



Google Earth

Gower Tip, Tividale



Non Technical Summary

14 September 2021

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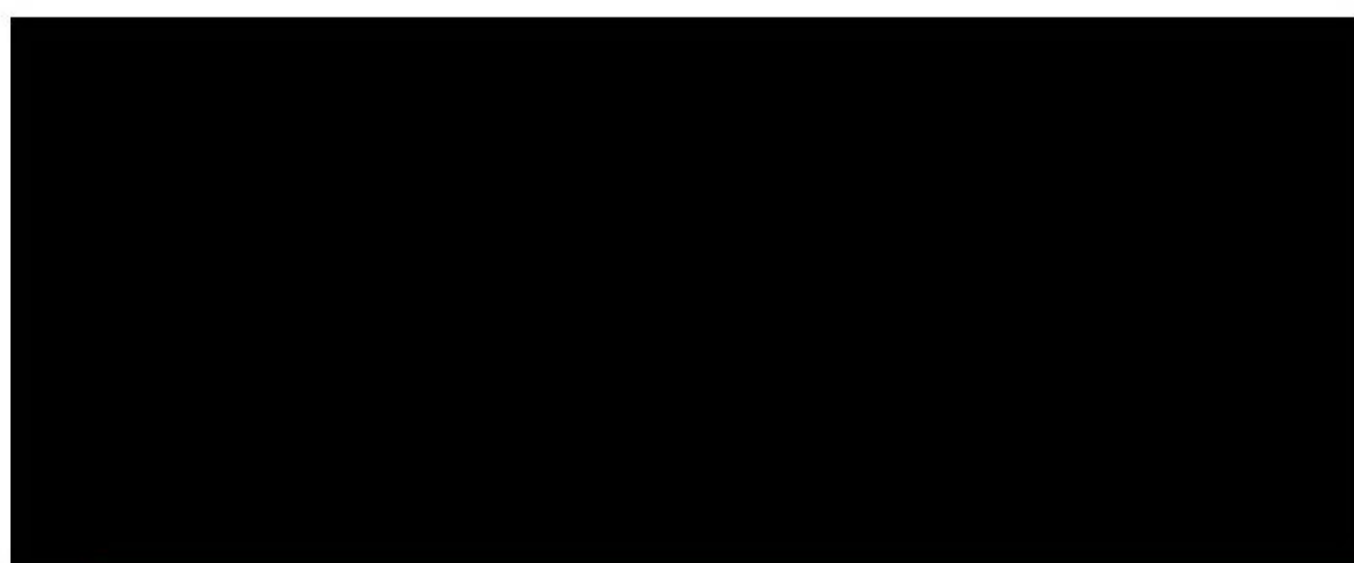
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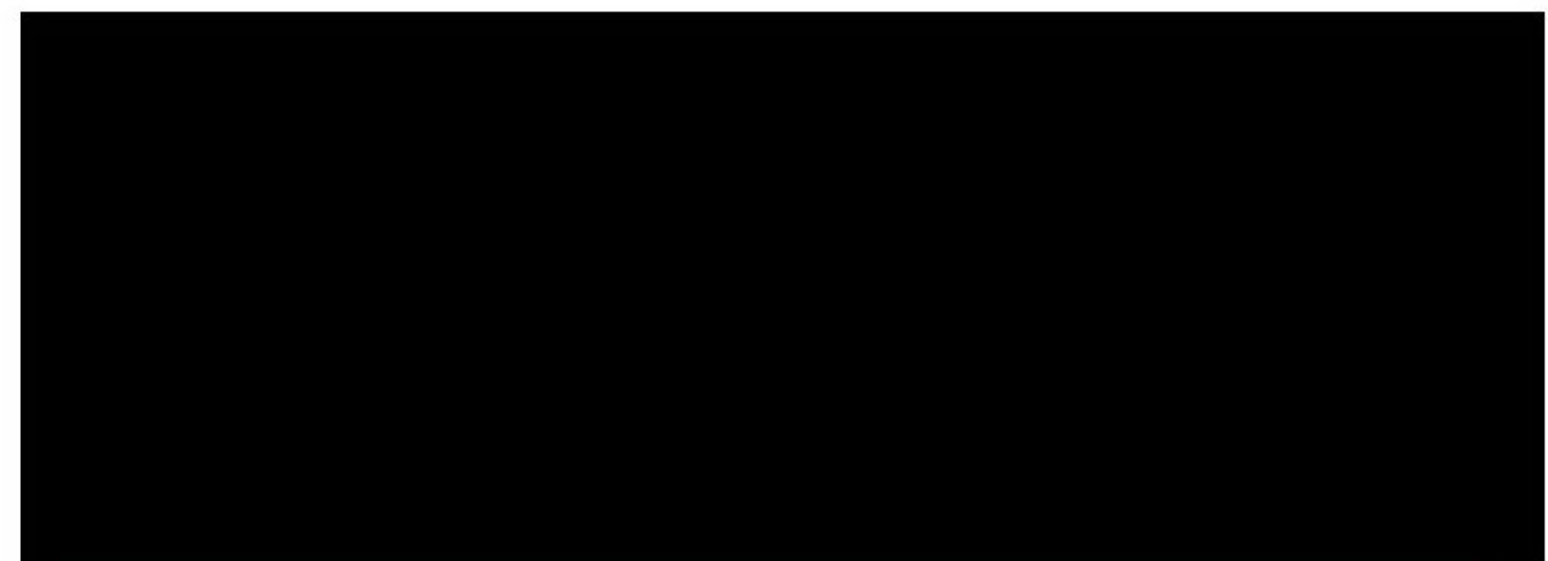
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Gower Tip, Tividale

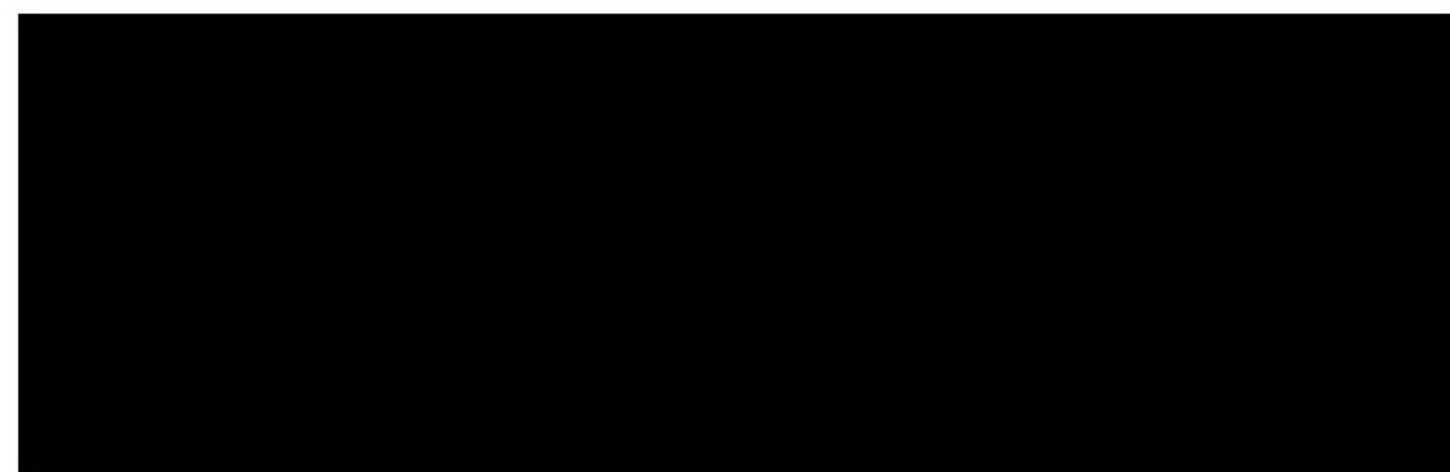
Non Technical Summary



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Acronyms and Abbreviations

Name	Description
AQS	Air Quality Standard
HGV	Heavy Goods Vehicle
PM10	Inhalable particulate matter
VOCs	Volatile Organic Compounds

1. NON TECHNICAL SUMMARY

1.1 Background

The Gower site (herein referred to as the 'site') covers an area of approximately 3 hectares and is a former clay pit that was infilled with waste materials between circa 1938 and 1986, before surrender of the waste management license in 1995 and is currently fully covered with low lying vegetation. It is located to the west of Lower City Road and north of the Birmingham Canal in Tividale, Oldbury and is situated within a mixed residential and industrial area. The site is not open to the public and can only be accessed by staff and contractors through two sets of locked gates via a narrow track located off Lower City Road, or via a neighbouring industrial site (operated by Lift & Skate). See Figure 1 for a site location plan.

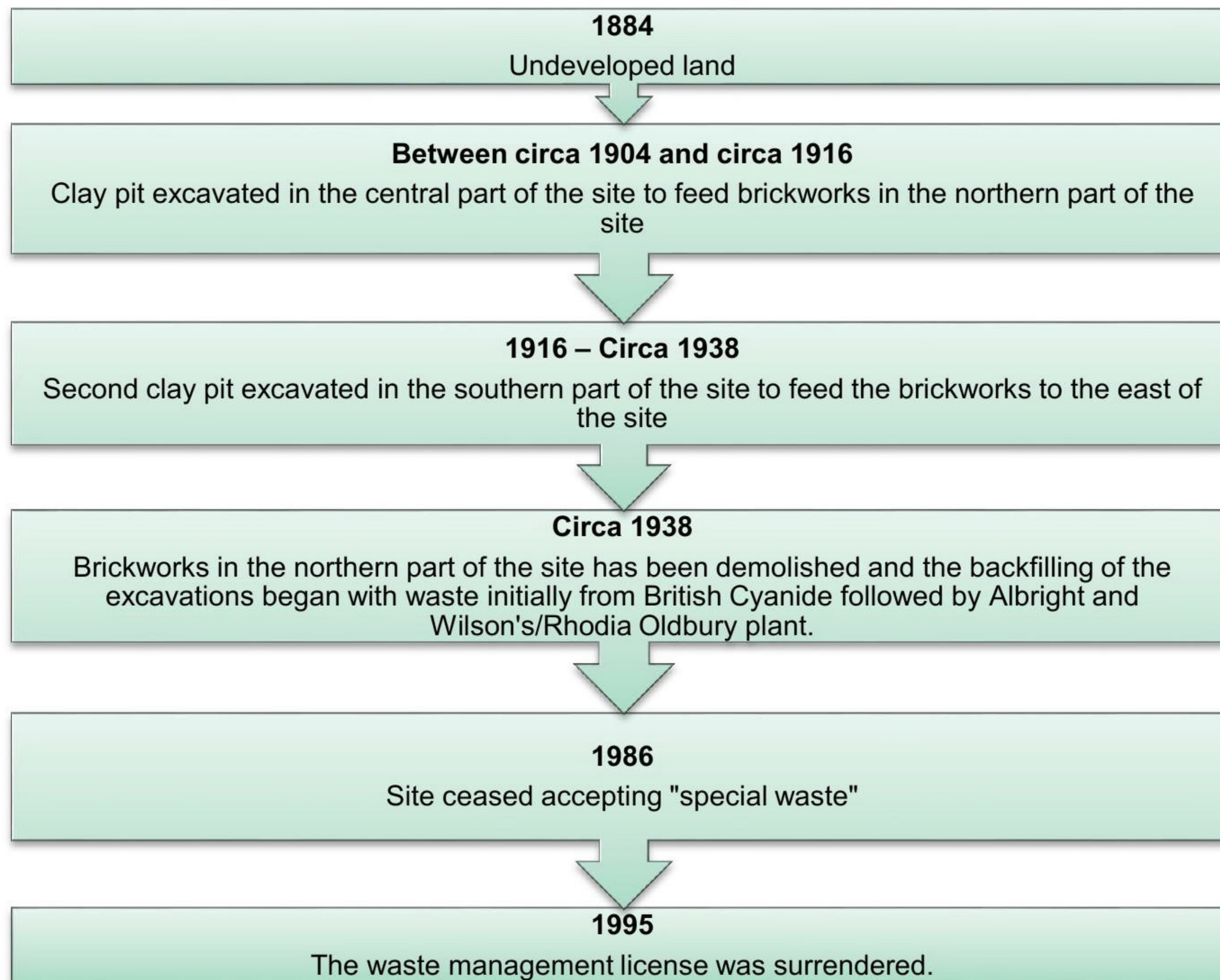
Figure 1 Site Location Plan



Solvay is seeking planning permission to carry out remediation works at the site to help ensure the long term environmental sustainability of the site and once remediation of the site is completed the site will remain fenced off with no access to unauthorised personnel.

1.2 Site History

The following is a timeline showing the land uses associated with the site from 1884.



1.3 Proposed Works

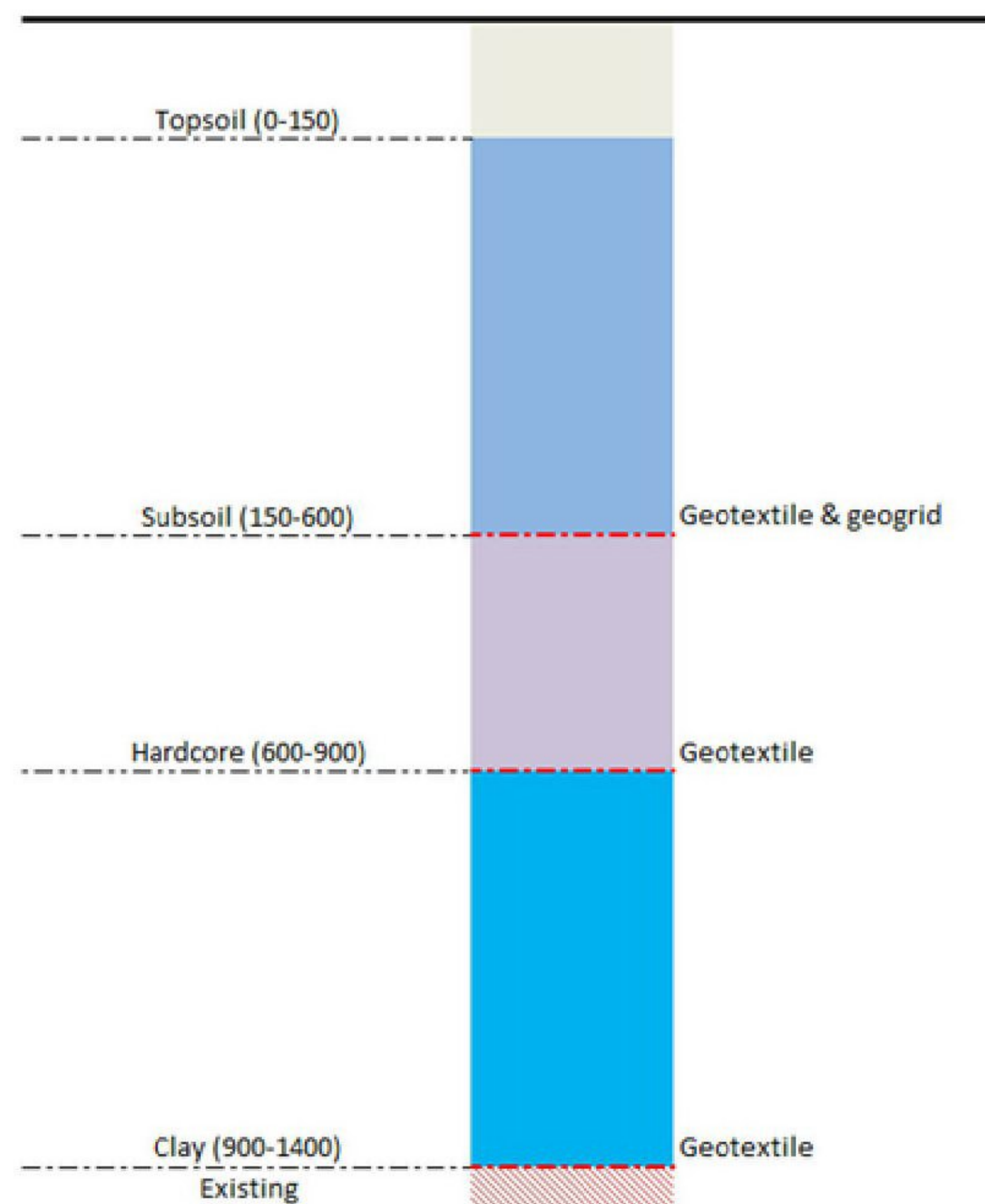
The proposed remedial works are likely to comprise the following:

- Remodelling the site surface to facilitate better drainage and install a perimeter track for maintenance purposes;
- Installation of a cap at the surface of the site;
- Installation of a groundwater barrier along the eastern part of the site; and
- Re-vegetation of the site following capping works.

The site will be re-profiled before a cap is installed above the underlying waste materials. Significant excavations into the existing surface will be minimised to reduce the disturbance of the underlying waste materials.

The proposed cap comprises several layers of different materials (see Figure 2 below), including; clay, hardcore, subsoil, topsoil and geotextile membranes, and has been designed to form a low permeability barrier over the underlying waste materials and to help prevent plant roots and local wildlife from disturbing the underlying waste materials in order to maintain the long-term integrity of the cap. Once installed, the cap will lead to a site uplift in the order of 1.4m.

Figure 2 Proposed Cap Profile



Due to the placement of a low permeability cap across the site, a surface water drainage system will also be installed as part of the proposed remedial works. The drainage strategy will include surface detention and attenuation ponds and French drains around the perimeter of the site. The system has been designed to capture and attenuate the additional runoff generated from the surface of the new low permeability cap.

The proposed remedial works also includes a sub surface cut off wall to create an impermeable barrier along the eastern site boundary. It is anticipated that the barrier will be anchored into the underlying bedrock to form an effective in-ground groundwater barrier.

On completion of the capping, the site will be revegetated with low maintenance native species. Figure 3 below presents the indicative landscape design.

- The implementation of a wheel washing system for vehicles before they leave site;
- Use of water spray / misting equipment during prolonged dry periods to maintain surface moisture for effective dust/particulate suppression

Dust monitoring will be undertaken during the duration of the works and additional mitigation measures implemented as required.

1.4.2 Air Quality – Odours & Volatile Organic Compounds (VOCs)¹

Baseline monitoring did not identify any recognizable odours or VOC's greater than the laboratory limit of detection from the site. Following observations made during excavation works undertaken across the site, it was considered that excavations greater than 2.5m at the eastern detention pond and potentially during the construction of the groundwater cut off wall, represent a potential source of odours during earthworks if left unmitigated. As such mitigation is recommend to control potential release of odours to ambient air during the remedial works. These could include:

- The removal of cover in small areas, reducing the area of potential odorous soils exposed at the surface at any one time;
- Keeping a source of 'clean' non-impacted soils/material close to the excavation areas and cover any significantly odorous materials exposed at the surface for an extended period of time with 'clean' material to help restrict release of odorous emissions at the surface;
- Deploy odour suppression sprays/mists in the immediate vicinity of excavation areas that have the potential to uncover odorous materials;
- Undertake regular vapour monitoring at the excavation and around the perimeter, supplemented with vapour samples from baseline monitoring locations.

1.4.3 Ecology

Ecologists have undertaken habitat surveys across the site. The surveys identified the site to comprise of dense/continuous and scattered scrub, ephemeral/short perennial, poor semi-improved grassland and bare ground. The majority of these habitats were identified to be of limited ecological interest, but potentially important at the Local level.

Badgers have been identified on site and were previously discouraged from occupying The Gower to prevent them burrowing into and disturbing the buried waste. Previously badgers have constructed a small outlying sett at The Gower for occasional use and a licence was acquired from Natural England to carry out works to exclude the badgers and install measures to discourage their return. A further badger survey will be undertaken prior to commencement of any works. Should the survey determine the badger activity to be sustained on site and the sett entrance to still be in use a badger licence is likely to be required (from Natural England) prior to the remediation works. The extent of badger mitigation required will depend on the category and status of the sett.

Any vegetation clearance required prior to commencement of remedial works will aim to be undertaken prior to March to avoid the breeding bird season (usually March to August).

1.4.4 Noise

Noise modelling has predicted potentially elevated noise levels if left unmitigated, particularly when plant is operating close to the boundaries of the site adjacent to residential properties and school. However, these are considered to be short term daytime disturbances. Potential mitigation measures have been identified and include:

¹ Volatile Organic Compounds – a suite of organic chemicals capable of giving rise to gases from certain solids or liquids which may have potential health affects

- Installation of noise barriers around the boundary of the site;
- Liaison with the adjacent school to minimise disruption during noise sensitive times of year or week.

1.4.5 Traffic & Transport

Access to the site is from Lower City Road, via the premises of Lift and Skate Ltd. During the estimated 31-week process to install the cap, there is anticipated to be an average of two to three HGV deliveries per hour. A traffic plan will be prepared with the appointed contractor and is likely to include avoiding movements during school drop-off and collection and directing HGVs to use the A4123 (New Birmingham Road) on their way to and from Lower City Road, to minimise additional traffic on smaller roads.

There are no alternative viable methods for moving the materials required. For example, the canal is not wide enough for industrial barges and there are no landing facilities.

1.4.6 Flood Risk Assessment

The construction of the cap across the surface of the site will result in the current permeable ground surface being replaced with a low permeability clay soil capped surface. If unmitigated, this could result in an increase in surface water flooding on site, and potentially increase surface water run-off to adjacent sites.

To address this risk, the design of the remediation works includes a surface water drainage strategy that includes surface retention and attenuation ponds, and French drains around the perimeter of the site. This system has the capacity to capture and attenuate the additional runoff generated by the new low permeability surface. The collected surface waters will be discharged into a culvert that passes through the site and ultimately discharges to River Tame.

1.4.7 Land Quality

The site has been investigated since 1992 to determine the nature of the materials deposited at the site during the course of its operation. Since 2014, Environmental Resources Management Limited (ERM) has advanced investigations to assist in developing the remediation strategy for the site.

The groundwater risk assessments show that there is no significant risk of groundwater beneath the site impacting local watercourses, in its current condition (i.e. pre remediation). Whilst elevated groundwater samples have been identified in a limited number of samples which have the potential to give rise to vapours, elevated concentrations have not been identified along the boundary of the site, indicating impacted groundwaters are not currently migrating off site. In addition, the installation of the sub surface cut off barrier along the eastern boundary (direction of groundwater flow from site) will provide certainty on the containment of the groundwater on site along the eastern boundary. Vapour samples obtained from monitoring wells installed along the boundary of the site have not recorded any elevated concentrations. As such the potential risk to off-site residential properties from the site is considered to be low.

No significant risk to local residents/employees or surface water courses have been identified on completion of the works. It is considered that the only existing risks relate to maintenance and remediation workers coming into contact with the waste materials or impacted groundwater contained on site during the existing site conditions or during the remedial works. However, the potential risks will be controlled through procedures required by health & safety regulations applicable to the management of such works.

Notwithstanding the absence of any identified potential significant risks to local residents/businesses or surface water courses, Solvay proposes to undertake the aforementioned remedial works to improve the management of the site.

1.4.8 Landscape & Visuals

The local landscape character within the site is considered of low to medium value as the site does not sit within any local landscape designation.

On completion of the works the site will consist of a re contoured site including two detention ponds. The installed cap will increase the general site level by around 1.4m. The site will be landscaped and there will be no other permanent features remaining on the site.

An indicative Landscape Design (see Figure 3) has been produced providing details of the proposed planting/ revegetation of the site on completion of the works. The design includes mixed native scrub plants and meadow grass seeds. The planting will provide low and medium level cover and some screening and filtering of views. It will also assist in integrating the site back into the landscape.

The figures below present photomontages of the existing visual effect together with the predicted post remediation visual effects for years 1 and 12 from George Wood Avenue to the east of the site.

Figure 4 Existing View from George Wood Avenue (East of the Site)

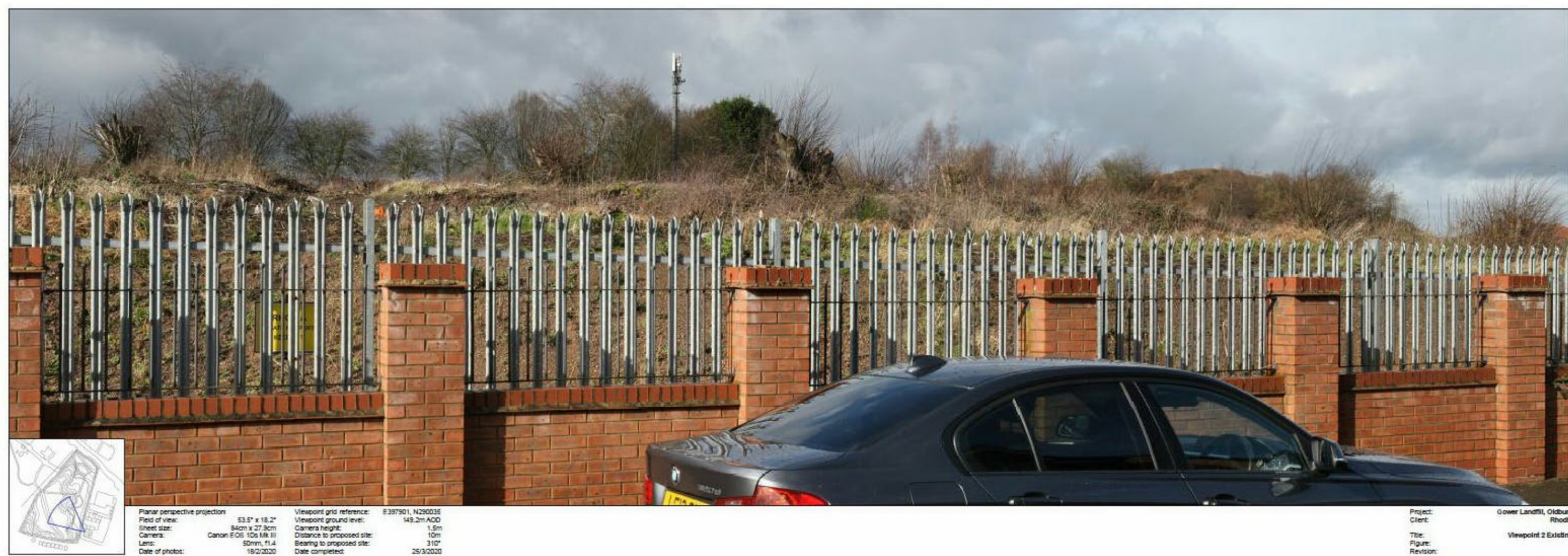


Figure 5 Year 1 View from George Wood Avenue (East of the Site)

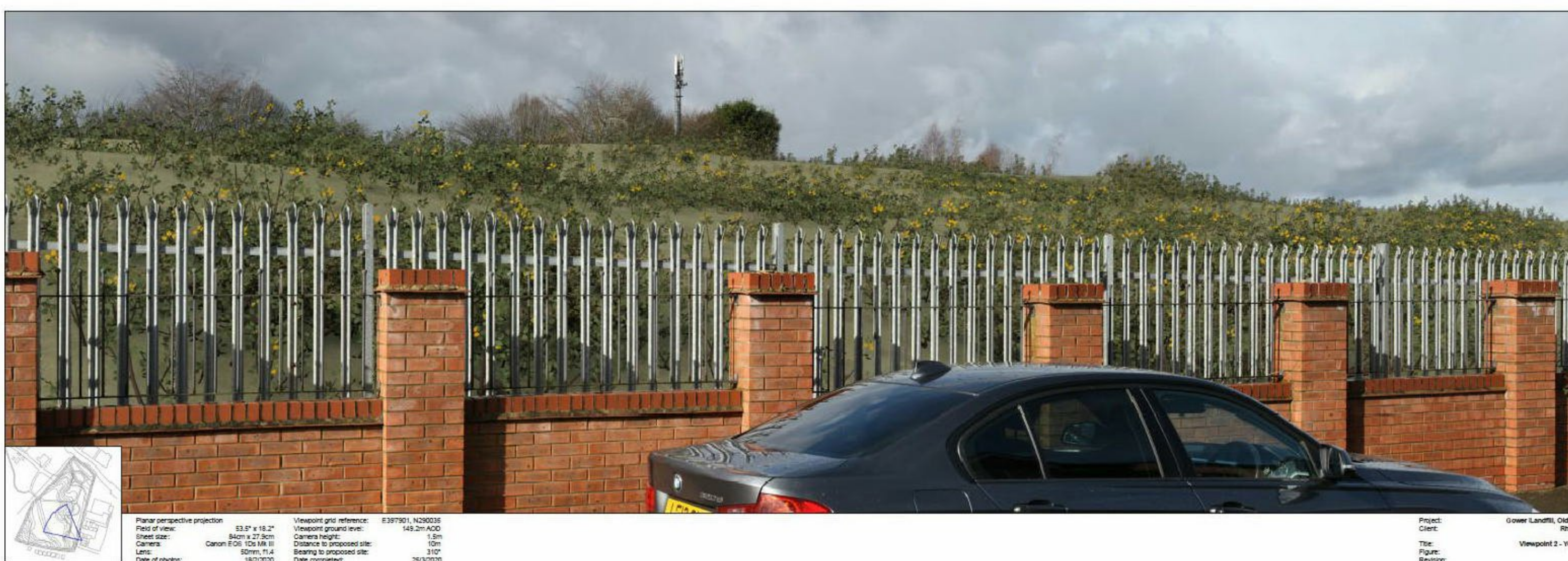
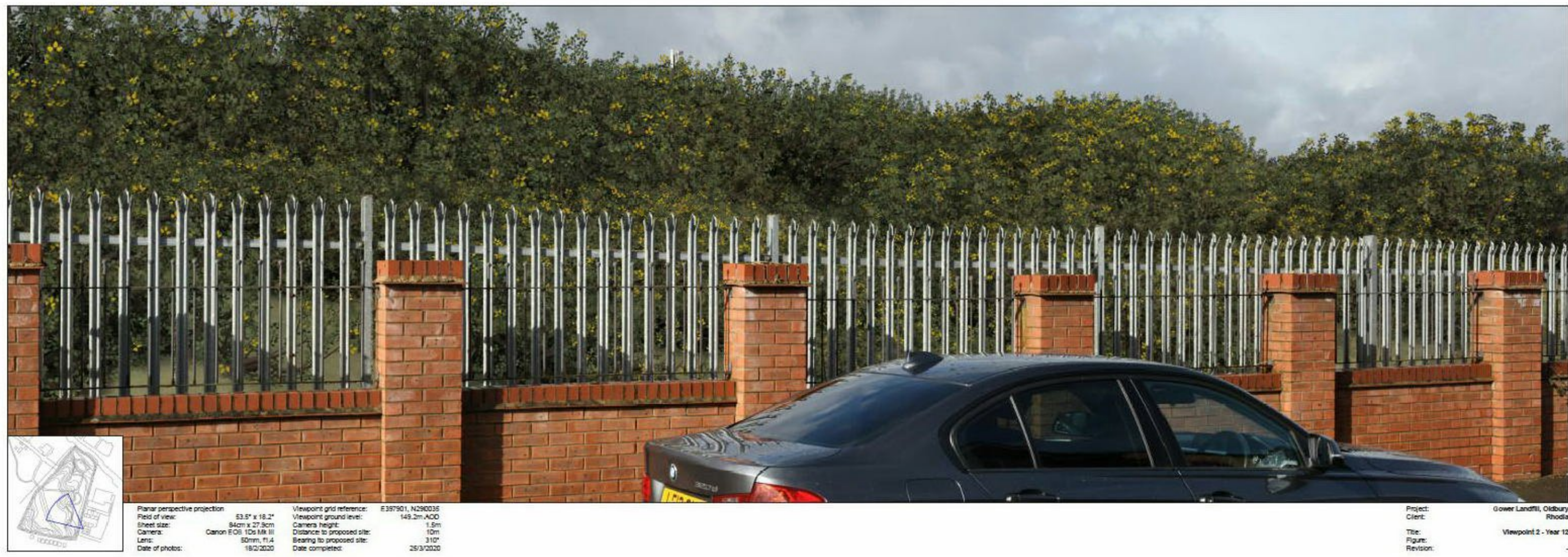


Figure 6 Year 12 View from George Wood Avenue (East of the Site)



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