



GRANDISON BROOK FLOOD ALLEVATION SCHEME

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1. Introduction

On behalf of Neath Port Talbot Council (NPTC), AtkinsRéalis Ltd requests the Competent Authority (Neath Port Talbot Council) to adopt an EIA Screening Opinion to determine whether any of the potential environmental impacts of the Grandison Brook Flood Alleviation Scheme (the Scheme) are likely to give rise to significant effects, and therefore require assessment as part of an Environmental Impact Assessment under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the “EIA Regulations”).

A previous screening request was sent to NPTC on 19 August 2024. Late consultation correspondence from Cadw stated that insufficient information on mitigation had been provided and that a new screening opinion be submitted containing a mitigation programme. Subsequently a consultation with Cadw on 22 October has been held on site and further design changes have been made including consideration of further mitigations. Cadw have indicated that they no longer consider that an EIA is required, however a Heritage Impact Statement (HIS) can be provided via the Scheduled Monument Consent.

This report reflects the requirements of the EIA Regulations and, in accordance with Regulation 5 of the EIA Regulations, this report contains:

- *“A plan sufficient to identify the land (see Appendix A);*
- *A description of the development (see Chapter 2), including in particular:*
 - *A description of the physical characteristics of the development and, where relevant, of demolition works;*
 - *A description of the location of the development, with particular regard to the environmental sensitivity of geographical areas likely to be affected;*
- *A description of the aspects of the environment likely to be significantly affected by the development;*
- *To the extent the information is available, a description of any likely significant effects of the Scheme on the environment resulting from:*
 - *The expected residues and emissions and the production of waste, where relevant; and*
 - *The use of natural resources, in particular soil, land, water and biodiversity; and*
- *Such other information or representations as the person making the request may wish to provide or make, including any features of the Scheme or any measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment”.*

In order to determine whether the Scheme is ‘EIA development’, regard must be given to the EIA Regulations.

In order to allow the Competent Authority to determine the need for EIA, this report provides a description of the site and Scheme, a review of the EIA screening criteria based on the EIA Regulations and a Site Location Plan at Appendix A.



2. The Site

2.1 Site Location and Description

The proposed scheme is situated in Briton Ferry and is located entirely within the administrative boundary of Neath Port Talbot Council (NPTC). The proposed scheme is located approximately 8km northeast of Swansea and 3km south of Neath. The Grandison Brook Flood Alleviation Scheme (the Scheme) is located primarily within the residential area of Briton Ferry, in Neath Port Talbot. The site area includes a large cemetery at Ynysymaerdy Road, school (Carreg Hir) and a number of recreational facilities/ amenities (park, bowling green, rugby and cricket club, football club, pitches and allotments) and undeveloped (formerly industrial) scrub land. In addition, the site incorporates transport infrastructure including a main road (A474) and railway lines (including the South Wales main line). There is a park and a woodland to the south of the site, beyond the proposed scope of works.

The town is located east of the River Neath, which flows in a north-east to south-west direction within the Neath Valley, bounded by steep slopes within the upper sections of the valley, with the north and south slopes exceeding 100m AOD. The town is centred around the A474 (Neath Road and Pant Yr Heol) which acts as the district centre. The surrounding area, to the south-east is typified by steep wooded valleys which rise away from Briton Ferry, with densely populated housing area to the west of the A474. The proposed scheme is at an approximate average elevation of 7m Above Ordnance Datum (AOD), with the significantly higher elevation of 42m AOD at the south-east boundary of the Grandison Brook culvert. The topography of the wider area is more variable, with elevation decreasing in a west direction.

The location for the scheme is shown in Figure 2-1 overleaf.



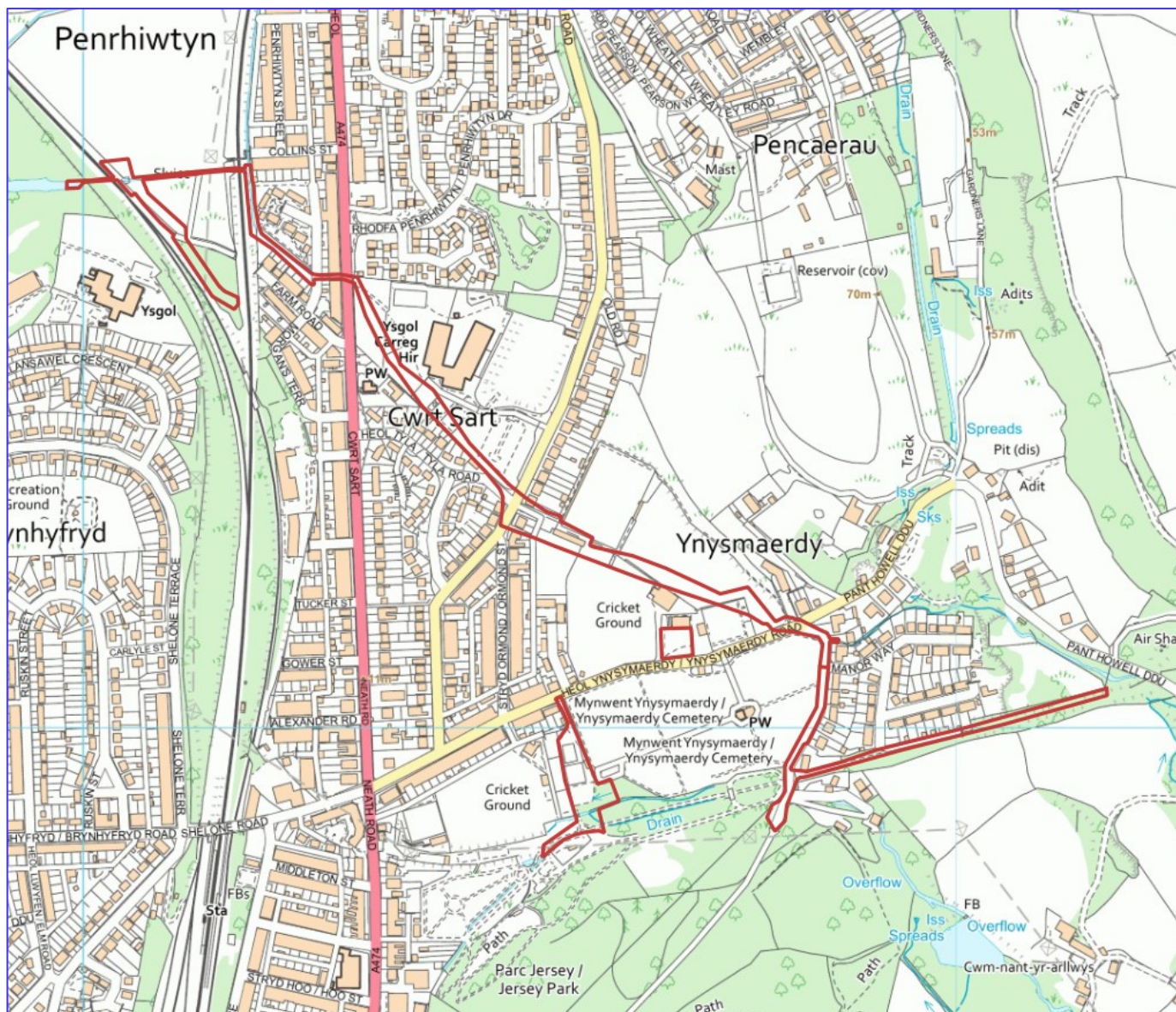


Figure 2-1 - Proposed Site Location

2.2 Environmental Context

A desk-based review of online environmental information resources has been undertaken to establish the potential sensitivity of the site and its surroundings. This has been supplemented by information provided in the individual assessments set out in this chapter. The report indicates that:

- The proposed embankment and culvert works at Grandison Brook are not located within an Area of Outstanding Natural Beauty (AONB);
- There is one designated nature conservation site within 2km of the proposed site (Earlswood Road Cutting);
- A Site of Special Scientific Interest (SSSI) is located approximately 1.5km south-west of the site and designated for geological features and ancient river systems.

There are six locally designated sites within 1km of the site, including.

- Eaglesbush Valley local nature reserve, located approximately 1km north-east of the site;
- The River Neath is a Sites of Importance for Nature Conservation (SINC) located 1km west of the site; There is an ancient semi-natural woodland to the south (18274);
- There is also a restored ancient woodland (11351) located within the vicinity of Jersey Park to the south and adjacent to the above;
- A Schedule Monument located at the site is Ynysmaerdy Railway Incline;
- A further Scheduled Monument is located approximately 160m north-east of the development site. The Scheduled Monument is located within the Ysgol Carreg Hir school grounds (Carreg Hir Standing Stone, Pen-Rhiw-Tyn);
- Jersey Park is designated as an Historic Park and Garden, and
- The Natural Resources Wales (NRW) flood map indicates that the areas of Briton Ferry are noted as being at high risk of surface water flooding which is defined by NRW as a greater than 1 in 30 (3.3%) AEP event. These sources of flooding are predominantly from Grandison Brook Catchments. The second source can be seen as Ynysmaerdy Brook, which combines with Grandison within the current culvert system.



3. Proposed Development

3.1 Summary of proposed works

In broad terms, the proposed works will involve installation of a new culvert in the highway and through green/open spaces, plus the enclosing of the current open channel within a culvert in some sections. The new culvert will re-join the existing watercourse further downstream before it discharges into the River Neath. The proposed development is shown in Drawings No. NE05_001-ATK-GEN-SWMWREC-DR-CD-000001/P01.2 and NE05_001-ATK-GEN-SWMWREC-DR-CD-000002/P01.2 in Appendix B which provides the Proposed Grandison Brook Scheme Overview. The Grandison Brook Flood Alleviation Scheme is required to mitigate flooding to properties along the Grandison Brook within Briton Ferry and comprises of the following elements:

- Localised raising of the existing bank along the Rhodfa Clarke walk to 0.5m high;
- Localised regrading of land, proposed drainage ditch and a new masonry clad headwall near where the Rhodfa Clarke walk meets Ynysymaerdy Road;
- Construction of a buried surface water storage tank below the play area within Jersey Park including new inlet structure, pipe inlet and a new section of watercourse with a pedestrian footbridge over the watercourse;
- Replacement of the galvanised parapet and handrail and improve the surface of the existing footbridge leading to the play area at Jersey Park. These changes aim to match the early 20th-century architectural style that is prevalent throughout the park.
- Refurbish the existing inlet structure of Ynysymaerdy Brook on Ynysymaerdy Road, replacement of an existing galvanised steel trash and security screen contained within a concrete structure with a new screen.
- Excavate and remove the existing culvert at Ynysymaerdy Road between the inlet and the playing fields and replace it with a new section of pipe culvert at 750mm diameter and 1200mm diameter in open trench, likely requiring multiple utility service diversions;
- Excavate for installation of a new 1200mm diameter culvert in open trench across the playing fields, and through allotments behind the Llansawel AFC grounds to Old Road, where multiple utility service crossings are likely to be needed, and then continuing in open trench through the school grounds towards Pant Yr Heol. There will be additional works to make improve access roads with additional parking to the Llansawel AFC following installation of the culvert.
- Excavate for the installation of a new 1200mm diameter culvert in open trench across Old Road and into the school grounds at Ysgol Carreg Hir. The proposed culvert will run in a north-westerly direction through the school grounds towards Pant Yr Heol Road.
- Before crossing Pant Yr Heol the culvert will change form from a 1200mm diameter pipe culvert to twin culverts each of 1250 x 750mm in size. The culvert will be installed in open trench excavation across Pant Yr Heol, through the existing gap between the houses, and continue towards the railway crossing; again, multiple utility service crossings are likely in Pant Yr Heol. Part of the existing section of open channel which runs along the railway embankment will become culverted;
- A new 1750 x 1000 box culvert will be constructed immediately to the east of the mainline railway line to connect to the existing brick arch culvert which passes under railway near Collins Street. Land to the rear of properties on Farm Road will be raised slightly over the route of the culverts. Due to this raising of land, gabion baskets will be required to support the earthworks alongside the existing watercourse part of which will be retained. Galvanised handrail will be installed on top of the proposed chamber structure where the new box culvert connects to the existing brick arch culvert. This chamber will be formed of concrete and will be around 2m above the existing ground. The storm water will then proceed within the existing ditch towards the freight railway line further to the west;
- A stainless steel flap valve will be installed on the downstream side of the existing railway culvert to prevent backflow of flood water towards the residential area at Pant Yr Heol.
- A proposed flood defence bund with crest level at 6.5m AOD immediately east of the freight railway line will be constructed to protect the rail line from increased flood levels during extreme storm events; A short section of



concrete retaining wall around 1.25m high will be constructed above an existing culvert parapet wall as part of the proposed flood defence bund;

- There will be a general commitment to reinstatement of disturbed areas along the construction route, and landscaping proposals will be developed to make good once the works are finished. Most of the reinstatement will be straightforward replacement with similar materials where the proposed culvert crosses the highway and the playing fields. It is likely that some trees will be lost through the school grounds and a small copse of trees will need to be removed from the corner of the cricket pitch and need replacement/ mitigation planting offset from the line of the new culvert (i.e. it is not recommended to plant trees near the new culvert).
- The area to be used temporarily for the contractor's site compound is described below. There is likely to be a separate compound needed to serve the works between the two railway corridors, potentially on land in private ownership (subject to landowner agreement).
- The culvert excavation is generally likely to be in the range of 2.5 to 3m deep and up to 3m wide.

Proposed Temporary Works

Temporary works associated with the proposed development include a works compound area for the storage of plant and machinery and accommodation/welfare facilities, during the construction period. The proposed location for one of the temporary compounds is within the Briton Ferry Woods Car Park on Ynysmaerdy Road (refer to Figure 3-1 below). The works compound will also be used for storage of topsoil from the excavations which will be used for reinstating the works area.

Other potential locations for site compounds include the car park at Ysgol Carreg Hir School or the car park at the Briton Ferry RFC rugby club.



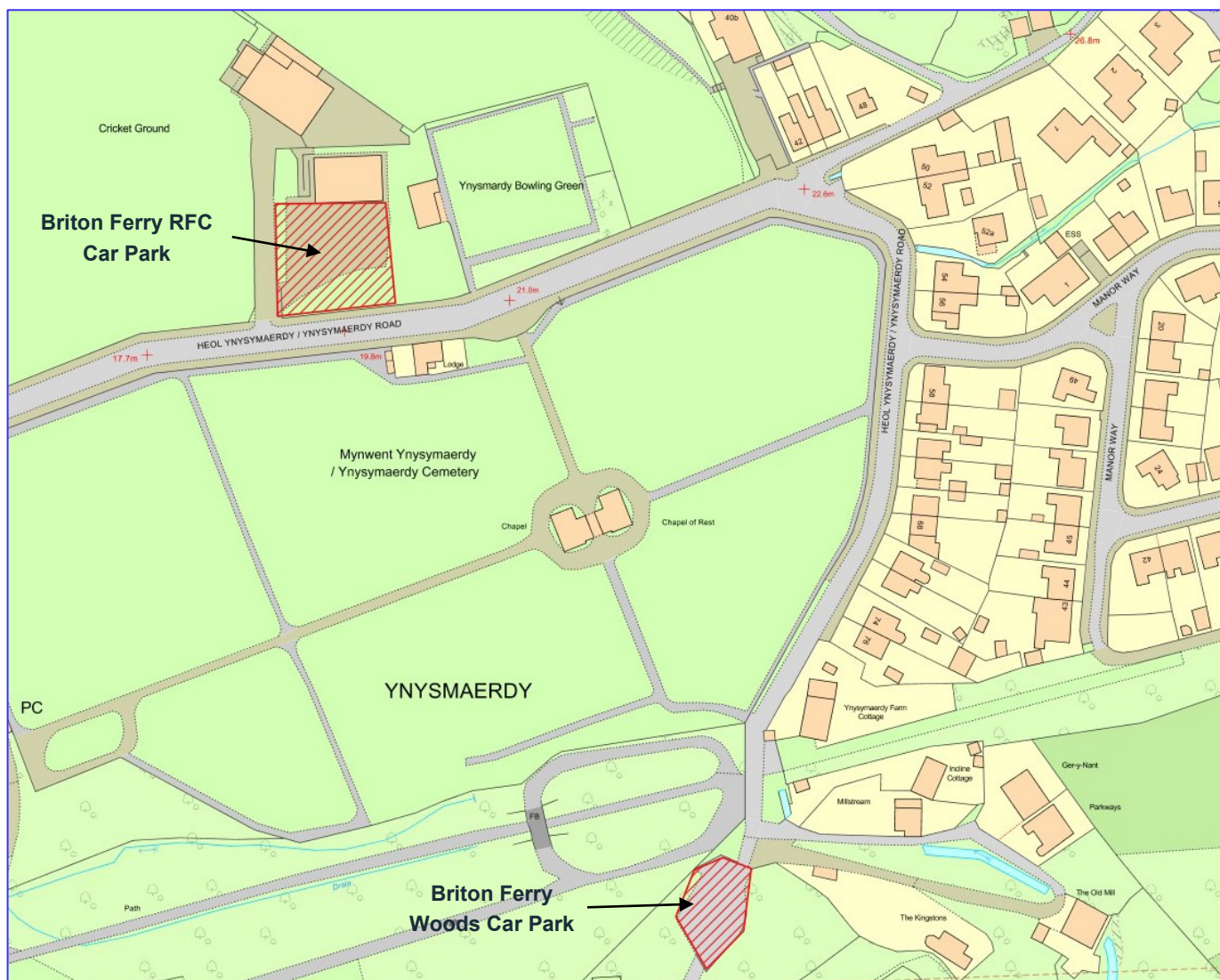


Figure 3-1 - Proposed Location of a Construction Compound

Construction of the Proposed Development

It is anticipated that all construction activities will be limited to daytime hours (for example, 7:30am to 6:00pm from Monday to Friday, and from 8:00am to 1:00pm on Saturdays, or similar). The anticipated duration of the construction is 12 months. It is important to note that the overall scheme will be split into sections and as a result a phased approach will be taken.

3.2 Need for Development

The Pant Yr Heol area of Briton Ferry is subject to periodic flooding whereby residential and commercial properties are known to have flooded internally. The cause of the flooding arises from multiple sources associated with under-capacity of the Grandison Brook culvert. Flood water is known to spill out of bank at the inlet at Ynysymaerdy Road and flow overland towards Pant Yr Heol, and water is also forced out of the culvert at other locations. At the A474

Pant Yr Heol highway, surcharging of the culvert prevents surface water from draining away through the culvert, resulting in the ponding and collection of surface water on the highway and flooding of properties.

Grandison Brook arises in the Ynysymaerdy district of Briton Ferry. It is fed by open channel tributary watercourses of Upper Grandison Brook and Ynysymaerdy Brook. Both watercourses enter culverts and the two culverts converge near the junction of Ynysymaerdy Road and Pant Howell Ddu. The Grandison Brook is then conveyed underground for some 1.5km, under the A474 Pant Yr Heol road and another un-named road to the rear of the A474 (the service road approaching Brook Court/ Lys-y Nant Road), before passing under the railway line (Neath Branch) to ultimately discharge to the River Neath to the west of the two railway corridors.

Properties in the vicinity of Pant Yr Heol in Briton Ferry experience flooding because there is insufficient capacity in the existing drainage system to convey surface water from the Grandison Brook during certain storm events. The proposed scheme is required to alleviate high probability flood risk from the Grandison Brook watercourses to properties on Briton Ferry. Following detailed feasibility and hydraulic modelling, this scheme (proposed application) is put forward for works to provide capacity to alleviate flooding to the 1 in 100 year/1% Annual Exceedance Probability (AEP). The proposed removes over 264 buildings from receiving damage from the predicted 1% (1 in 100) Annual Exceedance Probability (AEP) flood extent. The works will involve installation of a new culvert along a route parallel to the existing culvert system within the highway and through playing fields and allotments, which will be buried underground. The overall increase in the capacity of the new culvert system will allow flood flows to continue to discharge from Grandison Brook to the River Neath.

AtkinsRéalis was commissioned to undertake the detailed design work for the scheme in September 2019 which included carrying out of detailed hydraulic modelling. The modelling work highlighted updates to hydrological assumptions using latest guidance from that carried out in earlier studies and also confirmed that the original proposals caused detrimental effects in flooding to downstream property receptors. Significant reworking of the scheme was undertaken to avoid the detriment which has resulted in a larger scheme than originally envisaged i.e. a longer proposed culvert which outfalls to a watercourse which connects in the River Neath.



4. Screening Process

The EIA Regulations require that before consent is granted for certain types of development, an EIA must be undertaken. The EIA Regulations set out the types of development for which EIA is mandatory in Schedule 1 and other developments (defined in Schedule 2) which may require an EIA if they exceed specified thresholds and have the potential to give rise to significant environmental effects.

The following should be considered in determining whether the proposed Scheme at Grandison Brook constitutes EIA development:

- If the proposed development is of a type listed in Schedule 1;
 - If not, whether the proposed development is of a type listed in Schedule 2; and, if so, whether:
 - any part of it is located within a sensitive area; or
 - it meets any of the relevant thresholds and criteria set out in Schedule 2; and
 - it would be likely to have significant effects on the environment.

These points are explored further in this section with reference to the EIA Regulations.

4.1 Screening Process

4.1.1 Schedule 1 Projects

EIA is mandatory for projects listed in Schedule 1 of the EIA Regulations. Schedule 1 developments are large scale projects for which significant effects would be expected and comprise developments such as new airports and power stations.

The proposed development is not of a type listed in Schedule 1 and is reviewed in the following section to determine whether it is Schedule 2.

4.1.2 Schedule 2 Projects

The EIA Regulations define “Schedule 2 development” as development, other than exempt development, of a description mentioned in column 1 of the table in Schedule 2 “*where—*”

- a. any part of that development is to be carried out in a sensitive area; or*
- b. any applicable threshold or criterion in the corresponding part of column 2 of that table is respectively exceeded or met in relation to that development;”*

Sensitive Areas considered in the EIA Regulations include:

- Sites of Special Scientific Interest (SSSI) and European Sites;
- National Parks, the Broads, and Areas of Outstanding Natural Beauty (AONB); and
- World Heritage Sites and Scheduled Monuments.

In certain cases, local designations which are not included in the definition of sensitive areas, but which are nonetheless environmentally sensitive, may also be relevant in determining whether an assessment is required. Furthermore, in considering the sensitivity of a particular location, regard should also be had to whether any national or internationally agreed environmental standards are already being approached or exceeded.



The proposed works do not fit into any of the development descriptions listed in Column 1 of the table in Schedule 2 of the Regulations. The closest description is found in Part 10(h) infrastructure projects which includes 'urban development projects' such as flood -relief works. The site area for the works is likely to be above the 1ha size threshold in Column 2 of the table and is partially located within a Schedule Monument and so the Scheme is considered to be a 'Scheduled 2 Development'.

For Schedule 2 development EIA is required if the development is 'likely to have significant effects on the environment by virtue of factors such as its nature, size or location'.

There is one designated nature conservation site within 2km of the proposed site; Earlswood Road Cutting and Ferryboat Inn Quarries Site of Special Scientific Interest (SSSI) is located approximately 1.5km south-west of the site and designated for geological features and ancient river systems. There are four locally designated sites within 1km of the site, including:

- Eaglesbush Valley local nature reserve, located approximately 1km north-east of the site;
- The River Neath is a Site of Importance for Nature Conservation (SINC) located 1km west of the site;
- There is an ancient semi-natural woodland to the south (18274); and
- There is also a restored ancient woodland (11351) located within the vicinity of Jersey Park to the south and adjacent to the above.

There appears to be no Tree Preservation Orders (TPO) within the site area. The NPTC Arboriculturist has confirmed there are no tree preservation orders within the grounds of the school.

A public right of way (PRoW) runs through the sports ground (Footpath 37/MO.ANY1/1) starting at Ynysmaerdy Road. It follows the northern edge of the sports ground, the eastern edge of the football ground, and ends where the access road for the sports ground meets Old Road. There is a pedestrian footbridge over the railway line at Collins Street, but this is disused and sealed by Network Rail to prevent pedestrian access.

During construction there is the potential for some temporary adverse effects due to noise emissions, dust generation, disruption to vehicular and non-vehicular access and water pollution and soil pollution. However, subject to the implementation of normal mitigation measures regarded as good practice, such effects are unlikely to be significant.

4.2 Environmental Topics Considered

The following sections set out a review of the above criteria and requirements and specifically addresses the Scheme in relation to the following topics:

- Landscape/Visual Amenity
- Construction Noise/Vibration
- Flood Risk & Water Quality
- Construction Traffic
- Waste and Ground Conditions
- Built Heritage and Archaeology
- Ecological Impact Assessment



5. Landscape and Visual Amenity

Construction Effects

Construction activities associated with all aspects of the Scheme, including construction compounds will require temporary above ground works which will have a temporary adverse effect on landscape character and on the visual amenity of local residents, users of green/open spaces and people travelling through the area. The construction activities will introduce small scale, localised and temporary uncharacteristic features such as excavators, dumpers and associated workforce.

Once the affected culverts either within the public highway or in green/open spaces have been replaced, the original landscape will be reinstated.

Given the short duration of these construction activities, and the commitment to reinstate the landscape along the construction route, the effects on landscape character and visual amenity will not be significant.

Some elements of the Scheme will involve loss of vegetation including trees. The Scheme will incorporate a landscape planting strategy to mitigate for the loss of trees and other soft landscaping.

Operational Effects

The replacement culverts will be buried and so, once constructed, they will generally have no impact on landscape character or visual amenity. The new box culvert adjacent to the railway will include earthworks and gabion baskets plus galvanised handrail on top of a proposed chamber near the existing brick arch culvert under the railway. While these elements of the Scheme will introduce new above ground features that will be permanently visible, they will not be in a prominent location and are not predicted to have a significant effect on landscape character or visual amenity.

The Scheme is an engineering project to manage surface water drainage. As such its aesthetic design is utilitarian and simple. The sizing of the various elements that form part of the Scheme, such as inlet structures and headwalls is determined by the capacity required to manage flood risk so the various elements will be slightly larger in scale.

The raised embankment proposed along the Rhodfa Clarke Footpath would impact on visual amenity but due to the limited scale of those works, the effect is not predicted to be significant.

The introduction of a flood bund in Jersey Park including any vegetation clearance would impact on landscape character and visual amenity. However due to the limited scale of the proposed bund those impacts are unlikely to be significant.

Excavation to create buried surface water tank and the establishment of a short section of watercourse within Jersey Park, including vegetation removal and permanent earthworks, will impact on landscape character and visual amenity. Given the limited scale of these elements of the Scheme and with landscape mitigation in place, the impact is not expected to be significant.

The introduction of a flood defence bund and a precast concrete headwall north of the freight railway line would not have a significant effect on landscape character or visual amenity due to the limited scale of the works, the low sensitivity of the receiving landscape and the limited visual envelope of that part of the development site;

The proposed scheme development has been carefully designed to ensure its visual impact is as limited as possible whilst still providing flood alleviation to neighbouring properties. The scheme design seeks to minimise its impact above ground while not impacting on the ancient woodland or streetscape within Briton Ferry. The arrangement and



mainly underground nature of much of the scheme and the colours of materials chosen ensure that it is acceptable in design and visual terms.

6. Construction Noise/Vibration

6.1 Baseline Conditions

The Grandison Brook Flood Alleviation Scheme (Proposed Development) is located primarily within the residential area of Briton Ferry. There are numerous noise sources within proximity to the Scheme including:

- Railway line and associated train activity on the South Wales Main Line which runs trains to Swansea and West Wales. There is no strategic noise mapping from railway lines available for the Briton Ferry area.
- The (Ysgol Carreg Hir) Primary School
- A number of recreational facilities/amenities including bowling green, rugby and cricket club, football club, pitches and allotments;
- Commercial premises including shops, cafes, a small industrial estate and garages off Station Road;
- Road network, including the main road (A474) which is a key transport route through Briton Ferry. Excess road noise levels identified within the area of the Scheme are centred around the A474 affecting the primary school adjacent to the proposed works, and several residential properties in proximity to the culvert works.

6.2 Potential Effects

A qualitative review of the potential effects in relation to construction noise and vibration has been carried out. No detailed modelling or assessment work has been carried out.

6.2.1 Construction

Construction of the Scheme will result in an increase in noise from construction traffic and plant noise associated with general construction activities. All construction noise will be managed through standard best practice measures including through adopting standard working hours.

The Ysgol Carreg Hir Primary School and residential properties along Tyla Road are located within the buffer area for the proposed construction of a new 1200mm diameter culvert. Properties located at Brook Close are located within proximity to the proposed pre-cast box culvert.

Properties located along Ynysmaerdy Road are close to proposed works to replace a culvert, modify the inlet structure and the new headwall structure.

All construction noise impacts will be short term, temporary and fully reversible when works are completed.

6.2.2 Operation

Following construction, routine maintenance of the Scheme assets, as well as the wider Scheme will consist of inspections of the assets and management of vegetation along the watercourse. This will likely be undertaken by hand/trimming and will not generate large amounts of noise. Periodic cleansing of the drainage network would be



undertaken every few years by specialist drain cleaning 'Jetvac' machinery. Therefore, no operational impacts from noise and vibration are anticipated.

6.3 Mitigation

To minimise the disturbance due to noise during the construction phase of the Scheme, the following measures will be implemented:

- Construction working hours will be limited to between 7:30 and 18:30 Monday to Friday, and 08:00 and 13:00 on Saturdays. No construction activity will be undertaken on Sundays or Public Holidays.
- All equipment will be well-maintained and, where possible, will be used in the mode of operation that minimised noise. Plant and equipment will be shut down when not in use. Mobile construction plant and compounds will be located, as far as reasonably practicable, away from adjacent occupied buildings or as close as possible to noise barriers or site hoardings to provide additional screening from sensitive noise receptors. Materials will be handled in a manner than minimised noise with minimal drop distances when offloading material.
- Reversing alarms will incorporate one of the following features where practicable: directional sounders, broadband signals, self-adjusting sounders, flashing warning lights. Alternative comparable systems may be used. Vehicles will not wait or queue on the public highway with engines running. Only designated lorry routes will be used, in normal working hours where possible.

With the adoption of standard working practices, no significant noise effects during the construction of the Scheme are likely.

7. Traffic and Access

7.1 Baseline Conditions

Part of the proposed development site crosses the A474 (Pant yr Heol), which runs from Neath to Briton Ferry. Several local residential streets also lie within the proposed development site.

A new inlet structure is to be situated at the base of the Rhodfa Clarke footpath. Part of that footpath is a public right of way (PRoW footpath 30/MO.ANB18/1).

A public right of way (Footpath 37/MO.ANY1/1) runs along the northern edge of the rugby pitch.

7.2 Potential Effects

7.2.1 Construction

During construction, there will be an increased level of traffic and plant on the roads as a result of delivering personnel, materials and plant to site. The A474 highway provides the principal route into the area



Access for construction traffic to the works proposed to the east of the A474 will be from the local highway network including the A474, Ynysymaerdy Road, Old Road and Tyla Road. Construction traffic will also use Ynysymaerdy Road to access the proposed construction compound at the Briton Ferry Woods car park or off Old Road for site compounds at the school or cricket ground. Access to the work areas west of the A474 will be via the A474 and the residential roads and the unnamed routes which lie between the A474 and the South Wales mainline railway. The proposed works between the railway lines would be accessed by the A474 and a private access across the South Wales mainline railway.

To construct the proposed Ynysymaerdy Road culvert, temporary lane closures will be required along Ynysymaerdy Road, which will affect access to Manor Way. It is envisaged that access to these streets for residents and local businesses will be continued for the duration of the construction works, with the lane closure controlled by either temporary traffic signals or a banksman. Properties to the east of Ynysymaerdy Road will continue to have access during the construction period, although occasional short duration road closures may be necessary in some instances. Due to low construction traffic volumes and the limited duration of the works, the Scheme will not materially affect the operation of the local road network or significantly affect access for local residents or people accessing recreational facilities in and around the development site. A separate highways order from the highway authority will be requested for the traffic management works. Once construction is complete the roads will be returned back to their original state.

The A474 would require traffic light control for single lane operation whilst the new culvert is installed across the highway. There may be a need to relocate the bus-stop location on the A474.

Construction of part of the new culvert will require the temporary removal of a small proportion of car parking spaces at Ysgol Carreg Hir. The spaces will be resurfaced and re-instated once the section of the Scheme through the school grounds has been completed. This effect is not considered to be significant.

Footpath Diversions

It is likely that the Rhodfa Clarke Footpath would need to be closed temporarily during works proposed alongside the footpath.

The public right of way which runs along the northern edge of the rugby pitch (Footpath 37/MO.ANY1/1) would need to be temporarily closed and diverted during the replacement of the culvert at the southern end of the public right of way.

Temporary footway closures will be required where works are proposed across those footways. Temporary and minor diversions will be put in place to ensure safe pedestrian access is maintained during construction of the Scheme.

Given the short timeframes for footpath diversions, the impacts of footpath diversions are anticipated to have a minor adverse temporary effect during construction, which is not significant.

Access to sports and recreational facilities

The Jersey Park playground and its access point from the western boundary with Ynysymaerdy Road would need to be temporarily closed during construction of the below ground surface water storage tank in that location. The temporary loss of the playground would impact on users of the facility. The nearest alternative playground is approximately 1km away. The play equipment would be renewed on completion of the works and NPTC have already developed a replacement scheme. The closure of access from Ynysymaerdy Road would have an adverse effect on access to the park. The closure would be for around 3-4 months but access to the remainder of Jersey Park will be available via alternative existing access points.



A new section of watercourse is proposed in Jersey Park to convey water to the proposed buried storage tank. This will require the footpath on the adjacent Ynysmaerdy Incline to be raised slightly. A temporary closure of this route would be required to raise the footpath. Alternative access routes through the park will be available therefore this temporary closure will not have a significant effect. Once the Scheme is complete the reprofiled path will be open for use.

During construction of the Scheme, the Briton Ferry Woods car park would not be available for parking as it would be used as a construction compound. This would affect access to the woods for recreational use. However, the availability of alternative parking on Ynysmaerdy Road would minimise the effect of the car park closure on recreational users of the woods.

To undertake the works to replace the culvert under the cricket and rugby pitches and under the allotments, the temporary closure of those facilities would be necessary. Some work is also required to an existing buried manhole within the bowling green. This would impact users of those facilities.

7.2.2 Operation

Once operational the transport implications of the Scheme will be limited to regular maintenance and asset survey activities undertaken by NPTC. The Scheme works will act to reduce the frequency of future maintenance required for each of the assets. Therefore, there will be no discernible changes in traffic movements as part of operation of the Scheme.

Once construction of the Scheme is complete users of public rights of way, other footpaths and local recreational facilities should benefit from the expected decrease in flood risk as a result of the Scheme.

Following completion of the Scheme, the resurfacing of the currently poorly surfaced access route to Llansawel AFC will have a positive effect by enhancing access to the football club.

7.3 Mitigation

To reduce disruption to the road network due to the increase in vehicle movements during construction, the following wider traffic and transport management measures will be implemented

- Deliveries of plant and large volumes of material should be organised to take place between 9:30hrs and 16:00hrs to minimise the effects of additional traffic on the roads.
- No night-time working is planned to take place as part of the Scheme, however if this is required for specific sites night working will be reviewed with the possibility of this occurring on weekday nights only.

Indicative traffic volumes during construction and the duration and timing of lane closures will be captured for each element of the Scheme within a dedicated Traffic Management Plan (TMP), which will be managed by the contractor throughout the duration of the construction works.

Pedestrian and traffic management measures will be implemented at the site in line with the TMP. This will include construction programming to minimise the duration of temporary footpath closures/diversions and using temporary fencing and signage to maintain safe access for footpath users.

A designated access route for the movement of plant and equipment from the compound area to the location of the proposed works will be established within the extent of the site.



On completion of the works, the compound area will be demobilised and all plant, lighting, temporary welfare facilities, offices, storage etc will be removed. The car park and footpaths will be returned for use by the public.

The works to replace the culvert under the cricket and rugby pitches and under the allotments would be carefully programmed to minimise the impact on the use of those facilities. In addition, following installation of the replacement culvert the affected ground would be re-instated to its pre-works condition. In conclusion, with good construction practice measures in place, the construction and operation of the Scheme will not have significant effects on operation of the local road network, on local accessibility or the use of recreation facilities.



8. Flood Risk and Water Quality

8.1 Fluvial Flood Risk

The proposed works associated with the Scheme are located solely within the Grandison Brook.

The Natural Resources Wales (NRW) flood mapping (shown in Figure 7-1 below) indicates that the fluvial risks to Briton Ferry are predominantly associated with the River Neath. It should be noted that not all ordinary watercourses (e.g., Grandison Brook) are included in the NRW Flood Risk Map therefore not all potential fluvial flood sources are represented in the figure below. The NRW fluvial flood risk map indicates that areas of Briton Ferry are at a high risk of flooding which is defined by NRW as a greater than 1 in 30 (3.3%) AEP event.

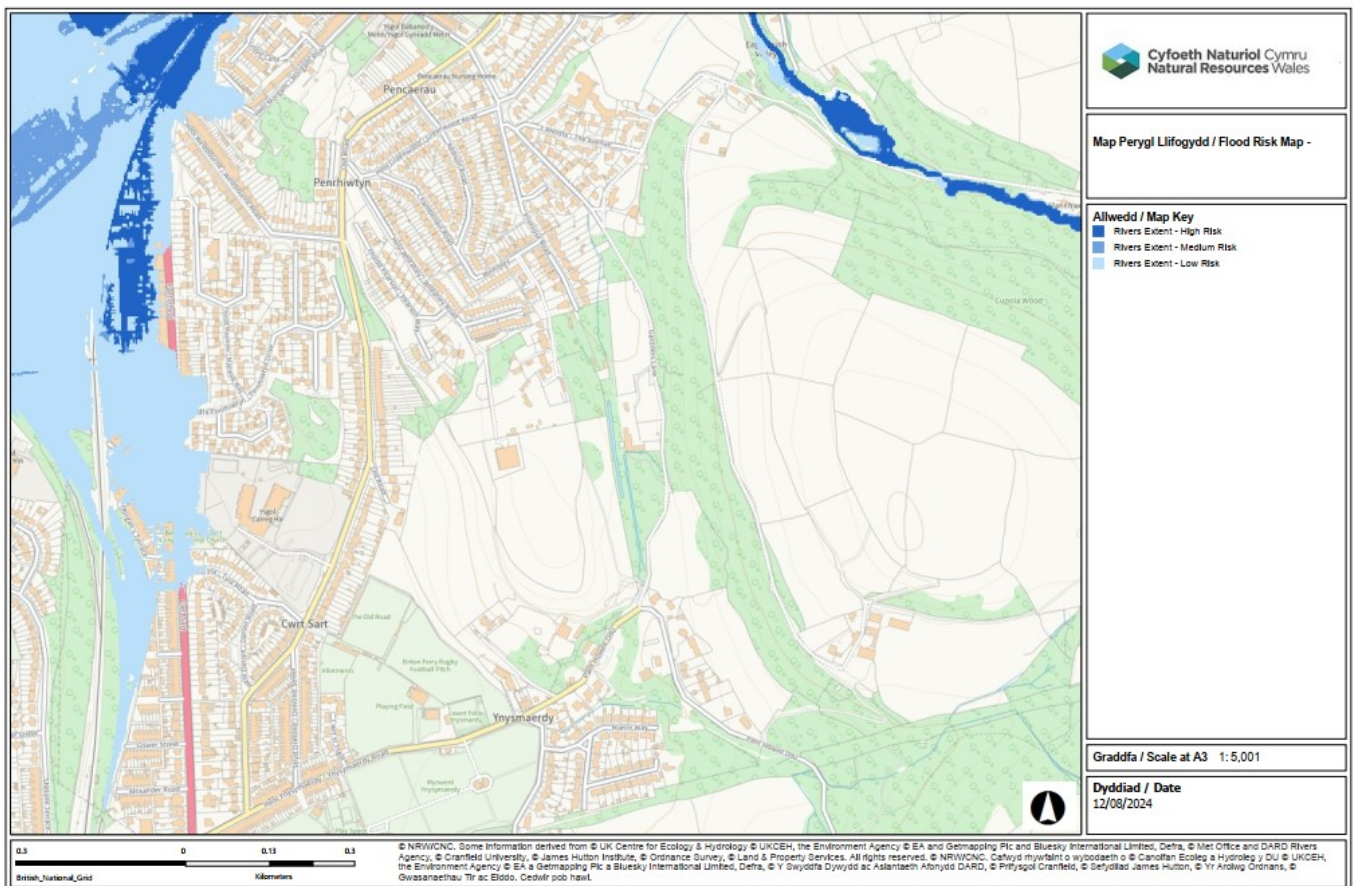


Figure 8-1 - Natural Resources Wales Flood Map - fluvial flood risk map

The Grandison Brook travels down a steep valley side where it passes through a semi natural woodland to the south Ynysmaerdy Road. From here, the watercourse travels through an open channel adjacent to the Rhodfa Clark footpath. The watercourse then travels through a culvert system that has multiple diameter changes and, a significant blockage has been identified. These pass under the highway, sports and recreational grounds, school grounds, and returning to an open channel, between residential properties. The open channel flows through two existing culvert structures under the railway embankment, once it reaches the second culvert it returns to free open flow, and eventually discharges to the River Neath at approximately 1.1km downstream.

Surface water flood risk

The NRW flood mapping (shown in the figure below) indicates that areas of Briton Ferry are at a high risk of surface water flooding which is defined by NRW as a greater than 1 in 30 (3.3%) AEP event. These sources of flooding are predominantly from the Grandison Brook catchments. The second source can be seen as Ynysymaerdy Brook, which combines with Grandison Brook within the current culvert system.

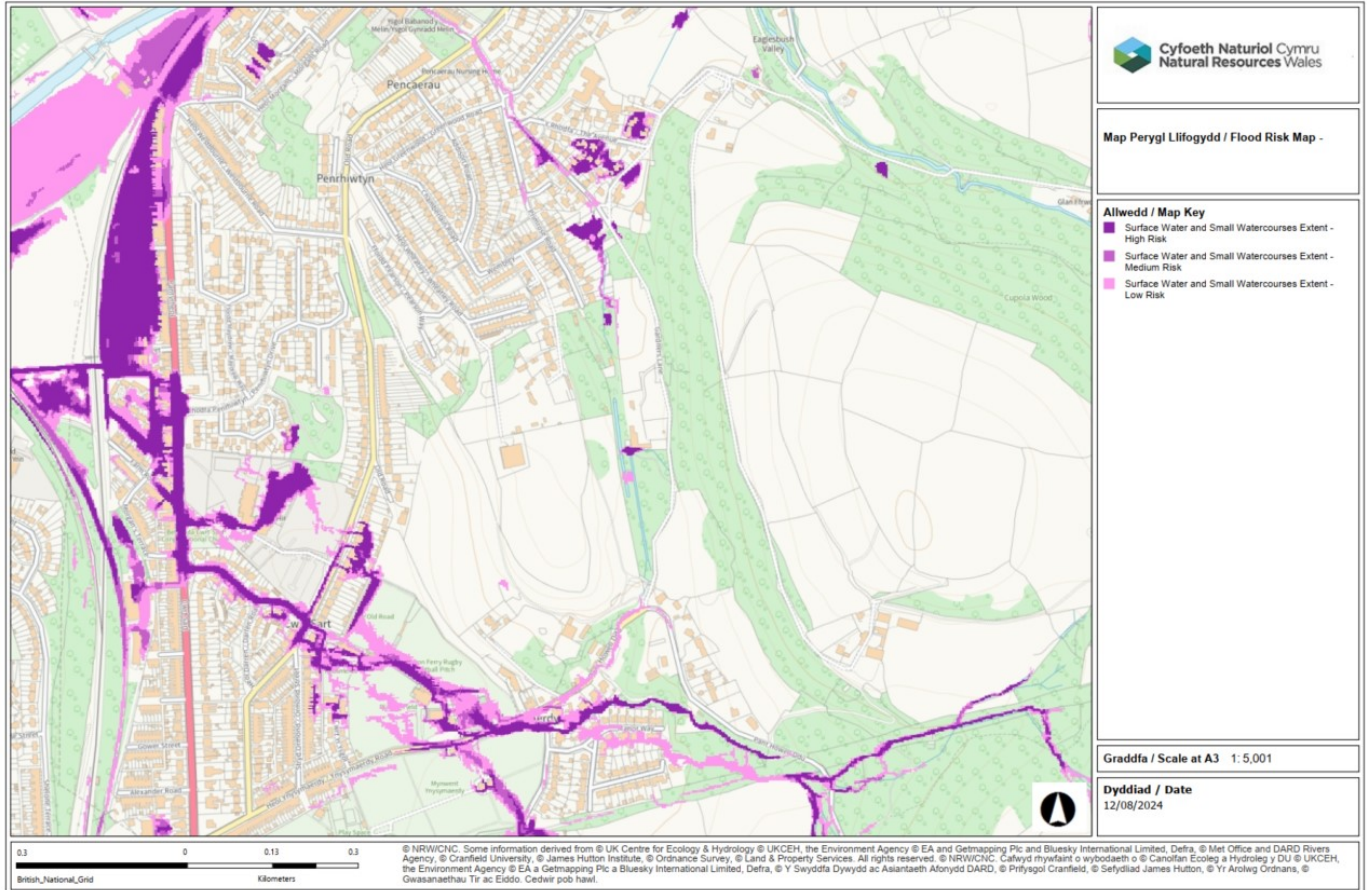


Figure 8-2 - Natural Resources Wales Flood Risk Map - surface water flood risk

A Flood Consequences Assessment (FCA) for the Scheme can be produced in accordance with Technical Advice Note 15 (TAN 15) for submission with a planning application. Although TAN 15 relates to the siting and impact of new development it provides a framework within which risks arising from both river and coastal flooding can be assessed. TAN 15 does not permit flood risk elsewhere to be increased as a result of developing a site. One of the key issues the FCA assesses is whether there is an adverse effect on fluvial flooding as a result of the proposed improvements through the construction of the alleviation scheme which in effect is reducing the amount of water being stored on the floodplain.

The modelling assessment with scheme has demonstrated that the consequences of flooding of the proposed scheme are acceptable and that the flood risk can be managed, and this has been accepted by NRW. In addition, the scheme will reduce the flood risk to the people and both residential and commercial properties of Briton Ferry.

8.2 Water Quality

Construction

The proposed works will require an Ordinary Watercourse Consent, which will be obtained prior to construction activities commencing.

Despite the beneficial long-term effect of this flood alleviation scheme, construction activities involving ground disturbance have the potential to adversely impact water resources in terms of both quantity and quality. During construction there is potential for adverse effects on surface water quality through the potential release of contaminants.

Any development activity in proximity to existing or proposed drainage channels has the potential to impact surface water via the following mechanisms:

- Release of suspended solids into the drainage network, together with any associated contaminants absorbed to the particles;
- Release of contaminated groundwater pumped from dewatered excavations into adjacent drainage channels; and
- Sudden release of 'slugs' of free hydrocarbon products and/or other contaminants within drains or services encountered by construction activities.

8.3 Mitigation

The appointed contractor will be asked to prepare a Work Method Statement along with a Construction Environmental Management Plan (CEMP), which will be submitted to the Local Authority that will incorporate standard pollution prevention measures such as;

- Minimising the potential of runoff by minimising the area over which materials are stockpiled;
- Covering/sealing exposed soil/spoil to reduce silt runoff;
- Preventing spoil from being stockpiled for prolonged periods;
- Controlling carefully the use of cement and concrete;
- Provision of measures to control potentially contaminated surface water runoff from construction activities;
- Provision for the proper storage and handling of all on-site chemicals, fuel and oil, for example away from watercourses and drains with adequate hardstanding and bunding to contain accidental spillage/leakages entering controlled waters;
- Ensuring that appropriate consents/licences are obtained in accordance with relevant legislation.

With the adoption of the mitigation measures listed above, the Scheme is unlikely to have any significant effects on water quality.



9. Waste & Ground Conditions

9.1 Baseline Conditions

A generic quantitative risk assessment (GQRA) has been undertaken with reference to the site-specific data obtained as part of the March 2022 ground investigation. An assessment of risk has been undertaken using precautionary Generic Assessment Criteria (GAC), that represent minimal or tolerable risk, relevant to the Potential Contaminant Linkages (PCLs). Based on identified on-site and off-site human receptors under the current and proposed land use soil data have been screened against GAC deemed protective of a public open space (residential) land use.

Two exceedances of the GAC were identified which were noted as Lead within GBBH05 at 1m, and Aromatic TPH within GBH03 at 0.5m.

Visual observations of potential contamination were identified along the proposed route for the works during the 2022 site investigation, with the report also highlighting historical and current potentially contaminative activities on-site, and off-site sources that could migrate within the site. Multiple areas of made ground have been highlighted including the construction area of the existing culvert, and the south-western boundary of the Ysgol Carreg Hir site which is discussed below. Due to close vicinity with the highway, there are risks of exhaust contaminants from road traffic and a range of organic or inorganic contaminants within the shallow soils of the playing fields. Off-site sources include the unknown provenance associated with nearby construction, the proximity to the cemetery, and surface water runoff from the road network and playing fields. Visual observations of potential contamination comprised of fine to coarse gravel, rare fine to medium coal ash gravel, varying amounts of cobble content of slag from rare to low. They also include low cobble content of slag and fine to coarse ash and slag gravel in multiple boreholes between 0.15 and 0.8m. There was no olfactory evidence of contamination reported from the site investigation. Volatile organic compounds (VOCs) with the largest value being detected within GBBH03 between 0.07 and 0.12m below ground level, a reading of 7.2 parts per million was identified.

At Ysgol Carreg Hir, the proposed route of the culvert will pass through three areas of ground that were remediated with clean landscaped material along the south-western and western boundary of the site. These areas cap pockets of ground containing asbestos fibres and waste material following the demolition of the old school. Made Ground and positive asbestos results have been collected in these areas of the site up to 1.0 m below ground level. It has been assumed that the culvert will be installed at a depth greater than these areas in which asbestos was found and below level of the clean capped materials. It is recommended that measures are implemented for the proposed works in accordance with Control of Asbestos Regulations 2012 (CAR2012) and CL:AIRE Definition of Waste Code of Practise (DOWCOP) and general accordance with the contractor's risk assessments and method statements.

Based on the investigation and assessment, the overall contamination risk associated with the site is considered to be low to human health, controlled waters, property and ecological receptors under the current and future end use.

9.2 Potential Significant Effects

9.2.1 Construction

The proposed Scheme may cause physical effects associated with stripping of topsoil, vegetation clearance, earthworks, temporary stockpiling of materials and construction of new infrastructure. There is likely to be a temporary increase in soil erosion with the potential for increased runoff during earthworks, carrying a high sediment load to



affect surface water receptors. However, mitigation measures will be incorporated into the Scheme design and during the construction works and will reduce potential impacts from soil erosion and runoff.

Impacts associated with Land Contamination are therefore anticipated to be temporary and slight adverse which is considered to be not significant.

9.2.2 Operation

Effects associated with Land Contamination

Impacts in relation to physical effects are considered to be mainly related to the construction phase. During operation, there will be limited impacts on soil erosion, ground stability and soil compaction through maintenance operations. Suitable design and subsequent construction works will also minimise physical effects and the Scheme will be operated in accordance with the relevant regulations and Best Practicable Measures. Impacts associated with physical effects are therefore anticipated to be slight beneficial and not significant.

Effects associated with Waste Soils and Soil Reuse

The Scheme may generate waste soils. However, less impact is envisaged during operation in comparison to construction, as material use, and waste soils will be primarily limited to maintenance activities. The Scheme will be operated in accordance with the relevant regulations, best practice guidance and pollution prevention. Impacts associated with physical effects are therefore anticipated to be neutral and not significant.

9.3 Mitigation

Mitigation measures assumed to be incorporated into the construction process include:

- Minimising the area and duration of soil exposure and timely reinstatement of vegetation or hardstanding to prevent soil erosion and reduce temporary effects on soil compaction;
- Stockpile management to reduce soil erosion, windblown dust and surface water run-off;
- Undertaking health and safety risk assessments, method statements and appropriate PPE for the protection of construction workers;
- Implementation of appropriate dust suppression measures to prevent migration of contaminated dust;

If any unknown contamination is discovered during the works, the contractor shall ensure works stop immediately, isolate the affected area or segregate the affected material (if already excavated) if it is safe to do so. Following which a contaminated land specialist will be consulted.



10. Archaeology and Built Heritage

10.1 Baseline Conditions

A Desk Based Assessment (DBA) has been undertaken (ref AtkinsRéalis, August 2024) to assess the archaeological impact on the Scheduled Monument of Ynysmaerdy Railway Incline (GM489), and the registered park and garden of Jersey Park. There is an Historic Park and Garden (Policy SP21/4(b) in the NPTC Local Development Plan, adopted 2016).

In addition to the two designated historic assets above a further six designated historic assets have been identified. These comprise:

- Carreg Hir Standing Stone (GM170), c.325m to the west of the Site;
- Bridge over Ynysmaerdy Incline (23308), located within the incline and within the Scheduled Monument but approximately 60m outside the Site;
- Ynysmaerdy Incline bridge over Pant Howel Ddu (23303), 75m north of the Site;
- Church of St Clement (23306), 461m south-east of the Site;
- Salem Baptist Chapel (23305), 380m south-east of the Site; and
- War Memorial, including revetments and steps (23296), 458m south-east of the Site.

Within the DBA study area, a total of 31 non-designated historic assets are recorded.

Within the area is the line of the Roman Road which follows the same alignment north-south as the modern Neath Road and the Rail Line.

The following non-designated assets are most relevant due to proximity to the Site:

- Ynys Y Maerdy Manor House and Watermill, Neath (GGAT00646w)
- Ynys Y Maerdy Grist Mill (GGAT01967w)
- Old Air Shafts (GGAT07386w)
- Ynysmaerdy Cemetery Chapels, Briton Ferry (GGAT09096w)

Of the 31 above non-designated assets within the Site boundary, all but three, the Roman road, Prehistoric Standing Stone, and medieval Manor, date to the post medieval period and modern period, and are largely associated with mining or transport infrastructure.



10.2 Stakeholder Consultation

A site meeting was arranged between AtkinsRéalis staff, NPT officers and with Will Davies (Inspector of Ancient Monuments and Archaeology, East Wales) Cadw, which took place at Jersey Park on 22 October 2024 at 13.30. A copy of these meeting notes is included in Appendix C.

The key issues discussed and agreed by all parties is summarised below.

Proposed works in Jersey Park

- There is a high likelihood of past disturbance of the Scheduled Monument for services / drainage already present.
- The form and legibility of the historic asset is noted to be a key aspect of the Railway Incline's significance.
- Maintaining the continuous gradient of Incline is preferred to introduction of bank across the scheduled monument. It is suggested that development of a ditched design (the 'flow interception ditch') near to the play park, with a footbridge provided to carry the footpath is used instead of the current proposal.
- Potential for mitigation through sensitive design is noted, such as use of stone cladding, to reduce visual impact.
- It was recommended that an archaeological evaluation of the flow interception ditch which should be undertaken to determine potential for survival of archaeological remains associated with the railway incline. WD is content for this to be provided under a separate Scheduled Monument Consent application to the main scheme and encouraged this to be undertaken in advance of construction to reduce risk of delay due to discovery of significant archaeological remains.
- A trackside building noted to be potentially evident as low banks to the east of the proposed flow interception ditch. Potential for impact on remains of track-side structure was noted. Further desk-based assessment can be undertaken to identify function / date and the design to be revised to avoid impacting on this structure as far as possible.
- The new pipe across area to south of flow interception ditch was noted to have no visual impact on appearance of park or scheduled monument following reinstatement.

Proposed works near Rhodfa Clark/Ynysmaerdy Road

- Proposals for a new ditch at eastern boundary of Jersey Park is noted to affect a very small area within the Scheduled Monument.
- Proposals for reinstatement of incline banks outside Jersey Park proposed to be small-scale localised works. Cadw are content for submission of proposed methodology for these works and approximate locations for SMC purposes. Larger-scale interventions will require defined extents.
- WD noted recent successful use of reinforced coir matting at Offa's Dyke in place of geotextile, enabling suitable grass to grow through matting. WD noted potential for strimming to widen path along Incline outside Jersey Park to widen pathway and reduce potential for rutting which is occurring particularly at pinch points.

Other issues

- The potential for introduction of onsite interpretation about the Incline is noted, although it is recognised that this would require periodic replacement. The potential for community engagement is also noted.
- NPTs Heritage officer (Delyth Lewis) enquired whether improvements to the channel within the formal part of the Jersey Park gardens would be needed. It was confirmed that this was not strictly required for the



proposed scheme, but nevertheless potential for enhancement or widening of stone-lined channel as part of the scheme highlighted could be considered.

- It was also discussed that the existing concrete footbridge to the Jersey Park play area with galvanised pedestrian guardrail was very poor aesthetically. Since the works will likely need to removal handrailing to improve access to contractor machinery used for the construction works, a better quality replacement of handrails and surfacing would be additional mitigation.

Summary

Cadw agree that that Scheme would affect small part of overall scheduled monument and have limited impact on significance of the Railway Incline. Further assessment and provision of a Heritage Impact Statement (HIS) would confirm this.

Cadw's screening response identified need for EIA on heritage grounds. This was the only topic where potential need for EIA has been identified. The limited extent of impact on the scheduled monument was noted by AtkinsRéalis as not resulting in a significant impact on the assets. It was agreed that an EIA screening request be resubmitted and will incorporate feedback received on site 22 October site visit, with a view to recommend that an HIS be provided with the SMC only (and avoid need for EIA).

10.3 Potential Significant Effects

This proposed scheme will have a minor impact upon the designated asset of the Scheduled Monument of Ynysmaerdy Incline (GM489). The scheme would result in a direct physical impact on the Scheduled Monument, resulting in the limited removal of associated archaeological remains within the southern red line boundary, and the reinstatement of eroded banks along the railway within the northern red line boundary. Scheduled Monument Consent is required for all works resulting in ground breaking within the scheduled monument boundary.

The legibility of the incline as a continuous slope, a key aspect of its significance, would be maintained by the Scheme and the visual impact of the works would be mitigated by the use of sympathetic materials and design. There is an opportunity for enhancement on the northern section of the Scheduled Monument there has been degradation of the railway incline due to lack of maintenance of vegetation. This has led to restriction of the path to a narrow track, resulting in deepening of rutting. However this must also be done sympathetically and using agreed methods of working in accordance with stipulations from stakeholders.

Construction will have a direct, physical impact on Jersey Park, the Grade II Historic Park and Garden, and would impact on its setting. However the loss of mature vegetation will have a minimal visual impact and no change in the form or character of the registered park is expected. Further design will include consultation with and inputs from heritage advisors and stakeholders to minimise adverse effects and to explore enhancement opportunities.

The following recommendations from consultation with CADW and as contained in the DBA will be pursued to assist in design and planning:

- Consultation with Cadw and Glamorgan Gwent County Archaeologist;
- Further design development to minimise disturbance to scheduled monument as far as possible;
- Use of sympathetic materials and design to minimise visual impact;
- Take up opportunities to improve the aesthetic of other structures in the area to bring consistency in appearance;
- Sensitive reinstatement of vegetation;
- Preparation of an HIS including full details of design optioneering to support Scheduled Monument Consent (SMC) application in due course.



The amendments to the Scheme as discussed at the site meeting, including a more sensitive design and the introduction of more mitigation and enhancement measures, will reduce the impact of the Scheme on designated heritage assets. Consequently, it is concluded that the Scheme is unlikely to have significant effects on the historic environment.



11. Biodiversity

11.1 Baseline Conditions

The information provided in this section is based on the following sources:

- Ecological Surveys undertaken in 2019 and 2022 in relation to the present Scheme including:
 - An ecological desk study, using the South East Wales Biological Records Centre (SEWBRc) database.
 - A review of available designated sites information was also undertaken within 2km of the site for internally and nationally designated sites and within 1km for locally designated site
 - Bat activity surveys, including manual transects and static detector deployment
 - Dormouse nest tube surveys

11.1.1 Statutory and Non-Statutory Designated Sites

There is one designated site within 2km of the site;

- Earlswood Road Cutting and Ferryboat Inn Quarries Site of Special Scientific Interest (SSSI). This is located approximately 1.5km south-west of the site and designated for geological features and ancient river systems

There are four locally designated sites located within 1km of the site:

- Eaglesbush Valley local nature reserve, located approximately 1km north-east of the site;
- The River Neath is a Sites of Importance for Nature Conservation (SINC) located 1km west of the site;
- There is an ancient semi-natural woodland to the south;
- There is also a restored ancient woodland located within the vicinity of Jersey Park to the south and adjacent to the above.

There are five SINC's within 1km (distance from centre of site in brackets);

- Neath Canal (984m)
- Giant's Grave (899m)
- Shelone Woods (926m)
- Garth Mor (370m)
- The Waun, Cimla (713m)

11.1.2 Habitats

A Phase 1 habitat survey was undertaken in July 2022, this followed a previous Phase 1 survey was undertaken in 2019. Notable floral species and invasive non-native species were recorded within 1km of the Site.



11.1.3 Species

11.1.3.1 Bats

Records of bat species within 1km of the site were identified. The Phase 1 Habitat Survey identified Elm trees located within the rugby and cricket grounds which has potential roost features for bats. The trees on The Incline have features with bat roosting potential and this area of site presents a linear feature with limited lighting / light spill for commuting and foraging bats. Further, the scrub lined fencing offers potential commuting routes with the wider area offering opportunities for foraging. Jersey Park has potential for roosting and commuting and foraging for bats. Therefore, there are areas with isolated pockets of favourable habitat despite the area of the site proposed for works predominantly being urbanised and less favourable to all but light tolerant bats species. While anthropogenic influence on the suitability of the area must be considered, The Incline and the area north-west near the railway have potential for light tolerant bat species. Therefore, the site is considered to have at least **local** importance for bats.

11.1.3.2 Water Vole

Water Vole was identified as part of the desk study. However, the Phase 1 survey revealed no apparent opportunities for burrows or evidence thereof (no field signs such as but not limited to 'gardens', droppings, characteristic feeding evidence, burrows, or runs). There is little connectivity to wider areas and the majority of the site is situated within a highly urbanised setting with few opportunities for foraging or areas for water vole to reside/rest. While it is acknowledged that water vole use a wide variety of foodstuffs, no notable aggregations of the preferred species were found during the survey. Therefore, it is considered that the Site is of negligible importance for water voles.

11.1.3.3 Breeding Birds

The Site has a variety of potential breeding habitat for more common and widespread bird species as well as a variety of foraging opportunities. There are opportunities for the site to be used by small (likely) non-breeding populations and as such the Site is considered to have local importance for birds. Nevertheless, it should be noted that the Site is part of a wider mosaic, particularly with regards to areas surrounding The Incline and where potentially functionally linked to the River Neath.

11.1.3.4 Reptiles

Reptiles within 1km of the site were identified. The majority of the site is considered to have some degree of suitability to support reptiles or amphibians. However, there are few examples of basking or foraging grounds and little in a way of potential or suitable hibernacula. The site has open water channels of culvert suitable for water vole. However, there is little connectivity to wider areas in addition to being in a highly urbanised setting with few opportunities for foraging or areas to reside/rest due to the nature of the culvert. While the variety of foodstuffs consumed by water vole is appreciated, few examples were found in areas with potential.

11.2 Potential Significant Effects

11.2.1 Construction

11.2.1.1 Habitats

There are no designated sites within the site area and none of those identified by the desk study would be affected by the current construction proposals. The development proposals in their current form would not result in the



permanent loss of the habitats within the site boundary. The impact upon scrub, parkland scattered trees, and mixed semi natural woodland trees would have a magnitude of slight negative resulting in a neutral ecological significance of impact at the local level only.

11.2.1.2 Bats

During construction there is potential of effect upon habitats on Site that would reduce the extent of available foraging habitats for bats resulting in a magnitude of slight negative.

Overall, the potential impact on bats would be slight negative in magnitude resulting in a slight adverse ecological significance of impact.

11.2.1.3 Otter

No actual or potential holts or resting Sites were identified on Site at the time of the surveys and as such impacts on such features are not anticipated.

Depending on the construction requirements, direct impacts on otters may occur should they utilise the Site during the works, particularly if there are excavations left open overnight as these could result in trapped or injured animals. There may also be indirect impacts depending on the construction methodologies, particularly in terms of light and noise pollution. However, given the location of the Site within a residential or railway area it is anticipated that this would be carefully managed. As such these construction impacts would be of a slight negative magnitude.

Overall, the potential impact on otters would be slight negative in magnitude resulting in a **neutral** significance of impact. It should be noted that this would increase should active holts be found on site prior to or during the work

11.2.1.4 Breeding and Non-Breeding Birds

There is potential for the construction phase to reduce availability of habitats for both breeding and non-breeding birds resulting in a slight negative magnitude. Clearance of these areas, though likely to be minimal in duration, could also result in direct mortality, injury, or disturbance to birds, particularly if clearance is to be undertaken during the breeding season (late February to early September inclusive, weather dependent).

Indirect impacts are also dependant on the construction methodologies, particularly in terms of noise pollution and disturbance of adjacent retained habitats, and particularly during the breeding season when bird species are more sensitive to indirect impacts. As such these construction impacts would be of a slight negative magnitude.

11.2.1.5 Badger

No actual or potential active setts were identified on Site at the time of the surveys and as such sett impacts are not anticipated.

Depending on the construction requirements, direct impacts on badgers may occur should they utilise the Site during the works, particularly if there are excavations left open overnight as these could result in trapped or injured animals. There may also be indirect impacts depending on the construction methodologies, particularly in terms of light and noise pollution. However, given the location of the site within a residential area and railway area it is anticipated that this would be carefully managed. As such these construction impacts would be of a slight negative magnitude.

Overall, the potential impact on badgers is considered to be slight negative in magnitude resulting in a **neutral** significance of impact. It should be noted that this would increase should active setts be found on Site prior to or during the work.



11.2.1.6 Fish

In channel works could cause impacts to migratory species through noise or vibration and should be restricted to outside the Natural Resources Wales embargo period of October 15th to May 15th (i.e., works permitted between May 15th and October 15th subject to further survey). Therefore, it is considered that the impact would be **negligible** in terms of magnitude.

Indirect construction impacts would be limited to light pollution effects if night works occurred which are currently unanticipated or noise. This would be **negligible** in magnitude as no work requiring artificial lighting are currently considered.

Overall, the potential impact on fish would be **negligible** in magnitude and therefore neutral in terms of significance.

11.2.2 Operation

11.2.2.1 Habitats

The operation phase is not anticipated to have any additional impacts on any of the habitats identified as there would be no significant change in the type or level of Site use.

11.3 Mitigation Measures

11.3.1 Construction

11.3.1.1 General Construction Measures

Potential indirect construction impacts on protected species would largely be mitigated through the implementation of the following measures and governed by the development of specific method statements (with prominence of appropriate best practice for protected species on Site), the production and implementation of a suitable pollution and sediment management plan, and associated toolbox talks to guide Site operations.

While clearance works is currently proposed to be kept to a minimum, best practice would include, but not be limited to:

- A precautionary method of works adopted with clearance following a two-staged approach following full ecological checks with a first cut of vegetation to 150mm (300mm for woody species). Subsequent levels of clearance would follow detailed ecological checks. Arisings would be removed from Site or used to develop habitat piles in agreed retained areas.
- Clearance would be undertaken during seasonally appropriate times that accord with the ecological receptors present on Site e.g. works being undertaken during the active reptile season (April to End of September dependent on weather and temperature) despite the conflict with the nesting bird season as the latter can be mitigated for by ecological checks.
- Removal of trees will adhere to BCT guidance for potential bat roosts.
- All works will be subject to a pre work check by a suitably experienced ecologist for protected species including for nesting birds, otter, water vole, badger, reptile and amphibian, bat, and any other potential or highlighted species (as encapsulated in the site-specific method statement and toolbox talks).
- Works near trees will avoid root protection zones.
- Use of directional and low-level lighting to reduce additional light spill into retained and adjacent habitats.
- Careful consideration of working methodologies to minimise noise and vibration impacts, particularly during more sensitive period such as breeding, hibernation, and migration seasons



- Works during the time of the migratory fish embargo (15th October – 15th April) in close proximity to the water bodies will be restricted unless agreed with the county ecologist.
- Closure or covering of any excavations overnight to prevent trapping or injuring animals. Where this is not possible, excavations should be fenced off and a means of escape provided.
- Restrictions on night-time working particularly within proximity to trees. Careful placement of site compounds, storage, lay down areas etc. to ensure connectivity for protected species is maintained where possible and use of noise barrier fencing to reduce noise impacts within retained habitats
- Use of secure and clearly identified barrier fencing to prevent accidental encroachment into retained/adjacent areas
- Clear identification of access routes into and through the construction site, maximising the use of existing access roads and other hard standing areas already present.
- Implementation of appropriate material and waste management plans including contingency and emergency measures and avoidance of re-fuelling and parking of vehicles close to watercourses wherever possible
- Use of dust suppression measures as and when appropriate and provision of spill kits close to high-risk areas for rapid deployment in the event of a pollution event.
- Involvement of an Ecological/Environmental Clerk of Works during clearance and construction works to identify and address other risks as and when they arise.

11.3.1.2 Habitats

No direct impacts have been identified on the designated sites and therefore mitigation measures would not be required.

11.3.1.3 INNS

An Invasive Non-Native Species Management Plan would be produced to cover the clearance works, construction and post construction periods. This management plan would include appropriate methodologies for vegetation clearance, soil excavation and disposal, and ongoing management during and post construction. The methodologies to be applied would depend on the work required and the level of disturbance associated with these.

There are notable stands of INNS within the site, most notably surrounding the railway and along the railway line itself. A deliberate and specific method statement is recommended to be undertaken by contractors qualified to do so in accordance with Welsh government advice. Wider site works should adhere to specific biosecurity measures to reduce the potential for spread of these species. This would include (but not be limited to); the use of specialist contractors, wheel wash / brush down areas, area specific working, and methods to control the spread via the watercourses. It is recommended that the county ecologist is consulted prior to works with regards to these species.

11.3.1.4 Bats

As no bat roosts have been identified on Site, a European Protected Species licence would currently not be required. However, appropriate measures would still be implemented.

11.3.1.5 Breeding and Non-Breeding Birds

The potential impact resulting from the loss of potential breeding and non-breeding bird habitats, although at present anticipated to be minimal, would be mitigated through the measures proposed.

Ideally, vegetation clearance would take place outside the bird nesting season (late February to early September inclusive, weather dependent). However, clearance works need to consider the sensitivity of other species and the overall construction programme, therefore a staged approach is to be taken in relation to the higher risk habitats. This approach would follow the procedure recommended for reptile clearance incorporating a nesting bird check



(including ground nesting birds). Here, the first cut of vegetation would be to no less than 150mm following ecological checks and under a full ecological watching brief, with all arisings removed. The second cut of these areas would take place again under a full ecological watching brief.

Should breeding birds be present, a minimum no-works buffer of 10m radius (species dependent) should be established around the nest location. This buffer should be kept in place until such time as the young have fledged, and the nest has been confirmed as inactive by a suitably experienced ecologist.

11.3.2 Operation

Due to the nature of the works little operational impacts are anticipated.

11.3.3 Biodiversity Opportunities for Ecological Enhancements

Implementation of ecologically sensitive management regimes should be applied where possible to provide ecological enhancement during this phase. This is of particular note in The Incline which has the potential as a good ecological resource when considered within the context of the wider habitat. Enhancements here could include bat boxes on retained trees (to be monitored by a suitably licenced bat worker) and 2 bird boxes suitable for tit species for both enhancement and to limit the use of bat boxes by these species.

- Retained amenity grassland habitats could be enhanced for ecological purposes, if possible, through a reduction in the management frequency and implementation of more ecologically sensitive management techniques, such as: Infrequent cutting regimes using low ground pressure machines and removal of arisings.
- Cutting regimes designed to leave a taller sward and timed to encourage natural wildflower establishment, allowing the setting of seed.
- Turf removal to create bare areas permitted to naturally recolonise from the local seed bank, with only light grass seeding where necessary to accelerate cover.

11.4 Scope of Assessment

The proposed Flood Alleviation Scheme is not considered to be EIA development in regard to likely ecological impacts.

An Ecological Impact Assessment (EcIA) has been undertaken to assess the impact of the proposals on the Site's biodiversity during construction and operation. Measures will be detailed to avoid and minimise adverse ecological effects, and habitat compensation/creation will be proposed with the aim of increasing the Site's biodiversity post-construction and throughout its operational life

The EcIA has detailed mitigation measures to be undertaken to both protect habitats and species and comply with nature conservation legislation. It is considered that with the implementation of mitigation measures, the proposed flood alleviation scheme would not result in significant residual impacts on biodiversity.



12. Conclusions and Recommendations

The report provides information to support the request for a Screening Opinion from NPTC, under Regulation 6 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, as to the potential need for an Environmental Impact Assessment (EIA) for the flood alleviations works at Grandison Brook.

The assessments provided in sections 5-11 provide a thorough evaluation of the potential impacts of the Scheme, concluding that following the implementation of the identified mitigation measures, the 'residual' environmental effects of the Scheme would not be significant.

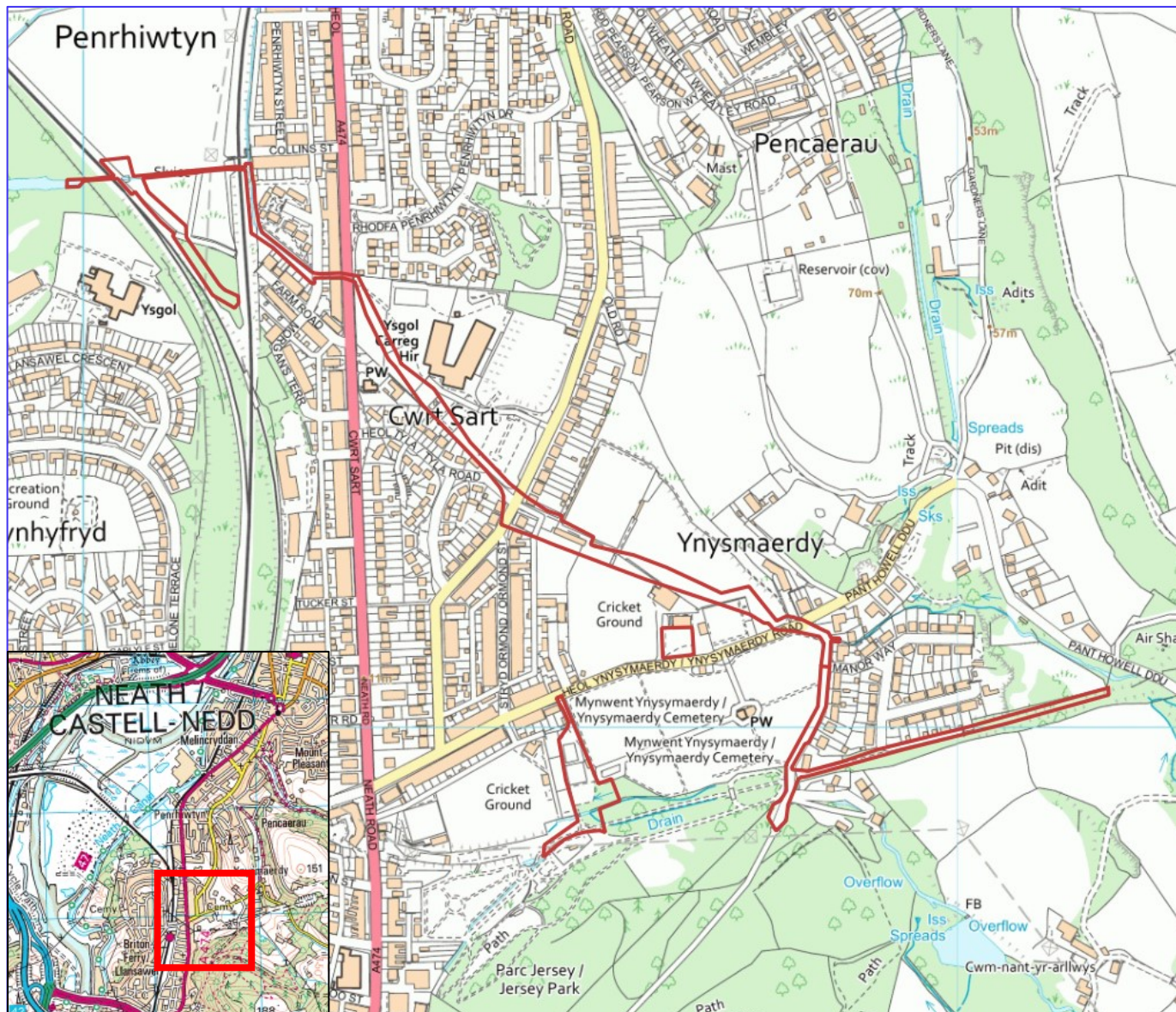
It is respectfully requested that NPTC, provides an EIA screening opinion on the potential environmental impacts of the Scheme.



APPENDICES

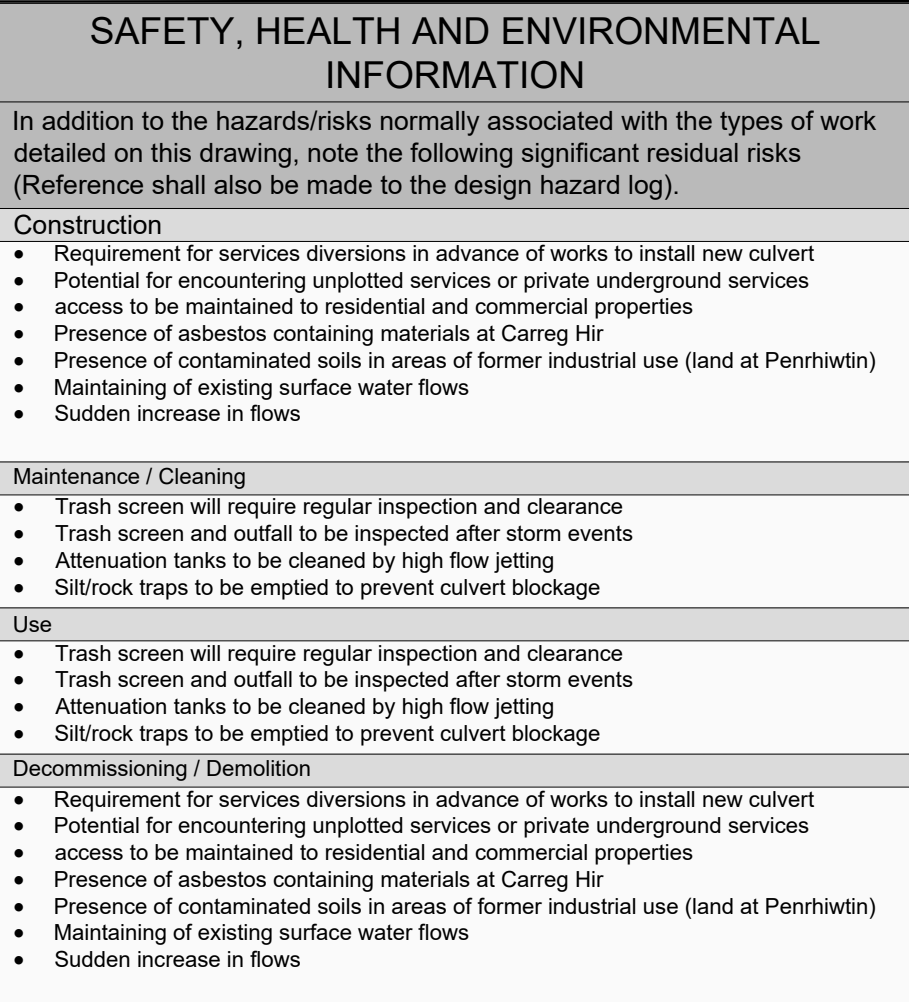


Appendix A. Location Plan



Appendix B. Proposed Scheme Overview







1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS OTHERWISE NOTED.

- - - - Neath Port Talbot Borough Council - Drainage
 ■ Neath Port Talbot Borough Council - Gully
 - - - - Dwr Cymru Welsh Water - Sewerage
 - - - - Dwr Cymru Welsh Water - Water

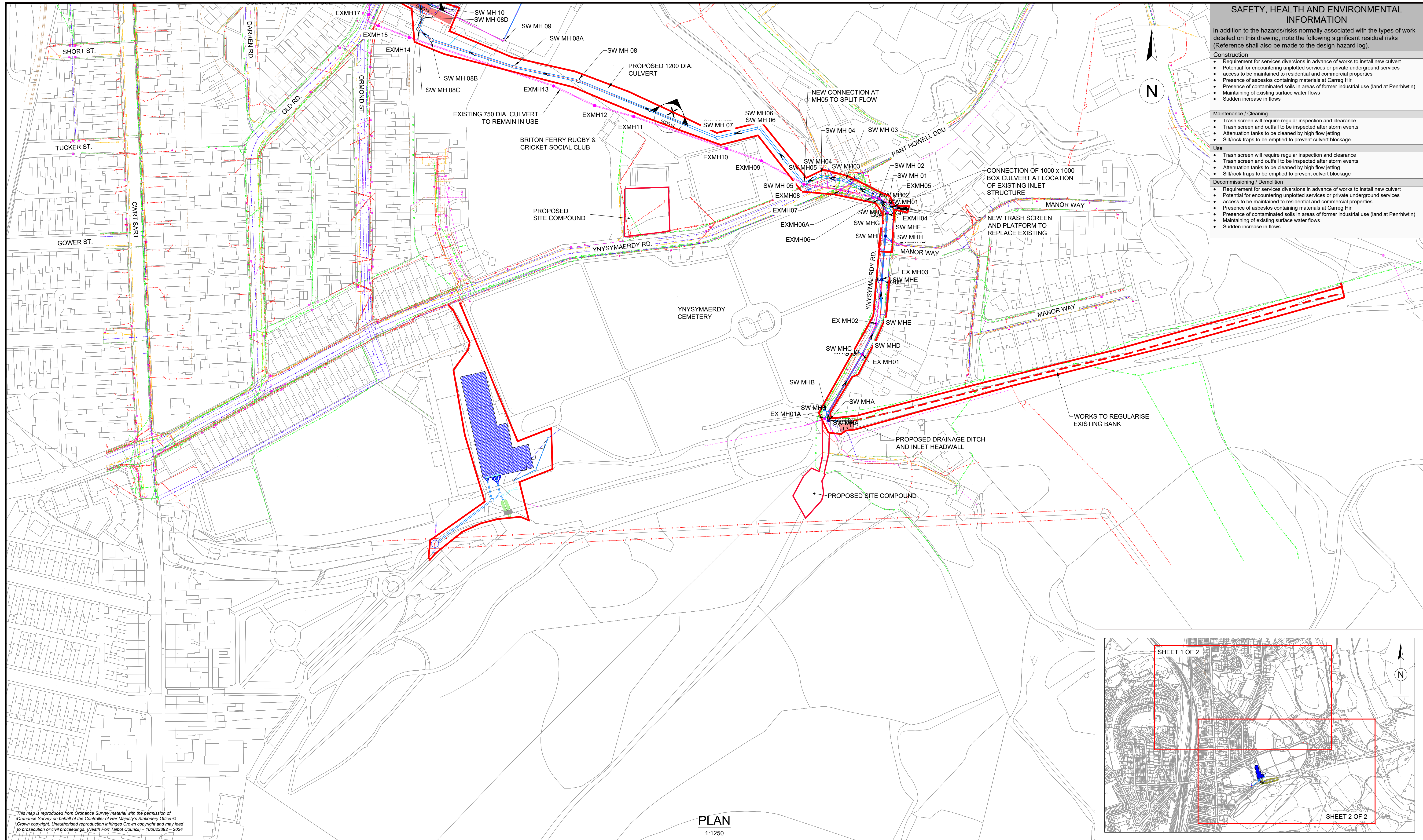
PLANNING BOUNDARY, BASED
ON SITE ACCESS ROUTES AND
SITE COMPOUND

Description							
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	
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Drawing Suitability		Status		Project Title	
WORK IN PROGRESS		S0		GRANDISON BROOK	
 <p>SNC • LAVALIN ATKINS</p> <p>Member of the SNC-Lavalin Group Copyright © SNC Lavalin (2019)</p>		<p>West Glamorgan House 12 Orchard Street Swansea West Glamorgan SA1 5AD Tel: +44 (0)1792 641172 Fax: +44 (0)1792 472019 www.atkinsglobal.com</p>		<p>Drawing Title</p> <p>PROPOSED SCHEME OVERVIEW SHEET 1 OF 2</p>	
Client		Drawing Number		Project	
 <p>NEATH PORT TALBOT COUNTY BOROUGH COUNCIL</p>		<p>NE05_001 - ATK - GEN - SWMWREC - DR - CD - 000001</p>		<p> Originator Volume</p>	
		Location		Type Role Number	
		Original Size: A1		Scale: 1:1250	
		Project Ref. No: 5192793		Sheet: 1 of 2	
				Rev: P01.2	

DO NOT SCALE

0 10 100
Millimetres



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION	
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).	
Construction	
<ul style="list-style-type: none">Requirement for services diversions in advance of works to install new culvertPotential for encountering unplotted services or private underground servicesaccess to be maintained to residential and commercial propertiesPresence of asbestos containing materials at Carreg HirPresence of contaminated soils in areas of former industrial use (land at Penhiwlin)Maintaining of existing surface water flowsSudden increase in flows	
Maintenance / Cleaning	
<ul style="list-style-type: none">Trash screen will require regular inspection and clearanceTrash screen and outfall to be inspected after storm eventsAttenuation tanks to be cleaned by high flow jettingSilt/rock traps to be emptied to prevent culvert blockage	
Use	
<ul style="list-style-type: none">Trash screen will require regular inspection and clearanceTrash screen and outfall to be inspected after storm eventsAttenuation tanks to be cleaned by high flow jettingSilt/rock traps to be emptied to prevent culvert blockage	
Decommissioning / Demolition	
<ul style="list-style-type: none">Requirement for services diversions in advance of works to install new culvertPotential for encountering unplotted services or private underground servicesaccess to be maintained to residential and commercial propertiesPresence of asbestos containing materials at Carreg HirPresence of contaminated soils in areas of former industrial use (land at Penhiwlin)Maintaining of existing surface water flowsSudden increase in flows	

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NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
- ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS OTHERWISE NOTED.

DRAINAGE SERVICES LEGEND



- Neath Port Talbot Borough Council - Drainage
- Neath Port Talbot Borough Council - Gully
- Dwr Cymru Welsh Water - Sewerage
- Dwr Cymru Welsh Water - Water

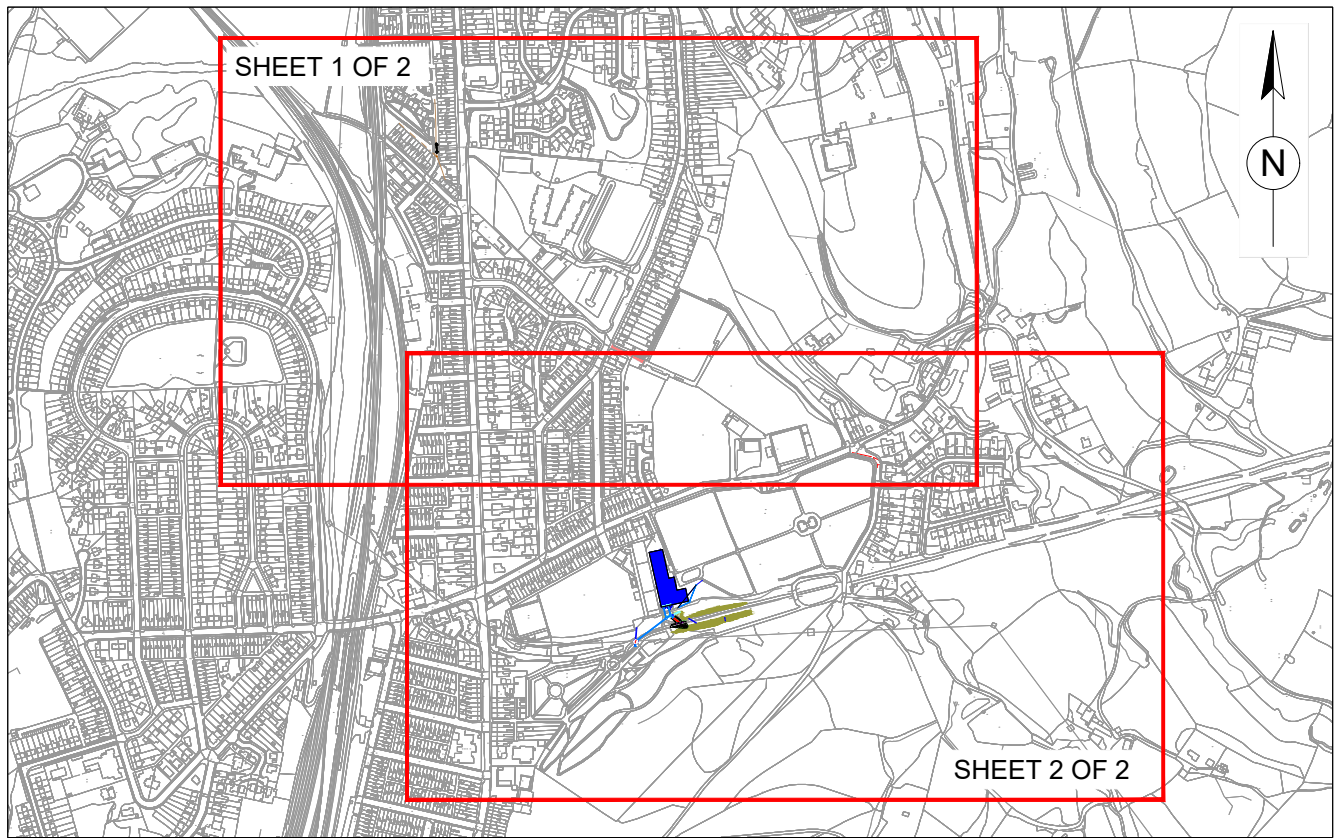
KEY

PLANNING BOUNDARY, BASED ON SITE ACCESS ROUTES AND SITE COMPOUND

PLAN
1:1250

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Drawing Suitability	WORK IN PROGRESS	Status	S0	Project Title	GRANDISON BROOK
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Client  NEATH PORT TALBOT COUNTY BOROUGH COUNCIL		Drawing Number Project NE05_001 - ATK - GEN - SWMWREC - DR - CD - 000002		Drawing Number Project NE05_001 - ATK - GEN - SWMWREC - DR - CD - 000002	
Original Size: A1		Scale: 1:2500		Project Ref. No: 5192793	
		Sheet: 2 of 2		Rev: P01.2	



Appendix C. Meeting with Cadw 22 October 24



MEETING NOTES

Grandison Brook Flood Alleviation Scheme

SUBJECT	MEETING PLACE	DATE AND TIME	MINUTES BY
Heritage consultation	Jersey Park	22 October 2024 at 18:05	SWH
	MEETING NO	PRESENT	REPRESENTING
	1	Rob Morgan (RM) Sandra Honeywell (SH) Will Davies (WD) Adam Al-fahdala (AA) Rhianwen Bailey (RB) Delyth Lewis (DL)	AtkinsRéalis AtkinsRéalis Cadw NPTCBC NPTCBC NPTCBC

Item	Description and Action	Deadline	Responsible
1.	WD to provide written comments on the DBA. Key points included need to provide mapping showing extent of scheduled area overlaid with scheme proposals and inclusion of more historic mapping. WD agreed with assessment that Scheme would affect small part of overall scheduled monument and have limited impact on significance of the Railway Incline.		WD AtkinsRéalis

NEXT MEETING

DISTRIBUTION	All above, Richard Colman – Drainage Manager		
DATE ISSUED	22 October 2024	FILE REF	5192793

NOTE TO RECIPIENTS:
These meeting notes record AtkinsRéalis understanding of the meeting and intended actions arising therefrom. Your agreement that the notes form a true record of the discussion will be assumed unless adverse comments are received in writing within five days of receipt.

MEETING NOTES

Item	Description and Action	Deadline	Responsible
2.	<p>RM provided overview of scheme drivers, constraints and proposals.</p> <p>Form and legibility of asset noted by WD to be key aspects of the Railway Incline's significance. High likelihood of past disturbance of the Scheduled Monument for services / drainage was noted.</p> <p>Maintaining continuous gradient of Incline preferred to introduction of bank across the scheduled monument, requiring development of a ditched design near to the play park, with a footbridge provided to carry the footpath. DL noted that the orientation of the ditch would run perpendicular to alignment of the Incline and highlighted concern over the visual impact of the scheme.</p> <p>Potential for mitigation through sensitive design noted, such as use of stone cladding, to reduce visual impact.</p> <p>WD recommended archaeological evaluation of the flow interception ditch to determine potential for survival of archaeological remains associated with the railway incline. WD content for this to be provided under a separate SMC application to the main scheme and encouraged this to be undertaken in advance of construction to reduce risk of delay due to discovery of significant archaeological remains.</p> <p>Trackside building noted to be evident as low banks to the east of the proposed flow interception ditch. Potential for impact on remains of track-side structure was noted. Further desk-based assessment to be undertaken to ID function / date. Design to be revised to avoid impacting on this structure as far as possible.</p> <p>New pipe across area to south of flow interception ditch noted to have no visual impact on appearance of park or scheduled monument following reinstatement.</p> <p>Potential for enhancement or widening of stone-lined channel as part of the scheme highlighted by DAL.</p>		

MEETING NOTES

Item	Description and Action	Deadline	Responsible
3.	<p>Proposals for new ditch at eastern boundary of Jersey Park (at Incline) noted by WD to affect a very small area within the Scheduled Monument.</p> <p>Proposals for reinstatement of incline banks outside Jersey Park proposed to be small-scale localised works. WD content for submission of proposed methodology for these works and approximate locations for SMC purposes. Larger-scale interventions will require defined extents.</p> <p>WD noted recent successful use of reinforced coir matting at Offa's Dyke in place of geotextile, enabling suitable grass to grow through matting. WD noted potential for strimming to widen path along Incline outside Jersey Park to widen pathway and reduce potential for rutting which is occurring particularly at pinch points.</p>		AtkinsRéalis
4.	<p>Cadw's screening response identified need for EIA on heritage grounds. This was the only topic where potential need for EIA has been identified. Limited extent of impact on the scheduled monument was noted by SH as not resulting in a significant impact on the assets. RB highlighted statutory consultation periods introduced by EIA process. It was noted by all parties that any EIA would replicate the information which will be provided for the HIA and SMC application. EIA screening request to be resubmitted and will incorporate feedback received on site visit, with a view to include the HIA with the SMC only (and avoid need for EIA).</p>		AtkinsRéalis
5.	<p>Potential for introduction of onsite interpretation about the Incline noted, though it is recognised that this would require periodic replacement. Potential for community engagement also noted.</p>		
6.	<p>WD to brief Lisa Fiddes on site visit in relation to registered park and garden. WD happy to be further consulted as the scheme design progresses.</p>		WD
7.	<p>DL enquired whether improvements to the channel within the formal part of the Jersey Park gardens would be needed. RM confirmed not strictly required for the design to work.</p> <p>It was also discussed that the existing concrete footbridge with pedestrian guardrail was very poor aesthetically. Since the works will likely need to removal handrailing a better quality replacement of handrails and surfacing would be additional mitigation.</p>		AtkinsRéalis

AtkinsRéalis



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