolition) that is deemed necessary which may include asbestos, chemical residue or refrigerants. However, all buildings will have been decommissioned and decontaminated from any previous use as a scientific laboratory following the requirements of our internal Bio security team together with their sign off confirming the laboratories have been decontaminated.

4.2 All services will be disconnected by the Institute prior to demolition and all notices will have been served. All materials resulting from the demolition works are to be disposed of under statutory regulations with the correct documentation submitted for any hazardous materials found. Decontamination certificates will be required prior to demolition along

with Risk Assessments and Method Statements. The Contractor will be expected to ensure safe means of access and egress to their site areas along with secure hoarding and debris netting. Provision of hoarding to create a separate area within the Containment Area will be required. Provision of dust control, or vehicle washing facilities, will be agreed dependent upon weather conditions. Regular site meetings will be held to update on progress, monitor the quality of the work and to act as a forum for any issues. Evidence of Waste Acceptance Criteria and Waste Transfer Notifications will be required by the Institute as part of the overall suite of documentation. Upon completion, the Contractor will leave the site in accordance with the contract stipulations. The site will be inspected to ensure all works have been completed satisfactorily and all temporary works removed.

5 Work Packages

5.1 Item 1 – The workshops comprise of concrete panelled walls with concrete columns and portal frame. The roof is of an asbestos cement sheet overlaid on steel angle support rails. These will need to be tested but typically do not contain high levels of asbestos and the asbestos fibres are mainly encapsulated in the concrete composition. Therefore the sheets can be deemed to be non-notifiable to the HSE and be removed without specialist asbestos removal contractors provided suitable PPE is worn and the sheets remain intact and not broken. The sheets must be disposed of in a licensed waste receiving station. The roof sheets are fixed to the steel support rails by the means of steel J type bolt fixings. Dimensions are approximately 60m x 4m. The building is to be demolished to slab level only whereby the slab is left intact for future use.

5.2 Item 2 – Braithwaite holding tanks x 3. Steel construction consisting of bolted steel modular panels built off raised brick pillars. Formerly used to store and discharge Sodium Hydroxide and effluent into the main sewage system. The contractor will be required to safely dispose of the existing residue in the tanks which is approximately 450mm in depth. Certification of recognised cleaning & disposal will be required. The brick pillars sit on a concrete slab both of which will require breaking out and removal. Removal of the existing corrugated iron fencing will also be required. Each tank is approximately 24 x 6m. Ground levels will be reinstated upon removal of the slabs.

5.3 Item 3 – Effluent Sterilizing Unit - Tipping buckets site (Disused). The plant has not been used for more than five years and is redundant. It comprises a recessed concrete tank area with one small prefabricated building and further recessed (approx. 4m) concrete tanks with steel grilles as covers. The contents will need to be tested to ascertain if the liquid remaining in the tanks is contaminated. The contents will need to be pumped out and taken away via tanker to a licensed disposal point. The concrete structure is to be removed and the site backfilled with suitable spoil from around the site. The ground level contours and landscaping reinstated with topsoil also provided. Overall area is 16 x 16m and approximately 4m depth. The expected fill volume is estimated to be approx. 1000m3. To gain access to this site a temporary bridge will need to be constructed over the new contained drains to protect them whilst vehicles manoeuvre over the drains to remove the arisings and refill with spoil. Details of this temporary bridge are attached at appendix A

5.4 Item 4 – Vaccine Research Department (VRD) Annex (Arbovirology) and boiler house. The building consists of a brick built laboratory with metal clad roof constructed approximately 40 years ago. Size is approximately 20m x 20m x 5m. The structure has standard brick dividing internal walls. The main corridor contains wall mounted service pipes and connections for electricity, steam, data and CO_2. Adjacent to this building is a brick constructed boiler house which is to be decommissioned and demolished. This building forms part of the bio-security containment area, therefore prior to demolition, the bio-security barrier must be in place. The Institute will reposition the bio-security barrier in advance of the demolition process. The building contains various cooling / refrigeration systems which will need to be decommissioned by an F gas approved contractor. Dimensions are approximately 4m x 4m. The VRD Annex is within the Containment Area but is in a position that allows it to be isolated from the surrounding lab buildings. The spoil created by the demolition of the VRD could be crushed and used as fill on Items 3 & 6 and there negate any issues of removing spoil from the Pirbright site. The contained drains connected to this building will need to be isolated, disconnected and sterilised prior to demolition

5.5 Item 5 – Redundant Contained Drainage. The drains referred to in this section are the redundant contained drains that have since been replaced. These drains have been a concern in the past but have not been used for many years. A thorough survey of the

position of the drains invert levels co-ordinates, inspection chambers, branches, pipe sizes, inlets and outlets will need to be verified (by the Institute) prior to any demolition works. Once decontaminated and certification issued, the drains can then be removed. The waste material may be considered hazardous waste and will have to be carefully disposed of. Upon removal, the ground will need to be made up to restore the ground levels and landscaping reinstated.

5.6 Item 6 – Cooling tanks. This plant area is currently in use but will be decommissioned and disconnected prior to demolition. It comprises a recessed concrete tank area with two small brick built storage units and 2 wooden sheds. The tanks are approx. 2m deep and have galvanised covers. Attached to the tanks is a steel duct approx. 50m in length. The tank contents are not contaminated as they are the product of the Site Effluent Heat Treatment Plant which is cooling prior to disposal to the foul drain. The contents will need to be pumped out and disposed of safely. The concrete structure is to be removed and the site backfilled with suitable spoil from around the site. The ground level contours and landscaping reinstated with topsoil also provided. The expected fill volume is estimated to be approx. 1200m3. Spoil from the demolition of this structure can be used to fill the void if considered suitable. Access to this site will be via the temporary bridge constructed over the new contained drains as previously stated.

5.7 Item 7 – Site Effluent Heat Treatment Plant (SEHTP) – steel fabricated building which will be fully decommissioned prior to demolition, however, all arisings resulting from the demolition process must be disposed of in accordance with Institute guidelines (BSEC-CON-16-V3). Attached to the building is an externally supported steam main approx. 80m in length which will need to be removed (see photo supplied). The building contains 11 steel tanks (dimensions provided on separate data sheet) which will require removal and disposal. If the contractor chooses to recycle or reclaim said tanks then the Institute would expect to see the tender price reflect this.

5.8 Item 8 – Garage/workshops & barns– comprising 7 prefabricated concrete garages currently used as workshops and storage. Also a hay barn consisting of steel upright supports with corrugated aluminium roof and side panels. Approx. size 12m wide x 24m long. Also included will be a smaller open fronted storage barn of similar construction

with dimensions of approx. 15m wide x 4m length. Any services (power and water) will be disconnected and made safe prior to demolition.

6 Requirement –

6.1 Mandatory requirements

Works during demolition will include arranging safe access to the site, ensuring that safe access routes exist for Pirbright Institute staff during the works, ensuring the contractor has properly set up the site i.e. installed temporary fencing around the site to prevent unauthorised access during the works, and ensure that impacts from the demolition works are taken into account such as noise and dust issues.

6.2 Desirable requirements

Works post completion of the demolition works may include a requirement to install temporary fencing to maintain security to surrounding facilities and any temporary works which may be required such as converting the area to temporary car park facilities.

NEC3 Terms & Conditions will be used for this package of works.

6.3 Information

Site plans and photographs of the areas contained in Phase 1 will be provided to tenderers.

6.4 Pricing

Tenderers are required to provide separate prices for each item listed on the pricing schedule included.

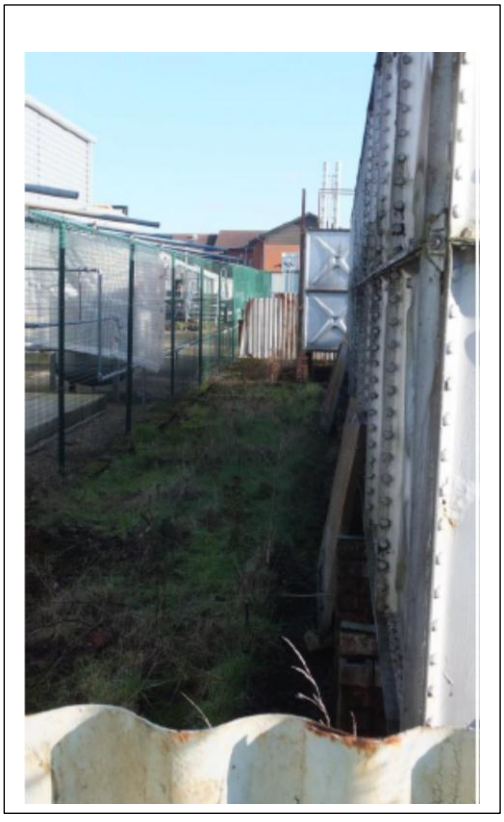
7 Timetable –

7.1 Timescales are not yet confirmed but it is envisaged that works would commence in June 2015 starting with the items not in the containment area and culminating with the VRD Annex. Bidders will be expected to provide a programme for each of the works although it would be expected for programmes to overlap if multiple items are awarded. Site access times will be from 8.00 until 17.00 on weekdays and 8.30 until 13.30 at weekends unless by prior agreement under special circumstances. Public Holidays working would also require prior agreement.

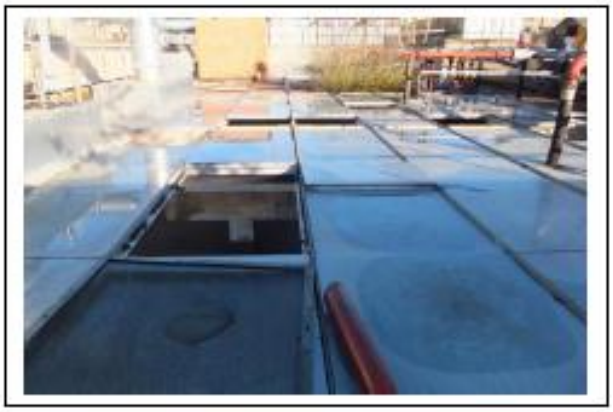
8 Evaluation Criteria –

9 Appendix

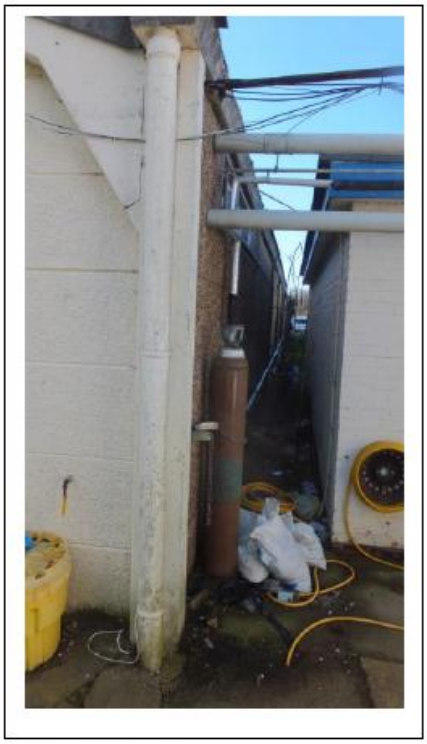
10 Braithwaite Tanks



11 Cooling Tanks

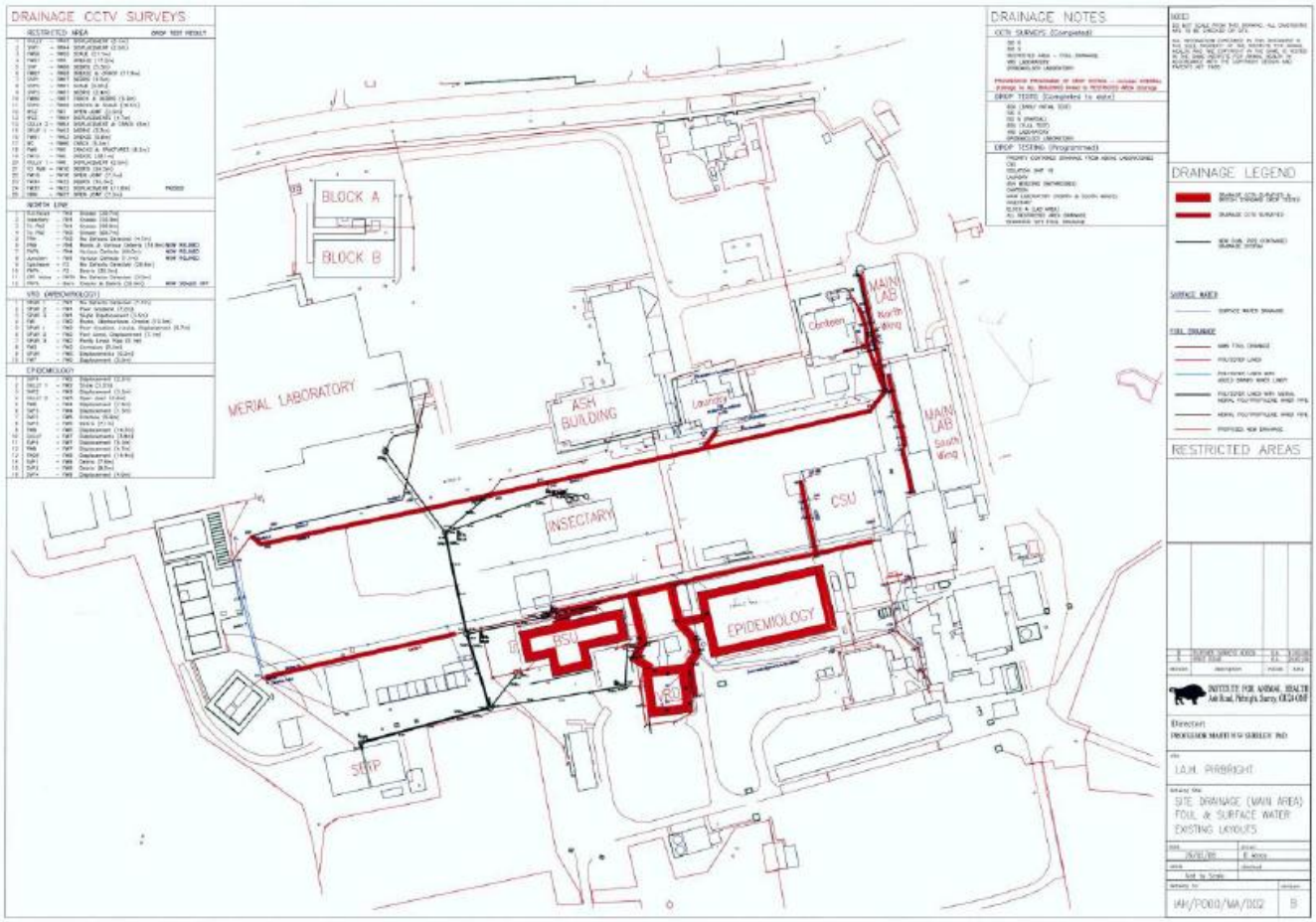


12 E and M Workshop

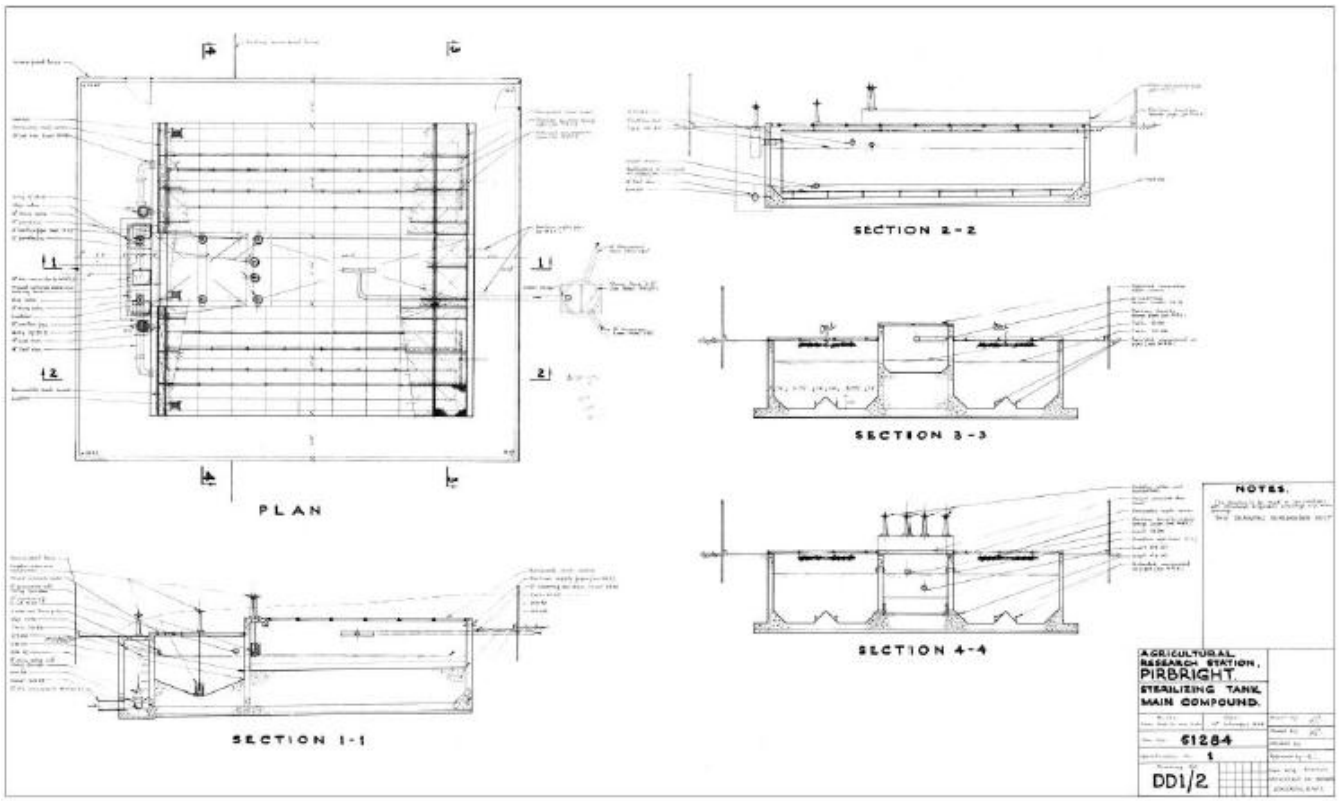


13 Old contained Drains

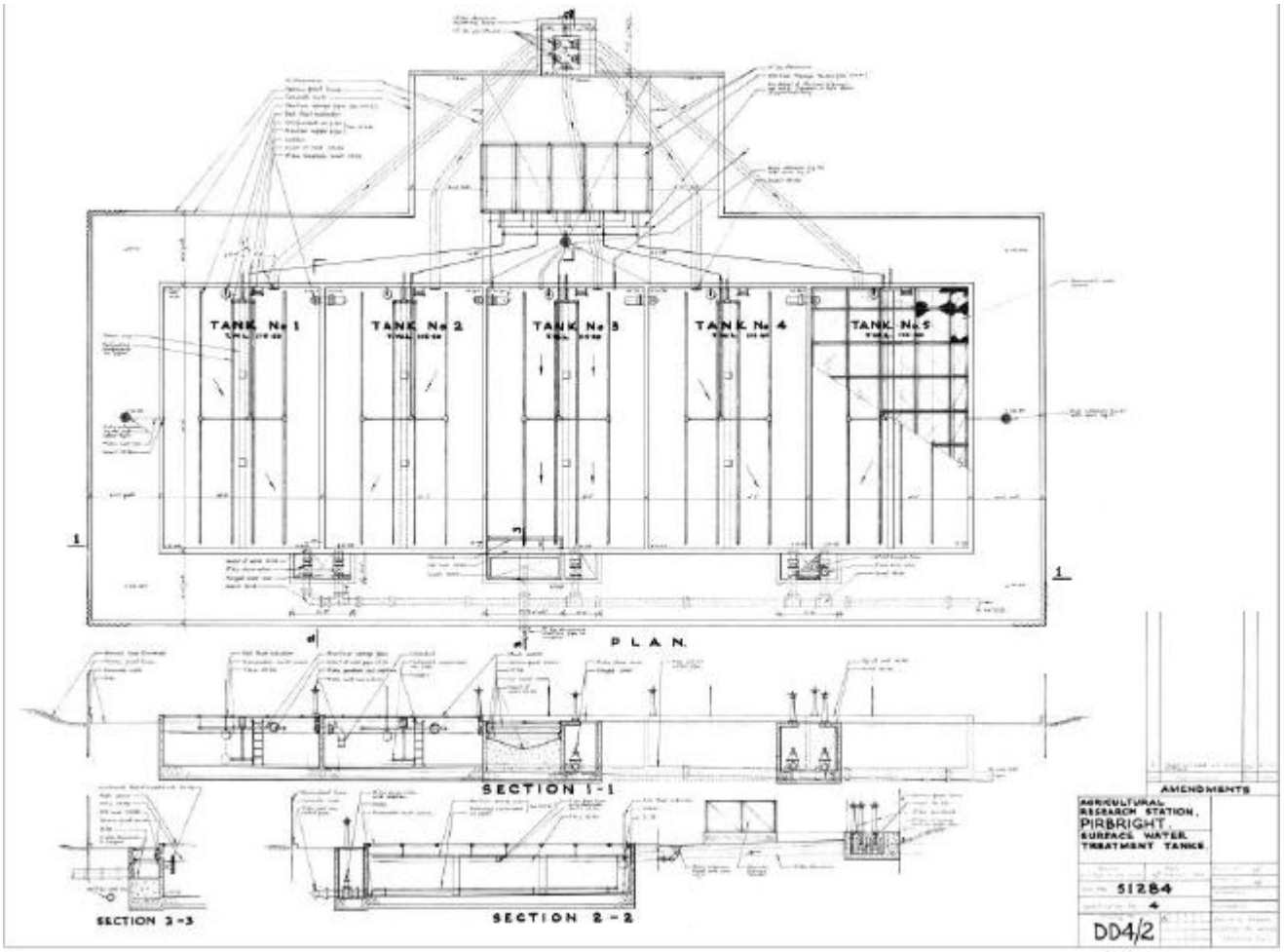
14 Pirbright Site Drainage –Main Area _ Foul and surface water existing layouts



15 Sterlising tank Main compound



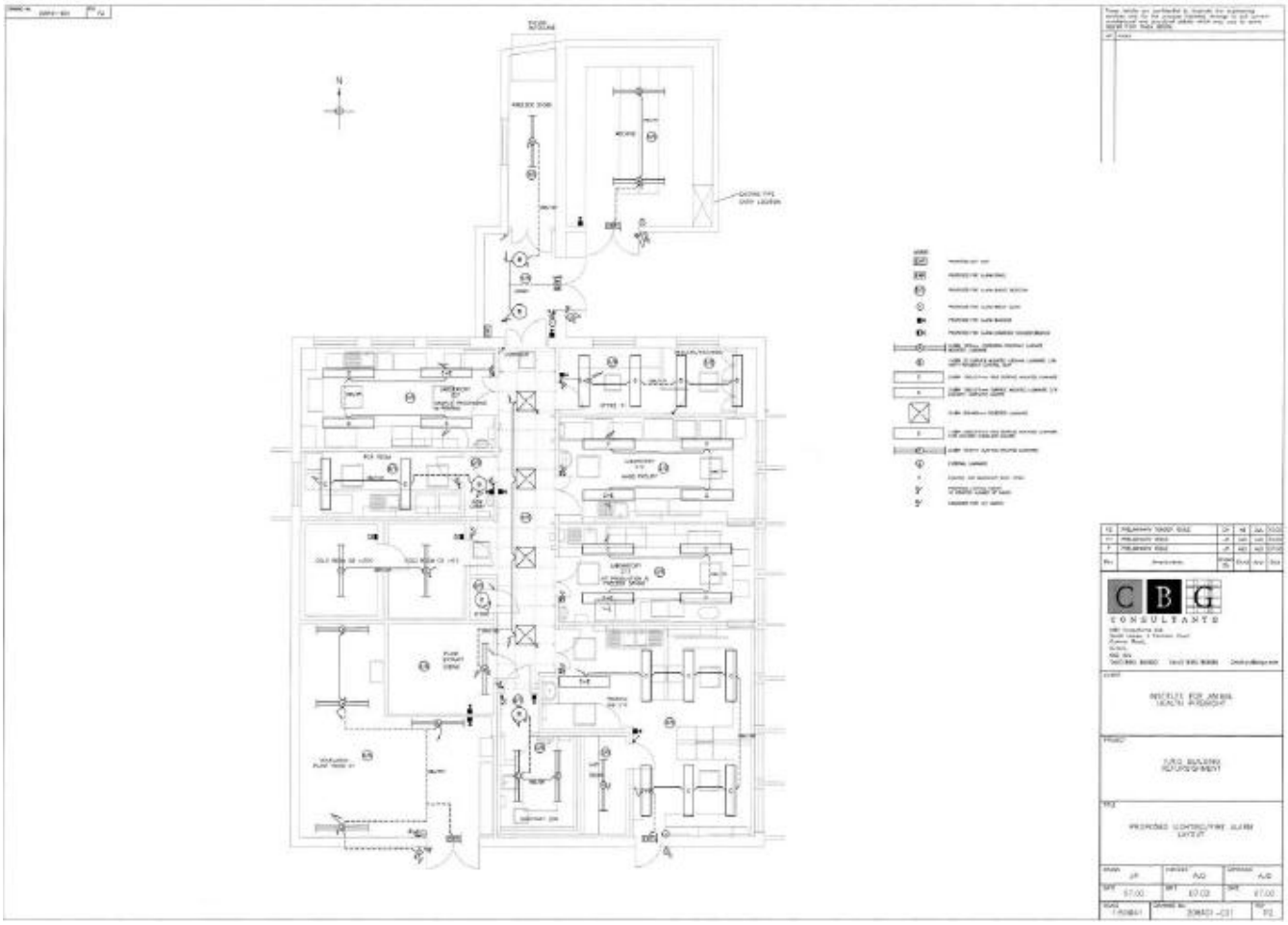
16 Surface Water Treatment tanks



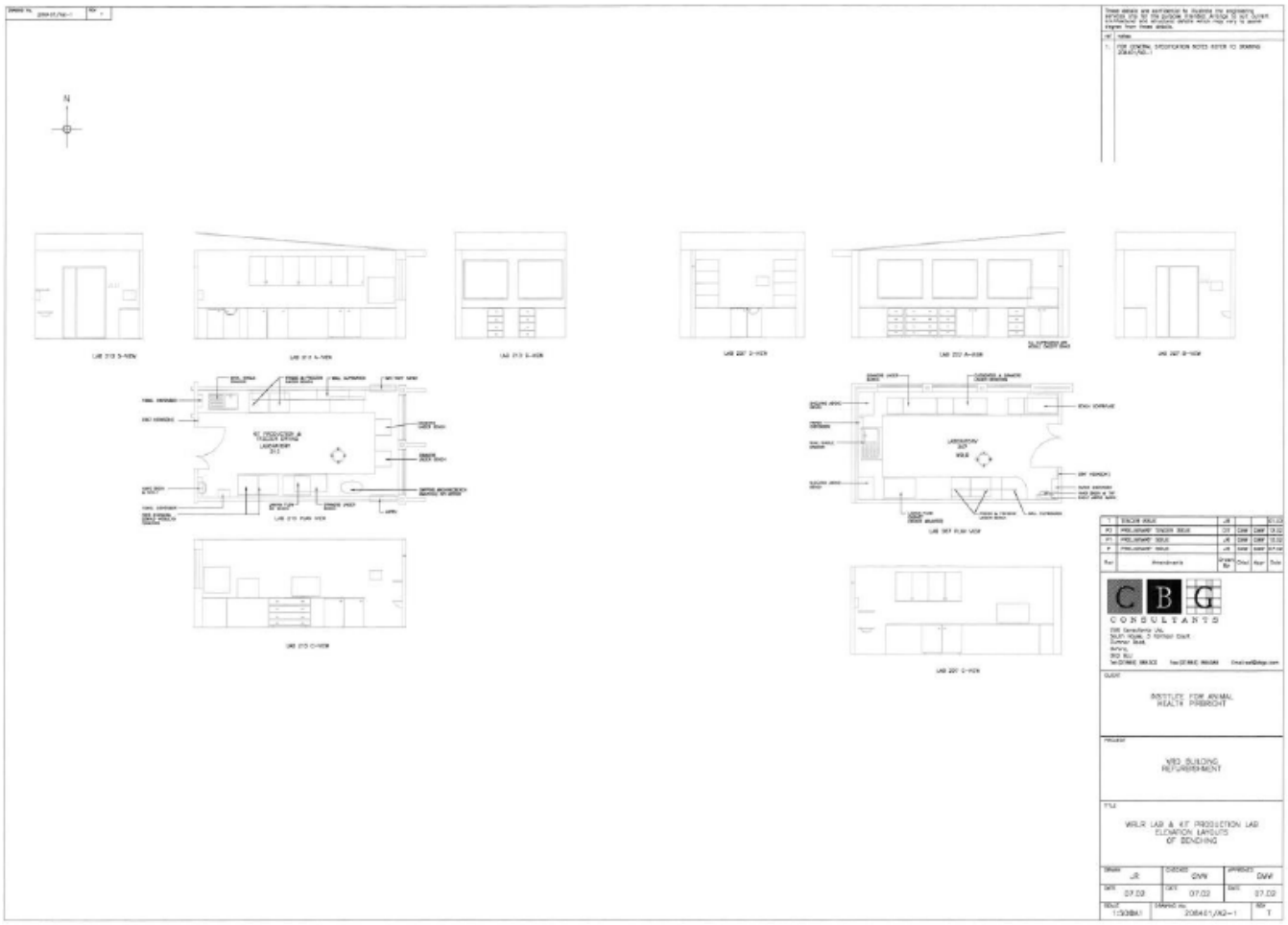
17 Tipping Buckets Site

18 VRD & Annex

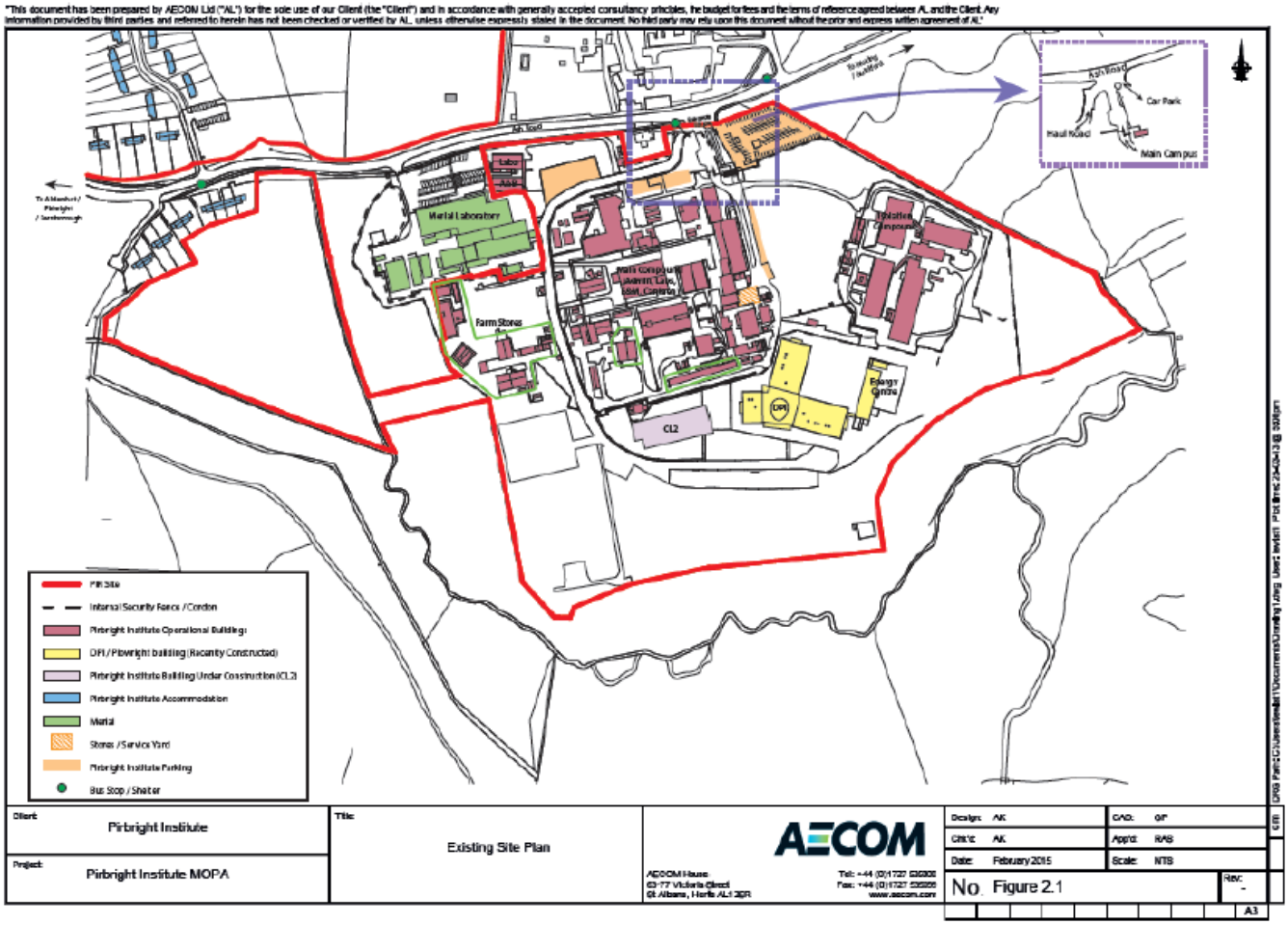
19 VRD Building - Layout



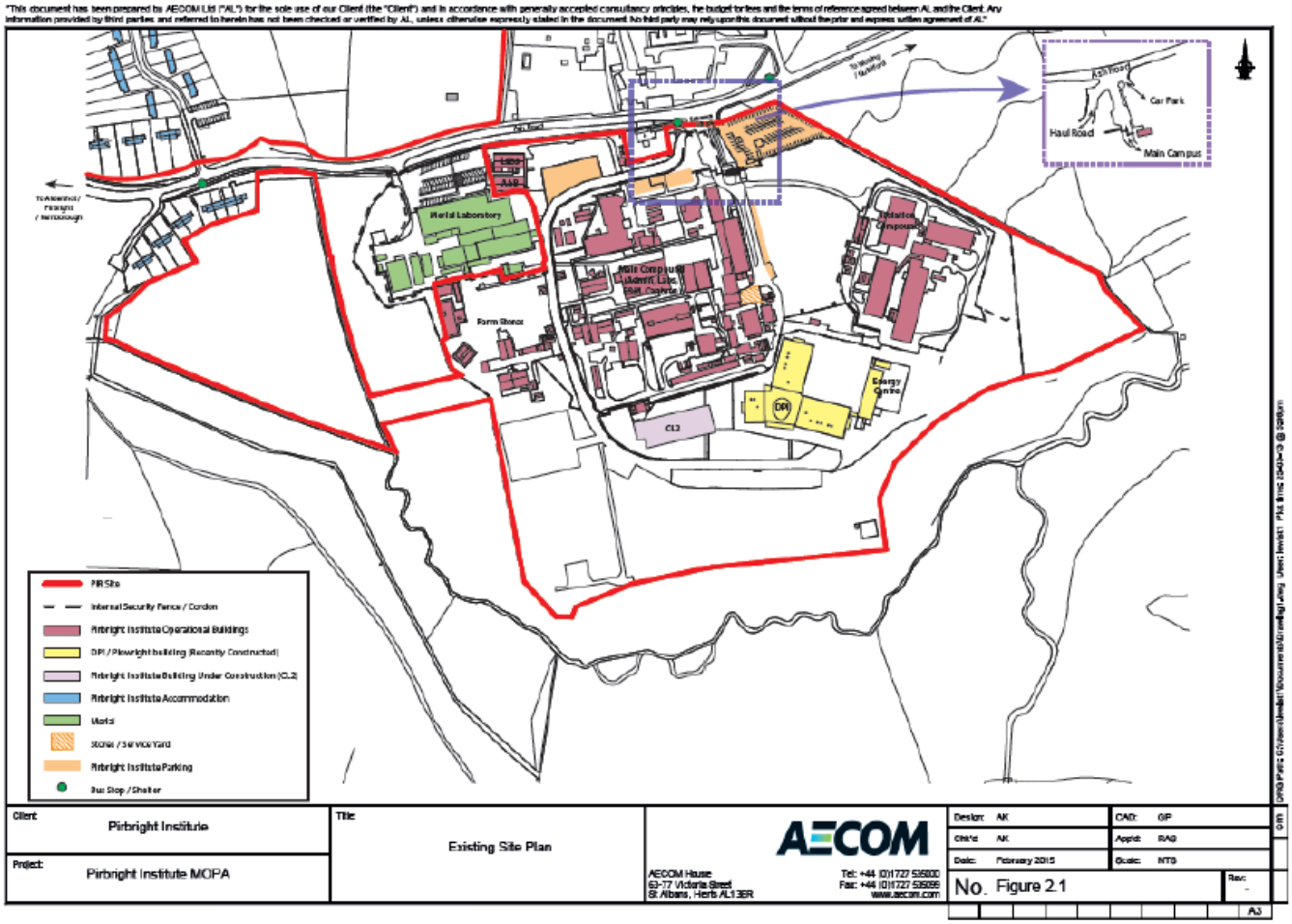
20 VRD Building Refurb - WRLR Lab & Kit Production Lab Elevation Layouts of Benching - Dwg No.208401



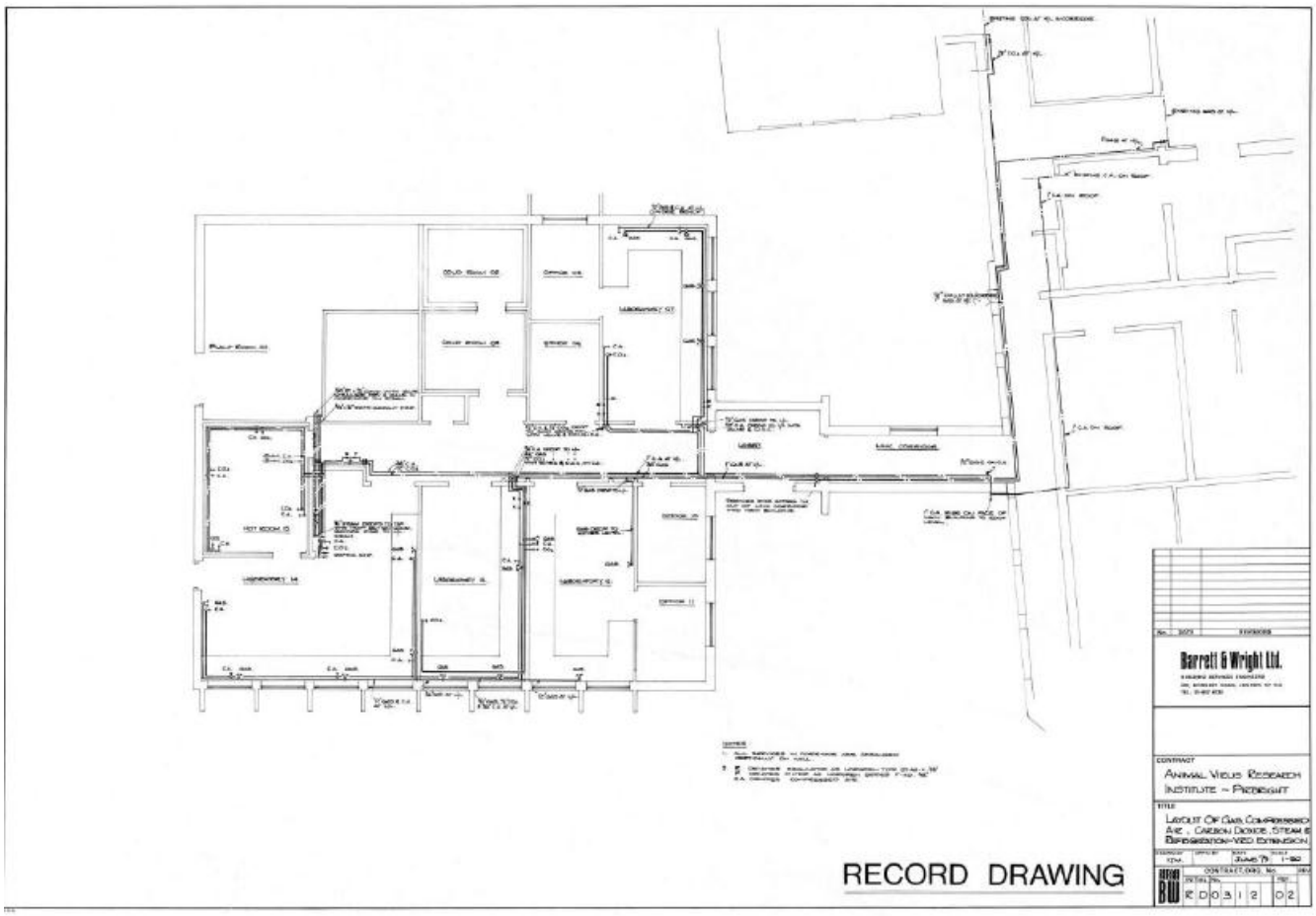
21 Amended Figure-2-1-Existing-Site-Plan-Revised-Feb-2015



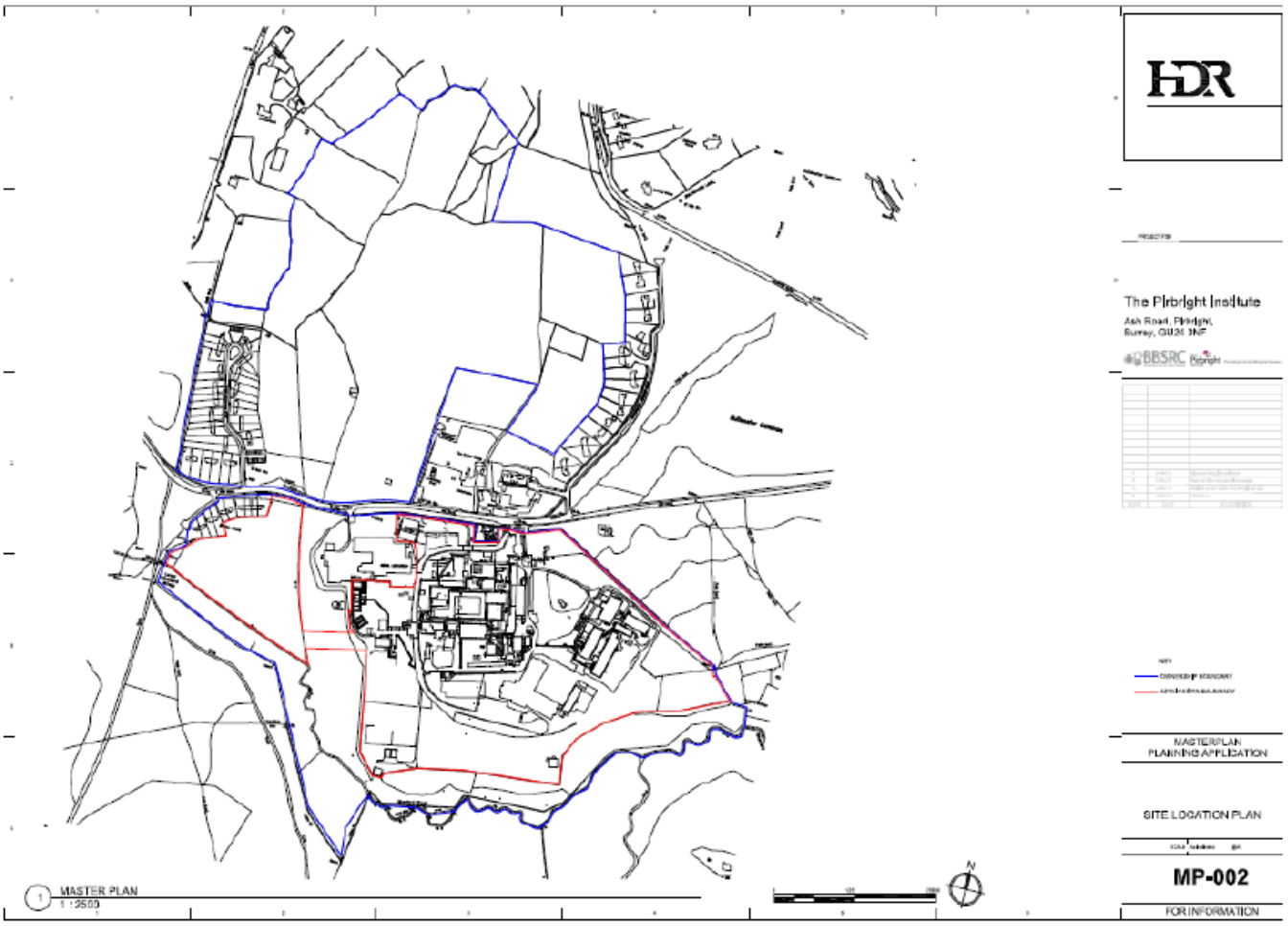
22 Figure-2-1-Existing-Site-Plan-Revised-Feb-2015



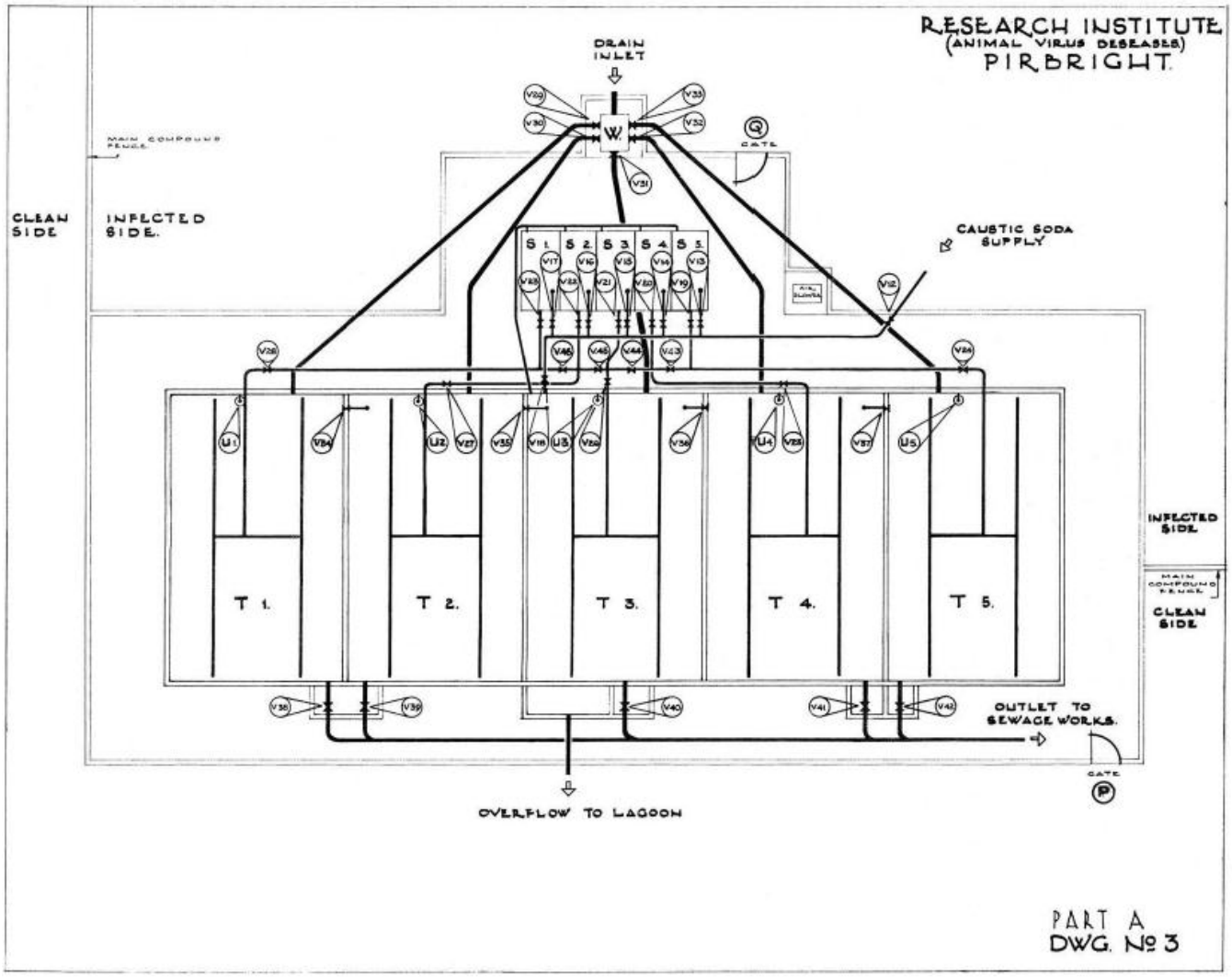
23 Layout of Gas Compressed Air-Carbon Dioxide-Steam & Refrigeration - Dwg No.RD0312-02



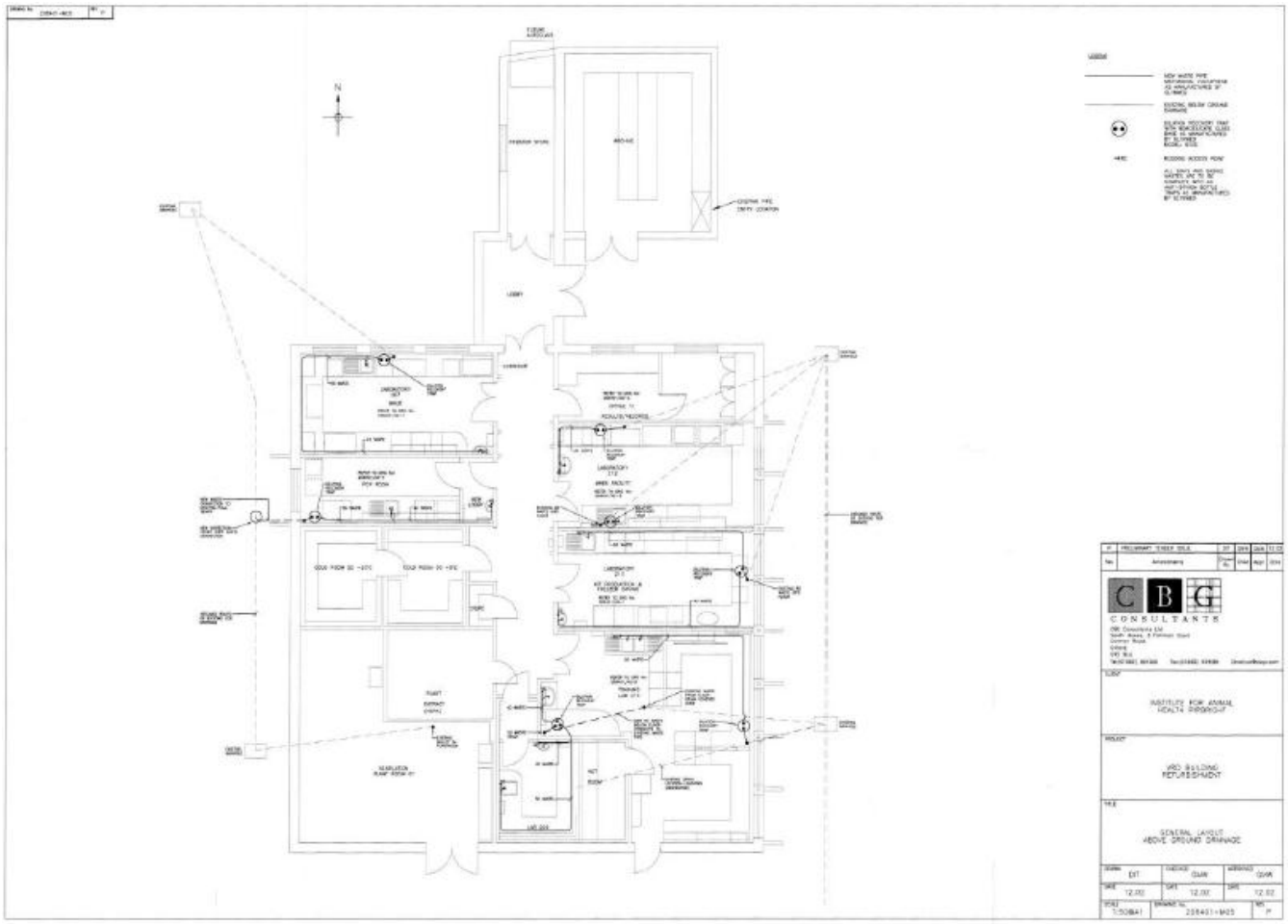
24 MP-002_C - Site location plan



25 Surface Water Treatment Tanks - Part A - Dwg No.3

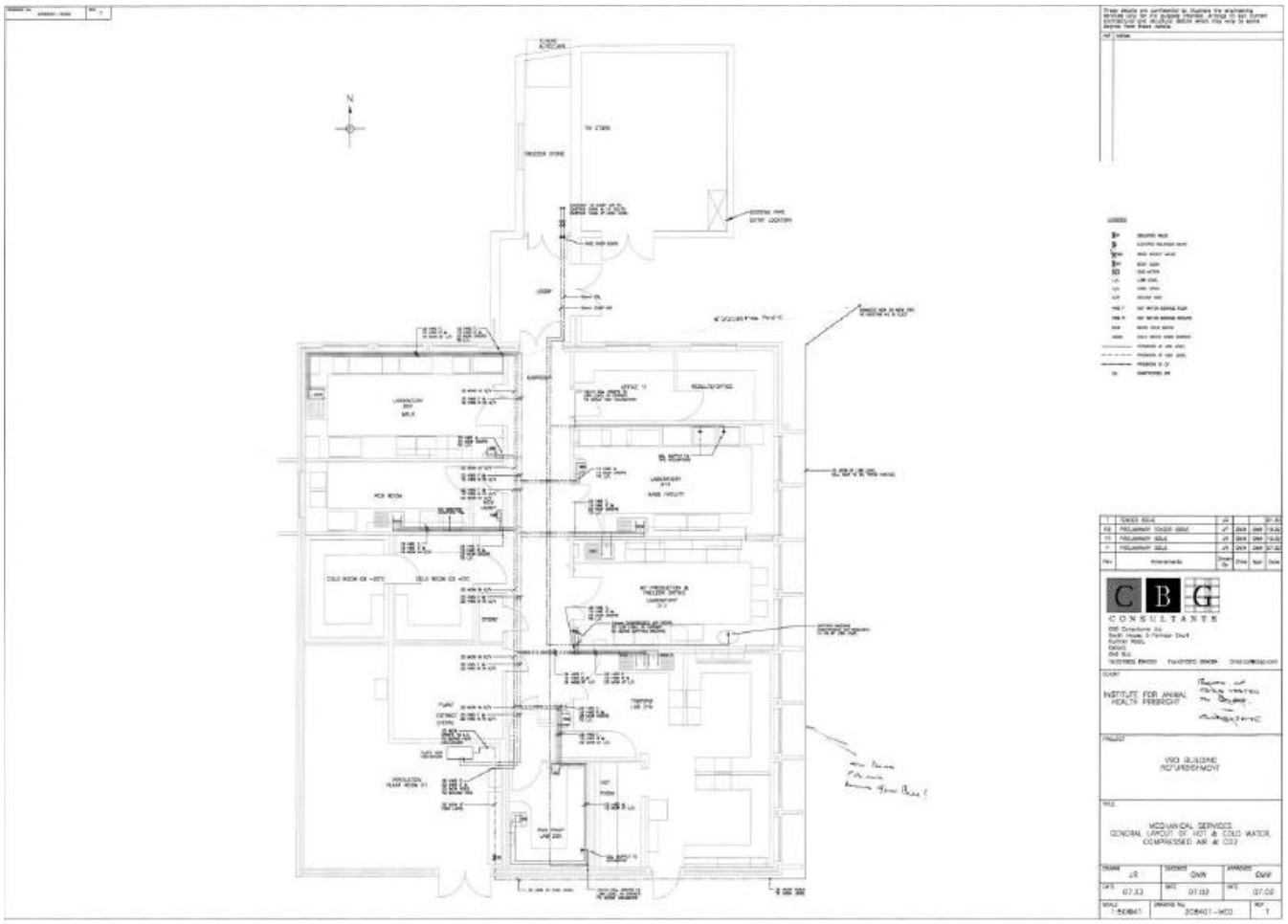


26 VRD Building Refurb - General Layout Above Ground Drainage - Dwg No.208401-M05

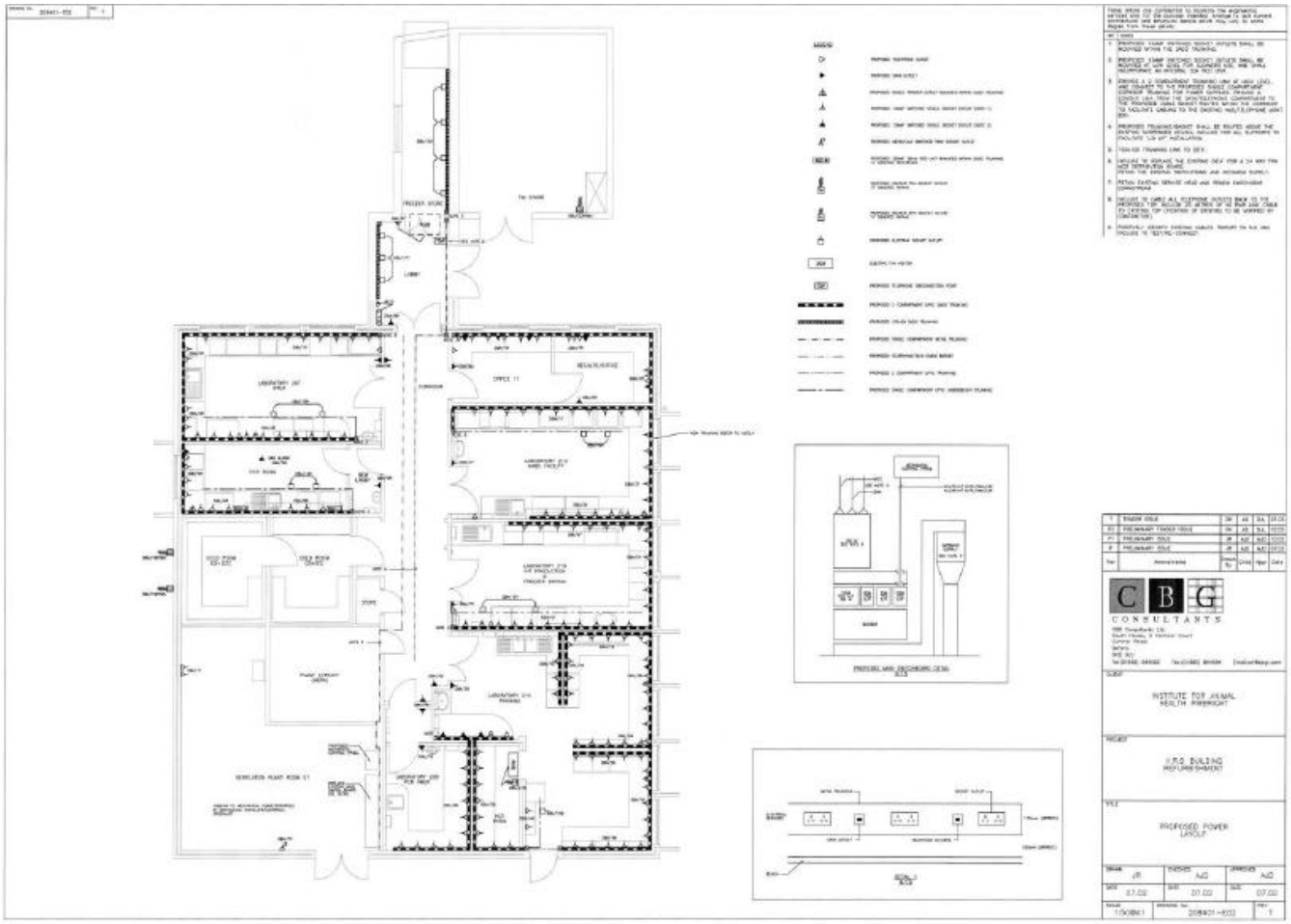


27 VRD Building Refurb - General Layout Outline & Benching - Dwg No. 208401-A0-1

28 VRD Building Refurb - Mech Services General Layout of Hot & Cold Water & Compressed Air & CO2 - Dwg No. 208401-M02



29 VRD Building Refurb - Proposed Power Layout - Dwg No.208401 - E02



30 VRD Building Refurb - Schematics of Hot & Cold Water - Dwg No.208401-M03