Invitation to Tender

Extension of burial area

Fleet Cemetery
Richard Close, leading to Cemetery Road
Fleet GU51 5YZ

Tender deadline: 12 noon on Tuesday 4 January 2022

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Contents

1.0 Introduction

Fleet Cemetery located at the end of Cemetery Road off Richard Close as shown on Figure 1 is running out of available burial space.

The site location is shown on Drawing No1 and the proposed new extension area on Drawing No2.

Fleet Cemetery opened for burials in 1928, but in November 2004 Cemetery Development Services (CDS) undertook a Tier 1 Feasibility Study into a cemetery extension. Monitoring of the water table continued until March 2006. The report stated that given the high water table, close proximity to a minor aquifer and soil type meant that burial at the lower points of the site would not be feasible without major works.

The Environment Agency agreed that an 8m wide soil bench could be constructed to the higher level of the cemetery to provide an additional 150 burial plots. The work carried out in 2009 was predicted to give the cemetery a further 10 years capacity.

The lower western area of the cemetery unsuitable for burials was transformed into a Garden of Remembrance to accept the internment of ashes in 2018

The cemetery is again running out of burial plots and the only remaining space on the site is an area of ground to the north of the existing platform developed in 2009

The earlier studies of the hydrogeology and surface morphology concluded that in wet periods the water table can rise relatively close (1.0 meters) to the surface at the lower end of the slope to the west of the site.

By constructing a new burial area at the same level as the 2009 extension would mean that burials 2.5 meters deep (triple) would have at least 2 meters of soil between the base of a grave and the water table.

It is proposed to create a bench running from the path to the west and north of the existing site as described in the following details.

It is important that the contractor understands the scope and the material that is to be moved and formed. The following section describes in detail the soil material of the site and the scope of works expected.

The contractor will be able to inspect the site pre tender but shall base their Tender Price on the information provided. A method statement will be required as detailed in the Tender Process from which the contractor will provide his approach and understanding to the engineering principles of slope construction.

2.0 Background Site Investigation

A series of site investigations have been undertaken historically including soil and water surveys, topographic and arboricultural surveys.

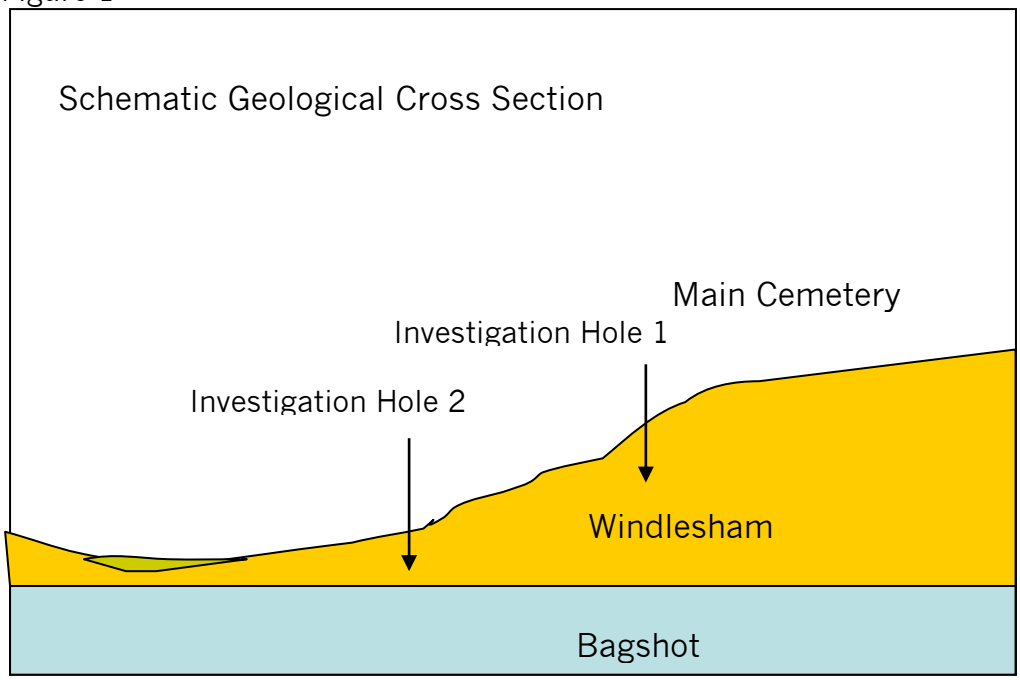
2.1 Topographic Data

The topographic data was mapped using a Robotic Total Station surveying instrument. The contoured plans have been developed from the primary survey and present contours at 0.25m intervals.

2.1.1 The site topography, hydraulics and hydrology

The soil in this area is underlain by the Eocene Windlesham Formation of approximately 17 to 20 meters in thickness, of which 10 meters lies beneath the site. The formation consists of evenly bedded siltstones, clays and poorly consolidated sandstones, which weather to a bright golden colour. (Figure 1)

Figure 1



The lower part of the formation is dark green, glauconitic, fine grained, silty sandy clay.

Thinly bedded and laminated sandy clays of varying thickness separate the lower glauconitic sand, from a higher thicker unit of sandy clay. The upper part of the formation consists of pale grey glauconitic sand with scattered flint pebbles.

2.1.2 Soil Studies

In total 6 soil test holes were bored to a depth of 2.5 meters (8 feet). Two test hole positions are indicated in Figure 1 above. Samples were taken from these investigation holes and analysed (see Table 1). The most relevant information is provided by investigation hole No1

Figure 2: Inspection Hole 1 illustrates the dark alluvial soil found at the surface extending down 300 mm to the golden sands of the weathered Windlesham Formation.

The soil texture would be classified as sand throughout the depth range, however, the sand type changed markedly throughout the profile and at the base of the slope “running sand” was found. The current works are located on the crest of a ridge and should not be significantly affected by ground water,

Table 1 (Soil Analysis)

Investigation Hole 1 Top Soil	**Sample 1**	**Sample 2**	**Mean**
% COARSE SAND	0.19%	0.13%	0.16%
%SAND	19.20%	20.13%	19.66%
%FINE SAND	75.16%	74.76%	74.96%
%TOTAL SAND	94.54%	95.02%	94.78%
%SILT	4.52%	4.57%	4.55%
% CLAY	0.93%	0.41%	0.67%
Textural Class:			**SAND**
Investigation Hole 1 Sub Soil	**Sample 1**	**Sample 2**	**Mean**
% COARSE SAND	0.02%	0.03%	0.02%
%SAND	16.97%	30.45%	23.71%
%FINE SAND	71.59%	58.41%	65.00%
%TOTAL SAND	88.58%	88.88%	88.73%
%SILT	3.61%	3.13%	3.37%
% CLAY	7.82%	7.99%	7.90%
Textural Class:			**LOAMY SAND**

With the information provided contractors should be aware of the nature of material and formation of the site within the proposed. Contract area

3.0 Scope of work and Specifications

The extent of the proposed scheme is illustrated on the attached drawing (Drawing 3A and 3B)

3.1 Scope of Work

The main focus of the contract is to establish a bench on a ridge on the west side of the cemetery site as marked as Area 1 on the plan using imported fill material. The imported fill material should not exceed 200 m^3 in total.

The second element of work is the restoration of existing Toilet Block and Store to improve the appearance of the structure and make it fully weatherproof.

3.1.1 Access to Site

The Contractor will gain access to the site via the main entrance gate at the end of Cemetery Road. All access routes through the graveyard will be reinstated to their original condition at or before Practical Completion is achieved. All access routes will be kept in a safe condition during use.

Articulated vehicles cannot enter the cemetery so track boards will be required for metal tracked vehicles from the main gate to the construction areas.

The primary access is via the main entrance on Cemetery Road, but an alternative access is possible via rear the entrance off Richard Close.

3.1.2 Working Hours

No work shall be permitted on a Saturday, Sunday or Bank Holiday without prior consent from the Cemetery Clerk.
Weekday work will commence no earlier than 8:00am and will not continue beyond 6.00pm
The Cemetery Clerk will inform contractors, in advance, when a funeral is to take place and work must stop for the duration of the burial.

3.1,3 Labour, Materials, Plant etc.

The Contractor shall provide suitably skilled and qualified labour, appropriate materials, fuel, water, consumable, plant, tools and machinery of all descriptions in order to execute the works.

3.1.4 Safety, Health and Welfare

The Contractor shall at all times comply with the requirements of the Health and Safety at Work Act 1974 and all associated Acts, Regulations and Approved Codes of Practice, including the Construction (Design and Management) Regulations 2015. The successful Contractor must supply to the Council their own specific policy statement prior to the commencement of the Contract as part of the Method Statement.

3.1.5 Control of Substances Hazardous to Health Regulations 1998

Assessments carried out by the Contractor of all work which is liable to expose their employees and any other person in the vicinity of the site to hazardous solids, liquids, dust, fumes, vapours, gases, etc. shall be made available to the Cemetery Clerk ten working days prior to the commencement of works.

3.1.6 Risk Assessments

The Contractor will ensure that Risk Assessments are carried out for all activities undertaken during the course of the works, and for the use, storage and disposal of any hazardous materials highlighted in the CoSHH Assessments.

3.1.7 Risk of Works

The Contractor will be held responsible for any damage whatsoever caused by the carriage of materials or spoil to and from the works and is to hold the employer indemnified from any claims in this connection.

3.1.8 Damage to Buildings/Roads etc.

The Contractor will be held responsible for and must make good any damage caused to existing buildings, roads, paths, grassed areas, car parks, fences, drains, sewers, service mains, landscaping etc. The Contractor must take all necessary steps to prevent roads becoming fouled with soil etc. from vehicles entering and leaving the site and allow for cleaning if the roads/paths do become soiled, on immediate exit of the said vehicles.

3.1.9 Existing Services Across Site

It shall be the responsibility of the Contractor to make enquiries of the utility companies in respect of any location where, in the opinion of the Contractor, underground plant or services are likely to be present. The Contractor shall similarly be responsible to make specific arrangements with the utility companies, if it is deemed necessary, for a representative to accurately locate services on site. If any underground cable or pipe is located during ground works, that particular item of work is to be stopped immediately and the Cemetery Clerk advised as soon as possible. If any damage has occurred to the services, the appropriate utility company will be informed immediately by the Contractor, who will then follow instructions as given by the utility company. If damage has not occurred, the exposed apparatus shall be appropriately protected until further instructions are received from the Cemetery Clerk. Exposed services, whether damaged or not, shall at no time be left unattended without first erecting such protection as will ensure the safety of both the apparatus, operatives and general public.

3.1.10 Water and Power

The Contractor will have access to water by way of use of the toilet block (Area 2) or the Central Shelter. The Contractor shall ensure water is turned off when not in use. There is no electrical power within the cemetery.

3.1.11 Protection of Site

The Contractor must ensure that all reasonable efforts are made to close off the site during the course of the works. The Contractor shall provide, install and maintain adequate fencing, Heras or equivalent, either around individual areas or to surround the whole site. At no time will the public have access to construction areas, storage areas, site vehicles, delivery areas etc. Warning signs will be supplied and maintained by the Contractor. These will be fixed to the Heras fencing at all access points. Any machinery left on site overnight must, where possible, be immobilised. The Contractor will be held responsible for:

Any damage caused to machinery/materials left on site by the Contractor

Any damage caused by machinery/materials left on site by the Contractor
Any vandalism caused to machinery/materials left on site by the Contractor.

The Contractor will liaise with the local police to update them on progress and deal with any issues with regard to the security of the site and anti-social behaviour during the construction process.

3.1.12 Inclement Weather
The Contractor shall allow for protecting the works against inclement weather and shall include for taking all reasonable precautions to ensure the regular progress of works during adverse weather conditions.

3.1.13 Temporary Storage
The Contractor may provide a temporary secure storage container on site. However, this must be within the allowed contract area or agreed location with the Cemetery Clerk. Any consequential ground damage must be fully reinstated immediately after removal. Any container must be removed from site prior to Practical Completion.

3.1.14 Burning Materials on Site
No materials will be burned on site.

3.1.15 Seeding Establishment
The Contractor will be responsible for establishment of all seeded areas for a period of 3 months after practical completion.

3.1.16 Use of Pesticides
The Contractor will not use any pesticides during the course of these works without the prior written permission of the Cemetery Clerk

3.2.1 Condition of the Site Area 1
The proposed site has been used as a waste tip for general ground maintenance clearance material and surplus soil from graves. There are significant depths of organic material over the upper parts of the site,
An old storage bin constructed from railway sleepers exists in the Southeast corner of the site with a number of sleepers laid on the ground immediately behind the bin.

All organic waste material deposited on Area A shall be disposed of, offsite. All concrete posts, the bin store and all alien material shall be removed off site.

3.2.2 Tree Removal
Within the bench construction area, a number of trees have been identified as having to be removed. An extensive belt of self-seeded holly trees generally less than 100mm diameter at 1.5m above ground level forming the southern boundary of Area A shall be removed. All trees bushes and shrubbery shall be removed in accordance with BS3998 by a suitably qualified tree surgeon or woodsman. All branch, trunk and importantly the root arisings shall be removed off site. Roots shall be excavated or ground out with an appropriate root grinder. A certificate of disposal will be required.

3.2.3 Bench Construction

The area of the bench as marked on the plan shall be prepared by the application of a total herbicide (Glyphosate). The treatment for total herbicide control shall kill all treated growth including their root systems.

The rates of application of herbicide shall be appropriate to the density of vegetation to be controlled and shall not be below the minimum nor above the maximum specified by the manufacturer.

The Contractor shall take precautions against spray or vapour drift on to adjacent private property, or the leaching of chemicals transversely into drainage channels, watercourses or other areas.

Unless otherwise agreed by the Contract Administrator, the Contractor shall not commence any excavation or cultivation of the areas where herbicide has been applied until the vegetation has been effectively controlled.

Once all vegetation has died off and the trees removed all productive topsoil shall be stripped and temporarily stored on site for later re-use.

The bench will be constructed from imported fill of a similar grading to the naturally weathered Windlesham beds with a sand content of at least 80% and clay content not exceeding 10%. The first 100 mm layer shall be keyed into the existing sub-base. The contractor shall supply his method statement for placing and compacting the fill and forming trimmed slopes to the fill perimeter.

Layers shall be compacted every 100 mm by tracking with an excavator or roller providing six passes to 100 mm below finished level. Batter faces should be not less than 1:1 and the bench should be feathered on the south end to tie in with the existing slopes.

3.2.4 Rabbit Protection

To prevent rabbits and foxes etc burrowing into the side slopes galvanised wire rabbit proof mesh shall be used to face the battered sides of the bench after the shape and forming but prior to the re-instatement with topsoil and vegetation. The mesh shall extend from the base of the batter by at least 1 meter and be dug into the ground by at least 200 mm at the ends.

3.2.5 Re-instatement of Bench Area

The surface of the final layer of fill shall be slightly loosened prior to spreading the topsoil saved on site. Topsoil shall be spread to a depth of 100mm after light compaction. Any short fall through re-use of stored material shall be made up by imported topsoil.

Seeding

Once a satisfactory seedbed has been achieved a mix of the following varieties should be used; slender and strong creeping red fescue; hard and sheep's fescue; smooth-stalked meadow grass; crested dogstail; browntop bent, this mix is slower growing and tolerant to infertile and acidic soils; sown at a rate of 35 gms/m^2 and fertilised with 10:15:10 (NPK) at 70g/m^2. The seed shall be certified with germination of not less than 80% purity of 90% and total 0.5% weed seed contaminants.

The seeded area shall be watered for at least three weeks post sowing if planted in late spring. Any obvious areas of limited growth/cover shall be reseeded.

3.2.6 Tree Planting

To compensate for the trees removed as part of the site clearance **6** new trees (ie 3 trees from each of 2 varieties) shall be planted in the areas as directed. The 2 tree varieties to be chosen from the list below:

Tree Type	**Size ht m**
Acer campestre	2m standard
Carpinus Betulus 'Fastigiata'	2m standard
Sorbus vilmorimii	2m standard
Sorbus cashmiriana	2m standard
Cut-leaved Birch tree	2m standard
Sorbus aucuparia	2m standard
Prunus Serrulata shirofugen	2m standard
Prunus Kanzan	2m standard

Trees shall be planted in accordance with BS 4043, BS 4428 and BS 5837. Code of Practice for General Landscape Operations.

3.2.6.1 Planting Stock

All plant materials should comply with the minimum requirements of BS 3936: Parts 1 (Specifications for Trees and Shrubs) and BS 4043 (Recommendations for transplanting semi-mature trees).

Trees should be supplied packaged in accordance with the recommendations of BS 3936 (Nursery stock). Under no circumstances should roots be allowed to dry out. The roots shall remain covered and moist at all times throughout planting operations.

3.2.6.2 Site Preparation

The sub-soil and top-soil should have good physical structure, be friable, retentive of moisture, and well drained. On sites where this is lacking, or the ground is heavily compacted, cultivation over the whole area should be undertaken. A 1m minimum diameter weed free spot should be provided around the tree planting area.

3.2.6.3 Tree Pits

Excavations for tree pits should be at least twice the diameter of the root spread, and 1.5 times the depth of the roots of the stock to be planted. The bottom and sides of the hole should be forked to break up the sub-soil. Excavated sub-soil should be removed from the site and should be replaced with top-soil, planting compost or other suitable growing medium.

3.2.6.4 Staking
Newly planted trees over 1m high should be held secure at the base until a new anchorage develops. A period of two years should be adequate. Vertical stakes should be driven before planting and should penetrate at least 0.6m below the base of the planting pit and should extend above ground level to a maximum of one third the total tree height. The stakes should be free from bark, snags, pests and diseases and should be of sufficient size (50mm to 75mm top diameter) to withstand the weight of the tree crown when subjected to the normal prevailing wind of the planting site.

3.2.6..5 Planting
It is most important to plant trees at the original root collar soil depth. The soil mark on the stem is an indication of this and it should be maintained on the finished level, allowing for settling of the soil after planting.

Compost in containers should be moist before planting and before containers are removed. Any broken or damaged roots should be cut back to sound growth; heavily coiled roots on container grown plants should be eased from the root ball or cut. Bare roots should be spread evenly in the planting pit.

During back filling around the tree the soil should be lightly firmed to ensure close contact with the roots. Firming should be such as to ensure that the roots will be held secure in the soil and that penetration of moisture will not be restricted.

3.2.6.7 Tying
Each tree should be secured to the stake so as to prevent excessive movement. The tree should be secured at the top of the stake. Ties should be checked after severe gales and at least twice a year and should be adjusted or replaced to allow for growth. They should be removed as soon as anchorage has been achieved

3.2.6.8 Replacements
Should the trees fail or die within 1 year of planting due to poor stock, incorrect planting or not ensuring adequate watering during first months of setting in the contractor shall be deemed liable for replacement trees.

3.2.7 Hedging
On completion of the fill placement a screen of native evergreen hedging shall be planted along the western edge of the fill platform to screen cemetery operations from the houses immediately adjacent to the site. The hedging shall be of mature stock, at least 1.8m tall to provide an instant screen to the neighbouring residential properties. Ground preparation, planting and maintenance shall be in accordance with tree planting is Section 3.2 above. Contractor to supply details of the hedging, for approval, prior to planting.

3.3.1 Site Area 2
Area 2 is represented by the existing brick-built toilet block immediately adjacent to Area 1. The brick-built structure although substantial has fallen into disrepair. Windows and doors need replacing with suitable exterior quality fittings. Door and window locks should be of a good security quality to prevent any unauthorised access.

The roof of the building appears to be of concrete construction and needs waterproofing to prevent the ingress of rainwater into the building. Whatever water

proofing process is offered should be provided with a 10-year guarantee of water tightness.

The immediate area around the building needs clearing to prevent damp by-passing the damp proof course.

The watering can filling points needs modification to prevent splash back from the tap allowing deterioration of the brickwork.

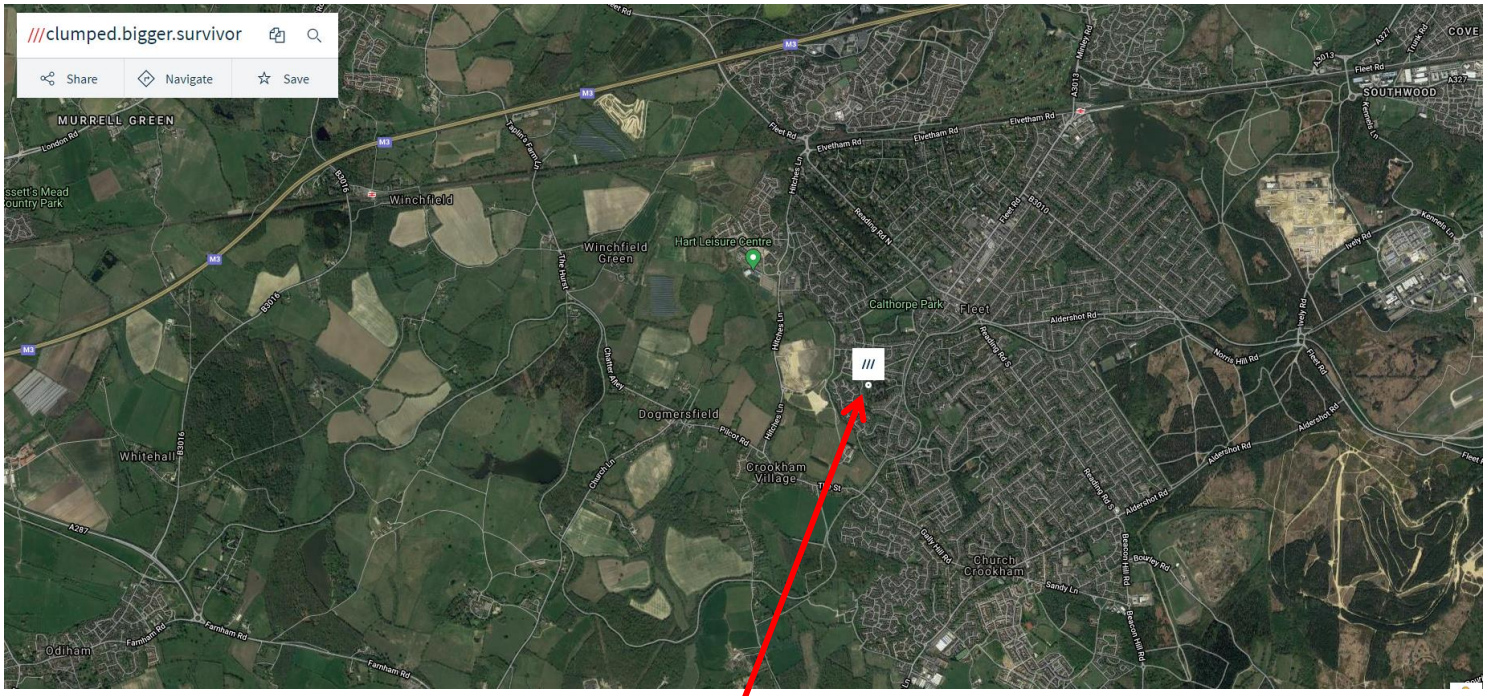
The exterior of the building to be waterproof, aesthetically pleasing and complement the local environment. Appropriate cladding or treatment of the brickwork may be proposed, A full technical specification shall be provided with the tender including the guarantee period for the efficacy of any proposed product. Visual appeal is a key factor in addition to the sustainability of the proposal.

4.0 Indicative Bill of Quantities

Activity	Unit	Number of Units	£/Unit	Cost
Mobilisation and provision of site welfare facilities compound and health and safety activities..	SUM			
Felling and removal of trees greater than 150mm dia at 1.5m above ground level including the roots as per scope of works including removal off site	No	6		
Erection of protection fencing around trees remaining in work area	No	2		
Felling and removal of all self seeded holly trees along the southern boundary of the site including the root mass	Lin. m	17		
Clear and remove off site all organic including self seeded saplings, shrubbery and undergrowth all inorganic material including ground maintenance debris, loose spoil, concrete and railway sleeper bunker	SUM			
Spaying of vegetation in bench area	m^2	420		

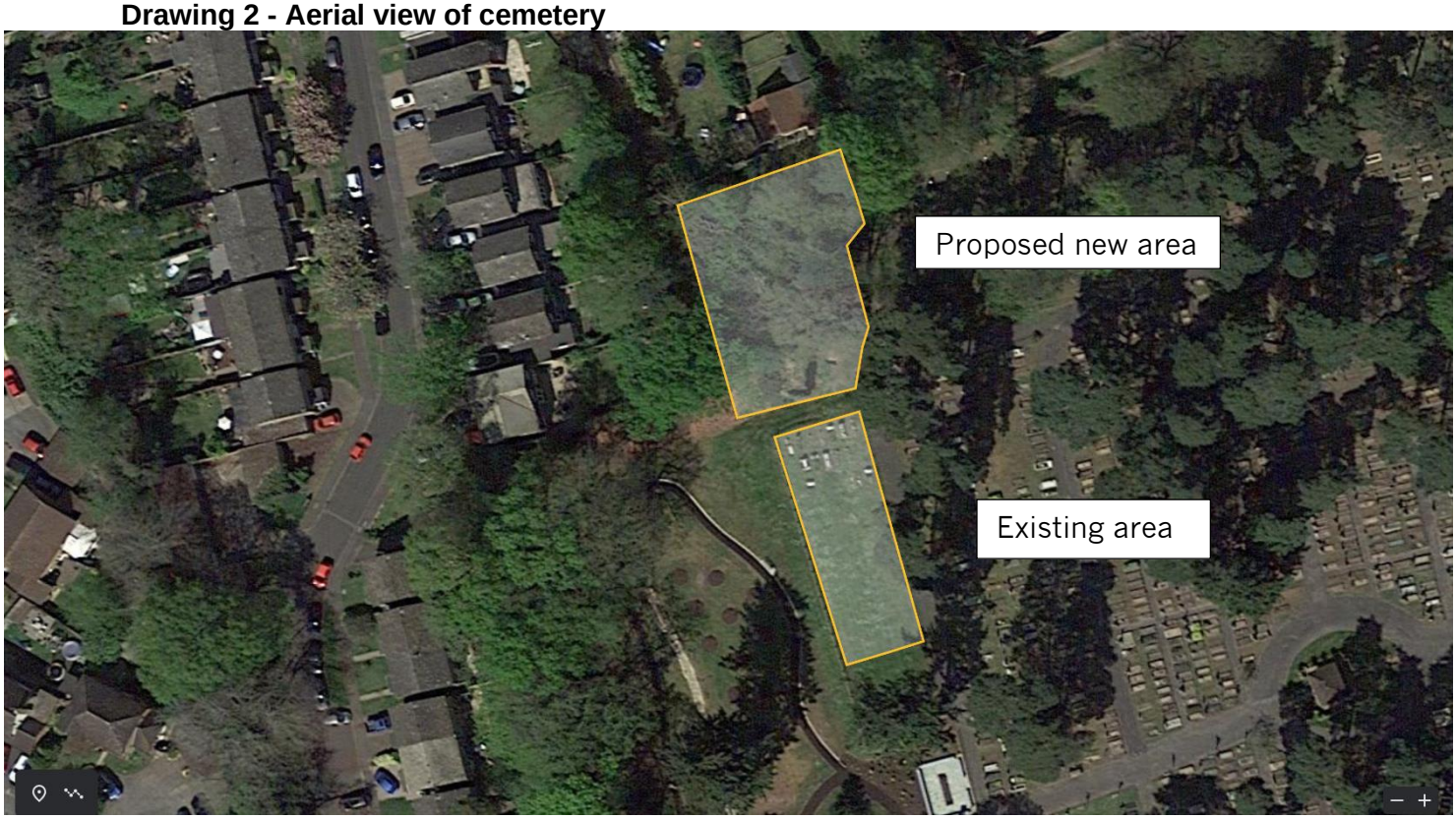
Strip topsoil and store for reuse	m^2	310		
Imported fill material placed and compacted to specification	m^3	150		
Trim and grade slopes to fill area	m^2	152		
Grade trim to levels and seed with grass	m^2	446		
Place rabbit proof wire on batter slopes prior to top soil replacement	m^2	152		
Supply and plant 1.8m high native hedging to western edge of bench	Linear m	17		
Supply and plant compensation trees as specified	No	6		
Allow for 3 weeks of watering	SUM			
Allow for second over seeding of all seeded areas	SUM			
Refurbishment of Toilet Block including new doors and windows with security locks. Waterproofing to roof and aesthetic treatment to elevations.	SUM			
Reinstate all surfaces used for construction works including access(es) to original condition on completion	SUM			
Total				

DRAWING 1 - Location Map

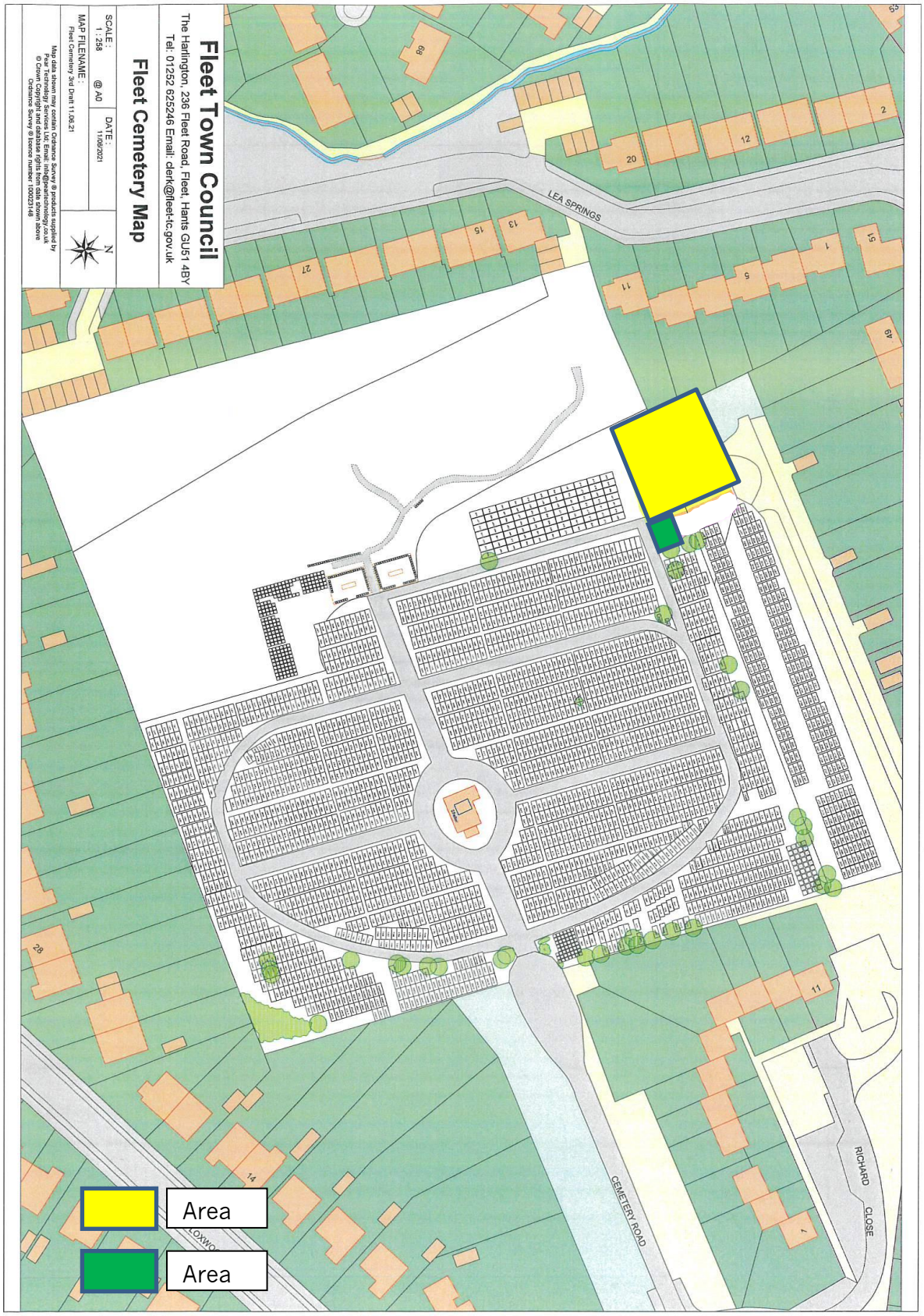


Fleet Cemetery Location.
Cemetery Road, GU515YZ
WHAT THREE WORDS – Project location
https://w3w.co/clumped.bigger.survivor

Drawing 2 - Aerial view of cemetery



Drawing 3a - Area Plan



Drawing 3b – Area Plan – not to scale