



Carbis Bay Hotel St Ives, Cornwall

Ecological Appraisal For Habitat Restoration

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The conclusions and recommendations contained in this document are based upon information gathered by TEP and provided by third parties. Information provided by third parties and referred to herein has not been independently verified by TEP, unless otherwise expressly stated in the document.

Nothing in this report constitutes legal opinion. If legal opinion is required, the advice of a qualified legal professional should be secured.

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Appendix A: Existing Site Layout (LDA Drawing No. 8469_101)

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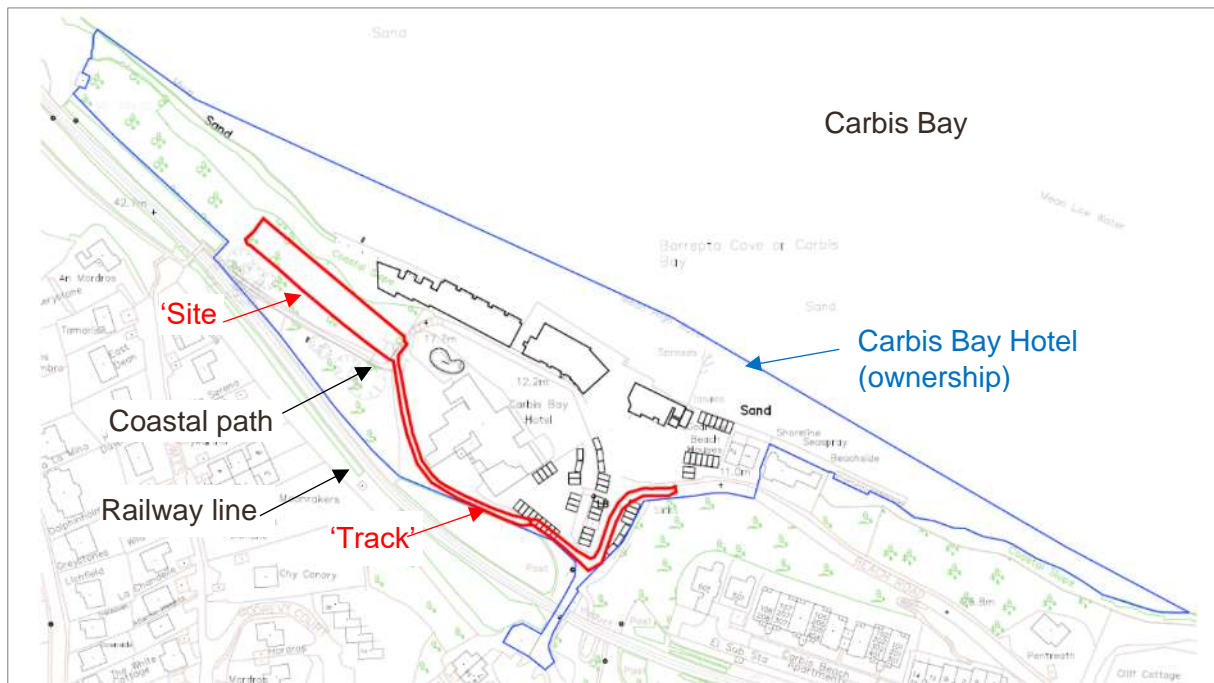
1.0 Introduction

- 1.1 The Environment Partnership (TEP) was commissioned by LDA Design in November 2022 to undertake an Ecological Appraisal to inform an enforcement notice (EN21/00308) applied to an area of land owned by Carbis Bay Hotel, Carbis Bay, St Ives, TR26 2NP (hereafter referred to as 'the site').
- 1.2 The enforcement requires that the site, developed as three holiday lodges without planning consent, be restored to its original state.
- 1.3 This report has the following objectives:
- Identify the site's original habitat composition;
 - Determine any potential ecological effects for restoration requirements; and
 - Advice on replacement and enhancement of habitat, including any opportunities for biodiversity gains or educational benefit.

Site Location

- 1.4 The site is located at the Carbis Bay Hotel, Carbis Bay near St Austell, Cornwall. The location of the site is depicted by the red line shown in Figure 1. The approximate central grid reference of the site is SW 52627 38954.

Figure 1: Site location (extracted from 'Proposed Location Plan', The Blazely Partnership drawing reference 21007 PL02A)



- 1.5 The site is a long, roughly rectangular area of land located on the cliff side west of the main Carbis Bay Hotel complex. It is located below the South West Coast Path and St Erth to St Ives train route and above the beach.

- 1.6 In addition to the rectangular section of the site, the enforcement notice includes a tarmac track that runs around the back of the Carbis Bay Hotel connecting between the hotel car park and the rectangular cliffside area of the site, crossing the South West Coast Path. The track was edged with stone face earth banks above which are lawns and other planting beds of the hotel grounds.
- 1.7 The South West Coast Path was also upgraded along the section from the site down to the beach, with regular steps and a tarmac surface. The sides were formed from stone faced earth walls, topped with timber closeboard fence and planted with ornamental plants.

Proposals

- 1.8 The enforcement notice requires the following:
- ER1 Disconnect and remove from the land all services connected to the buildings as shown in the approximate position marked in green on the plan attached to the notice
 - ER2 Demolish and remove from the land the three buildings as shown in the approximate position marked in green on the attached plan
 - ER3 Demolish and remove from the land the decked area and supporting structures as shown in the approximate position marked hatched purple on the attached plan
 - ER4 Demolish and remove from the land the concrete slabs and pile foundations as shown in the approximate position marked in green on the attached plan
 - ER5 Demolish and remove from the land the concrete retaining wall as shown in the approximate position marked in black on the attached plan
 - ER6 Demolish and remove from the land the fence and gate as shown in the approximate position marked in light blue on the attached plan
 - ER7 Demolish and remove from the land the access road and area of hardstanding as shown in the approximate position marked in yellow on the attached plan
 - ER8 Demolish and remove from the land the stone terrace walls as shown in the approximate position marked in hatched dark blue on the attached plan
 - ER9 Reinststate the land as outlined in red on the attached plan to its original levels, gradients and condition before the breach took place
 - ER10 Remove all materials and debris resulting from compliance with (1) – (9) inclusive above from the land outlined in red on the attached plan
- 1.9 Full compliance with ER1-ER3 and ER10 is proposed. At the time of the site visit, glass balustrade and materials remained on the site, but it is understood these are to be or have recently been removed. The remaining actions of the enforcement notice are to be assessed individually on balance in light of potential impact upon retained ecology, trees and landscape, sustainability concerns and potential opportunities to improve public benefit, notably for education purposes. It is understood a planning application will be made for any element or part element subject to the enforcement that is, on balance, proposed for retention.

2.0 Methods

Desk Study

- 2.1 In line with current best practice (CIEEM, 2016¹, 2017²), information regarding designated sites, notable habitats and existing protected and notable species records of the past decade, within a 1km minimum radius of the site was collated and reviewed to inform this preliminary ecological appraisal.
- 2.2 In brief, key online data sources included Natural England (open-source data viewed via 'Magic Map'³), Cornwall Council interactive maps⁴ and the National Biodiversity Network Atlas⁵. Aerial imagery (Google earth, with timelines, and Bing) was also reviewed.
- 2.3 Statutory designated wildlife sites were searched for as follows (search radius applied for each is indicated in brackets):
- Ramsar sites (10km);
 - National Sites Network (10km), includes Special Areas of Conservation (SAC) and Special Protection Areas (SPA);
 - Site of Special Scientific Interest (SSSI) (5km);
 - National Nature Reserve (NNR) (5km); and
 - Marine Nature Reserve (MNR) (5km);
 - Local Nature Reserves (LNR) (2km).
- 2.4 Non-statutory designated wildlife sites or features were searched for within 1km of the site. Within the context of this site, such sites may include:
- County Wildlife Sites (CWS);
 - Roadside Verge Inventory – Biological Sites;
 - Tree Preservation Orders (TPO).
- 2.5 Notable habitats were searched for within 1km of the site. Notable habitats may include those listed under any of the following:
- Ancient woodland;
 - Habitats of principal importance (HPI) as listed by the requirements of Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006⁶; and
 - Local Biodiversity Action Plan Habitats (LBAP).

¹ CIEEM (2016) Guidelines for Accessing and Using Biodiversity Data. Chartered Institute of Ecology & Environmental Management, Winchester

² CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

³ www.magic.gov.uk

⁴ <https://map.cornwall.gov.uk/website/ccmap/>

⁵ <https://nbnatlas.org/>

⁶ Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

2.6 Pre-existing records for notable species were reviewed from the combined data sources, where found from within approximately 1km of the site. Notable species include those listed under any of the following:

- Protected animal species under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (EPS);
- Protected bird species under Schedule 1 of the Wildlife and Countryside Act 1981, as amended (WCA1);
- Protected animal species under Schedule 5 of the Wildlife and Countryside Act 1981, as amended (WCA5);
- Protected plant species under Schedule 8 of the Wildlife and Countryside Act 1981, as amended (WCA8);
- Invasive non-native plant species under Schedule 9 of the Wildlife and Countryside Act 1981, as amended (WCA9);
- Invasive non-native species under the Invasive Alien Species (Enforcement and Permitting) Order 2019 (IAS);
- Species of principal importance (SPI) as listed by the requirements of S41 of NERC;
- Protection of Badgers Act 1992 (PBA); and
- Red and Amber listed Birds of Conservation Concern (BRd/BAm).

2.7 Pre-existing reports identified from a planning search were also reviewed for relevant ecological information, including:

- PA14-00111 Demolition beach huts construction of 8 new huts
 - Ecological Appraisal Report for Beach Apartments - Cornwall Environmental Consultants Ltd, February 2015
- PA18-01007 Spa and Eco Lodges (Application Refused May 2018)
 - Design and Access Statement
 - Natural England response
 - Delegated officer report
 - Refusal notice
- PA21-02527 Retention and completion of 3 lodges and pathway (retrospective application March 2021 – withdrawn August 2021)
 - Design and Access Statement
 - Arboricultural Impact Assessment
 - Various public comments (objections) including those of Dr Peter Nason (16 Mar 2021) Dr Angus MacDougall (19 Mar 2021) and Mr Rupert Manley.

Habitats and Flora

Habitat Survey

2.8 An extended Phase 1 habitat survey was completed by Graham Roberts MCIEEM and Rachel Roberts CEnv MCIEEM both certified to Level 4 under the Field

Identification Skills Certification⁷. The survey was completed on 17th November 2022. The survey was, except for the seasonal timing, carried out in accordance with the Phase 1 habitat assessment methods (JNCC, 2010⁸) / UK Habitat Classification (UKHab) assessment method⁹ and Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017²).

- 2.9 The method records the habitat types present, within the survey route, based on the JNCC/UKHab descriptions. Plant species were identified in accordance with the New Flora of the British Isles (Stace, 2019¹⁰) and recorded as target notes using the DAFOR¹¹ scale, where relevant.
- 2.10 The timing of the site visit was not considered to present a significant limitation to the ecological appraisal, given the main area has been cleared. The survey was expanded to include off-site habitats adjacent to the site in order to provide context. Adjacent habitats were viewed from accessible locations within the site boundary and accessible areas.

Fauna

- 2.11 The habitat survey included an extended assessment of the habitats present for their potential to support notable or protected wildlife species, as described at paragraph 2.6. Signs indicating the presence of these species were recorded, if evident during the site visit.

Ecological Appraisal

- 2.12 This appraisal follows the published guidelines (CIEEM, 2017, 2018¹² and accepted best practice approach (BS42020:2013¹³).
- 2.13 Important ecological features are identified, ecological impacts are characterised and assessed, and recommendations for appropriate mitigation, compensation and enhancement are made, in accordance with CIEEM guidance.

⁷ A national skills certification scheme operated by Botanical Society of Britain and Ireland. FISC 4 is the competency level recommended for Biodiversity Net Gain (BNG) field assessments

⁸ JNCC (2010) Handbook for Phase 1 Habitat Survey – a technique for environmental audit

⁹ The UK Habitat Classification User Manual Version 1.1 September 2020

¹⁰ Clive Stace (2019) New Flora of the British Isles

¹¹ DAFOR = Dominant, Abundant, Frequent, Occasional & Rare

¹² CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester

¹³ British Standards Institution (2013) BS 42020:2013: Biodiversity — Code of practice for planning and development. BSI Standards Limited, London

3.0 Results

Desk Study

Statutory Wildlife Sites

- 3.1 The Hayle Estuary and Carrach Gladden SSSI lies just over 0.5km to the east. Based upon distances and scale of the site, it is unlikely the unconsented development or enforcement works would result in adverse ecological effects upon the SSSI.
- 3.2 Natural England raised no objection to previous proposals for lodges submitted under planning application in regards potential effects upon statutory nature conservation sites.
- 3.3 Statutory wildlife sites are therefore not considered further this appraisal.

Non-Statutory Wildlife Sites

- 3.4 The locally designated Roadside Verge Inventory Biological site BS72 lies approximately 0.54km to the north-west of the site. The nearest CWS is Bussow Moor & Carn Stabba CWS (P11.9), located approximately 1.8km to the west. The Hayle Dune System CWS (P.K2/7) and the Hayle Estuary CWS (P1.1) are located over 2km to the east of the site.
- 3.5 These locally designated wildlife sites are too distant and disconnected from the project site to be impacted.

Notable and Priority Habitats

- 3.6 The scrub and woodland on the cliff slopes west of the Carbis Bay Hotel were included under a woodland Tree Preservation Order (TPO) - the 'Carbis Bay Hotel, Carbis Bay, St Ives TR26 2NP Tree Preservation Order', made on 2nd March 2021 and confirmed on 20th August 2021. This TPO (ref TPO21/00003) comprises three woodland groups W1-W3 located north of the railway line and west of the main hotel complex. W2 extends around the site immediately to the south, west and north. W1 lies between W2 and the railway line and W3 lies further west of W2. The description for all three woodlands is provided as "All trees of whatever age and species".
- 3.7 Another woodland TPO (ref P/2/10 TPO26) confirmed in 2007 for Land to the east of Wheal Margery, Carbis Bay is situated west of the railway line, to the northwest of TPO21/0003. The single woodland block covered by the TPO is described as 'mixed deciduous/coniferous woodland'.
- 3.8 No ancient woodland was identified within 1km of the site. Several blocks of woodland are identified on Natural England's Priority Habitat Inventory as 'deciduous woodland'. The nearest of these are located south of the railway line to the southeast (approximately 120m) and to the northwest (approximately 150m).

Review of Pre-existing Ecological and Arboricultural Information

PA14/00111

3.9 The 2014 application was not for the site location, but an earlier development for the beach apartments to the north and northeast of the site, on the beachfront and extending up the cliff slope towards the site.

3.10 The 'Ecological Appraisal Report for Beach Apartments' produced by CEC Ltd described this area of the hotel at the time to comprise 'largely beach huts and amenity grassland'. A general description of wider habitats was provided for the cliff slopes in the report at section 2.3 'Habitats':

The habitat of greatest importance is broad-leaved woodland which occurs at the western end of the site. This would qualify as a UK BAP habitat under the Lowland mixed deciduous woodland classification. However, this woodland is dominated by sycamore, which is considered to be non-native to Cornwall, thus significantly reducing its value.

The scrub area is dominated by bramble with the occasional sycamore tree and a cover of clematis. Along the top edge of this habitat, beside the coastal path there are a number of non-native invasives including montbretia and three-cornered garlic.

3.11 A nine-entrance badger sett was located on the lower cliff slope immediately above the old beach huts. Not all entrances were determined to be active. Foraging signs along the cliff slopes immediately surrounding the sett location were also documented. It is understood this sett was closed under licence (Natural England Ref 2015-13857-SPM-WLM) to facilitate the construction of the beachfront apartments.

PA18/01007

3.12 No ecological or arboricultural survey reports were submitted within this application.

3.13 The Design and Access Statement does not include any ecological or tree information. It describes the site as follows:

The northern boundary of the site slopes away down to the top of the new retaining wall behind the lodges. The eastern boundary is demarcated by the coast path. The southern boundary slopes up steeply before being demarcated again by the coast path. The western boundary of the site is distinctly established as the ground slopes away into the scrub.

The site itself is a flat area of vacant land, which is easily accessible from the coast path.

3.14 The application form answers 'no' to questions if trees are within the site or adjacent to the site which influence the development or which might be important as part of the local landscape character.

3.15 The delegated officer's report does not include ecological or arboricultural detail but in the reasons for refusal 1 notes "...it [the proposed development] would encroach onto undeveloped woodland/scrub above the beach...".

PA21-02527

- 3.16 The Design and Access Statement (DAS) describes the site as having been historically levelled and used for a crazy golf area by the hotel in the early 1900s. More recently, the site is described as having been cleared of scrub to facilitate construction of the development to the lower slopes (presumably the enactment of PA14/00111) and as having been 'maintained in a clear state since'.
- 3.17 A photograph of the site dated December 2020 included in the DAS depicts the site as primarily low shrub growth and winter heliotrope. A brash pile does appear to be evident in the photograph at the base of the upper slope to the south. The photograph is represented below for context:



- 3.18 The DAS contained a section on ecology, reproduced below:

As part of the ongoing development work at the hotel an ecology survey was begun in December 2013 with the final version of the report (v4) prepared in 2015. This survey was related to development of the area below the current site but was wide-ranging in taking account of the surrounding ecology. It identified the presence of an annexe badger sett within the current site, which due to potential disturbance from work being carried out the new retaining wall below the sett, was closed under license (Natural England Ref 2015-13857-SPM-WLM) using approved methodologies. The area around the sett (the current application site) has been maintained by the applicant in a cleared state since the sett closure. The report also looked at potential for further fauna.

The report noted that the habitats found were not suitable for reptiles or amphibians. The habitats may contain a suite of common invertebrate species but were not the type of habitats that would be more likely to contain the widest diversity of invertebrates (i.e., not heathland, wetlands etc). With regard to birds the habitat would likely provide for common songbirds, but the small loss of woodland caused by the beach front apartment development would have an insignificant impact due to the larger area of woodland available to the west.

With regard to the woodland habitat, the report identified that it was dominated by non-native sycamore, brambles and some invasive species, which significantly

reduced its value as woodland habitat but would still provide suitable habitat for protected species such as nesting birds, foraging bats and badgers.

The report has not been included with this application as it is not current, but the report does refer to the habitat present on and around our current site.

- 3.19 The report referred to is considered to be the CEC Ecological Appraisal Report for Beachfront Apartments, referenced at paragraphs 3.6 and 3.7 above.
- 3.20 An Arboricultural Impact Assessment (AIA) produced by Evolve Tree Consultancy (May 2021) was submitted with this application which specifically assessed (retrospectively) the impact of construction of the retaining wall upon retained trees.
- 3.21 The AIA describes all trees on the cliff slope above the site (to the south) as sycamore. They were described as being of “*little individual merit, but when considered as a group, as for the TPO, their value is higher.*”
- 3.22 The TPO cited by the AIA is understood to be the ‘Carbis Bay Hotel, Carbis Bay, St Ives TR26 2NP Tree Preservation Order’, made on 2nd March 2021 and confirmed on 20th August 2021. The relevant element of this TPO is W2 comprising ‘all trees of whatever age and species’, which surrounds the site to the north, west and south.
- 3.23 The AIA describes the new retaining wall as having been constructed to stabilise the bank (south of the site), which in other sections along the south edge of the site is described to be similar to a Cornish stone-faced hedgebank. An historic loss of soil in the upper part of the bank in the section where the retaining wall was constructed was determined, based on exposed roots and root growth, to have occurred several months (probably longer) prior to the tree survey.
- 3.24 The retaining wall was determined to have been outside of the Root Protection Area (RPA) of the closest trees. Given the distance and quality of backfill, the AIA determined that the construction of the retaining wall “will have had very little impact on the health, condition or stability of the trees”. No further action was recommended to secure the safe and long-term retention of the trees.
- 3.25 The AIA has been reviewed by TEP’s Arboriculturists and is considered to be accurate and reasonable in its assessment of impacts on the trees.

Appeal Decision APP/D0840/C/21/3284828

- 3.26 In describing the site, the Appeal Decision notes at paragraph 27:

The cliff tops are known as a marine heathland supporting a range of vegetation displaying a variety of colours throughout the year and the Council considers that the appeal site previously blended well with this landscape giving an almost unbroken run of vegetation around the bay. The appeal site formed part of the natural, undeveloped green corridor that stretched as a wild mixture of scrub and trees from the hotel along the higher levels of the coastal slopes in a north westerly direction.

3.27 Paragraphs 41-43 discuss ecology and biodiversity:

41. Paragraph 180 of the Framework states that significant harm to diversity should be avoided or adequately mitigated or compensated for. Policy 23 of the Cornwall Local Plan states that all development takes into account the importance of habitats and considers opportunities for biodiversity enhancement.

42. In response to complaints by third parties that disturbance to wildlife, including badgers had taken place, the appellant submitted a Preliminary Ecological Appraisal¹⁴ which indicates that no evidence had been found of badgers on the site. It does however conclude that the only mitigation required by the development is the replacement of existing lighting that will allow 'light-averse' bats to continue to forage in adjacent areas.

Aerial Imagery

3.28 Aerial imagery reviewed prior to construction and post-construction (post-demolition of the constructed lodges) indicate that the majority of the tree canopy in the vicinity of the site is retained. Mature trees appear to be located only to the south of the site, on the cliff slopes above, with canopy overhanging the site. Dense scrub appears to surround the site to the west and north, except for a small overlap in the northeast corner with the existing hotel infrastructure.

Figure 2: Google Earth pictures from March 2021 (left, pre-construction) and July 2022 (right, post-construction) showing site location and the adjacent tree canopy



Habitat Assessment

Description of Site

3.29 The lodges had been demolished by the time of the November site visit, along with much of the decking on which they constructed. The current site layout is presented at Appendix A. A general view across the site is illustrated at Figure 3.

¹⁴ Appendix RM5 of the appellant's statement – note however the Appeal was addressed by written representations, but no documentation is available via the Council planning website for this appeal; it has not been possible to locate this report.

- 3.30 A raised deck and glass balustrade remained on the north boundary at the time of the site survey (Figure 3), converting to a timber balustrade alongside a small area of tarmac (Figure 4) in the northeast corner.
- 3.31 Concrete blocks partially buried into the top edge of the cliff slope on the north of the site supported the deck and balustrade. Crushed hardcore and rubble is situated between the blocks (Figure 5), although bramble and buddleia was colonising in between the blocks on the north face, and some of the pre-existing landscape planting from the terrace below is establishing on the cliff face in front of the blocks. It is understood the glass balustrade has been removed since the site survey was completed, but the concrete block supports remain.
- 3.32 The tarmac area is raised above the level of the rest of the site but is broadly level with the coastal path where it passes the access point into the site. The tarmac surface covers the access into the site to join the coastal path but the access slope down into the site adjacent to the tarmac platform is formed of crushed hardcore (Figure 3).
- 3.33 Several granite boulders are piled south of the tarmac platform, edging the slope down into the site. More boulders are present at the toe of cliff on the south boundary in the east which are planted with asters with some native forb species also colonising (Figure 6). The site is otherwise roughly levelled and comprises a mix of soil and hardcore. Ephemeral, ruderal and scrub plants are beginning to recolonise particularly along the southwestern edge (Figure 7).
- 3.34 The plants identified during the survey are typical of this type of habitat. Applying the DAFOR ratings, none of the vegetation was recorded as above occasional (O), with most recorded as rare (R) across the extent of the site, as the majority of the site comprised bare ground following demolition of the former lodges. The southwestern edge had the most concentrated areas of vegetation with several uncommon plant species identified such as agrimony, common fumitory and germander speedwell recolonising. The list below details the species list results, although given the timing of the survey, this list is not suggested to be exhaustive:

<i>Bellis perennis</i>	Daisy	O
<i>Buddleja davidii</i>	Buddleia	O
<i>Centranthus ruber</i>	Red valerian	O
<i>Plantago lanceolata</i>	Ribwort plantain	O
<i>Pteridium aquilinum</i>	Bracken	O
<i>Ranunculus repens</i>	Creeping buttercup	O
<i>Rubus fruticosus agg.</i>	Bramble	O
<i>Rumex obtusifolius</i>	Broad-leaved dock	O
<i>Agrimonia eupatoria</i>	Agrimony	R
<i>Anisanthera sterilis</i>	Sterile brome	R
<i>Carex pendula</i>	Pendulous sedge	R
<i>Cirsium vulgare</i>	Spear thistle	R
<i>Epilobium ciliatum</i>	American willowherb	R
<i>Euphorbia helioscopia</i>	Sun spurge	R
<i>Fumaria officinalis</i>	Common fumitory	R
<i>Geranium molle</i>	Dove's-foot cranesbill	R

<i>Matricaria chamomilla</i>	Scented mayweed	R
<i>Poa annua</i>	Annual meadow-grass	R
<i>Potentilla anserina</i>	Silverweed	R
<i>Schedonorus pratensis</i>	Meadow fescue	R
<i>Silene dioica</i>	Red campion	R
<i>Sonchus asper</i>	Prickly sow-thistle	R
<i>Sonchus oleraceus</i>	Smooth sow-thistle	R
<i>Ulex europaeus</i>	Gorse	R
<i>Urtica dioica</i>	Nettle	R
<i>Veronica chamaedrys</i>	Germander speedwell	R

- 3.35 A retaining wall approximately central to the site on the south boundary is a concrete structure with wooden cladding. The wall (Figure 8) is in good condition, although the wooden cladding is partly removed towards the bottom of the wall, exposing the cavities between the cladding and the concrete wall. The rest of the south boundary of the site is formed of what appears to be pre-existing near vertical cliff profile, vegetated with low scrub and herb cover. A group of sycamore trees is situated on the slope above (Figure 7).
- 3.36 The coastal path has been resurfaced into a series of steps passing the east side of the site (Figure 9). The steps have been landscaped with a stone-faced wall on the west side from the site extending down towards the beach. The wall is topped with a timber fence and landscape planting (Figure 10). The planting appears to be establishing well.
- 3.37 A mortared stone wall faces the site entrance at the point the coastal path steps descend to the level of the site. Timber rails are present around the steps above the wall, with a mix of planting atop the wall (Figure 11).
- 3.38 The final area covered by the enforcement notice comprises a tarmac track leading from the coast path opposite the site entrance (Figure 12) around the back of the hotel to the car park. At this point, the south side of the track comprises a steep bank faced with boulders which is establishing with low growing bushy flowers (asters/osteospermums) (Figure 13). Further along, behind the hotel, the track has been edged with a stone-faced wall to both sides (Figure 14), with the height varying according to the adjacent land profile. The stone facing is beginning to colonise with species such as ivy-leaved toadflax and spleenworts. Lawn areas and landscape planting (pre-existing established areas and recent planting) form the majority of land uses adjacent to the track to the south.

Figure 3: General view across site (glass balustrade and deck are understood to have since been removed)



Figure 4: Remaining timber balustrade and tarmac platform in northeast of site (north boundary)



Figure 5: Concrete supports (north boundary)



Figure 6: Boulders at base of cliff face (south boundary, on the east side near access point)



Figure 7: Vegetated cliff face (south boundary)



Figure 8: Retaining wall (south boundary)



Figure 9: Coastal path resurfaced with steps



Figure 10: Stone faced wall topped with timber fence and landscape planting



Figure 11: Mortared stone wall at the point the coastal path steps descend to site level (site access to right, off-photo)



Figure 12: Tarmac track as it approaches the coastal path (view west, coastal path descending via steps)



Figure 13: Boulder faced bank along tarmac track on approach to coastal path from the hotel



Figure 14: Tarmac track to rear of hotel leading to car park in the east



Adjacent Habitats

- 3.39 Habitats adjacent to the site to the south and west, offsite but understood to be within the ownership of the hotel, were also accessed to provide further context to the habitat assessment.
- 3.40 The habitat adjacent to the site in west (Figure 15) is considered to be most indicative of the original form of the site, pre-development. The adjacent cliff face (Figure 16) comprises mainly gorse and bracken with frequent bramble, occasional buddleia, willow and thorn species. Traveller's joy was frequent throughout the scrub layers. Cotoneaster was also noted adjacent to the site on the west edge.
- 3.41 The slope above the site, between the site and the coastal path, is dominated by the group of sycamore trees (Figure 17). Ground flora is more diverse in this location, although dominated by ivy. Montbretia and three-cornered leek, non-native invasive species, were present. The sycamore trees continue up the slope between the coastal path and railway line (Figure 18), but the ground flora becomes more grass dominated on this side.
- 3.42 A species list was collated for the slopes south of the site, from the site to the railway line, although given the timing of the survey this list is not suggested to be exhaustive:

<i>Hedera helix</i>	Ivy	F
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Alium triquetum</i>	Three-cornered leek	O
<i>Asplenium scolopendrium</i>	Hart's-tongue	O
<i>Buddleja davidii</i>	Buddleia	O
<i>Calystegia sepium</i>	Hedge bindweed	O
<i>Clematis vitalba</i>	Traveller's-joy	O
<i>Digitalis purpurea</i>	Foxglove	O
<i>Dryopteris filix-mas</i>	Male-fern	O
<i>Galium mollugo</i>	Wild madder	O
<i>Geranium robertianum</i>	Herb-robert	O
<i>Lonicera periclymenum</i>	Honeysuckle	O
<i>Crocsmia x crocosmiiflora</i>	Montbretia	R
<i>Moss sp.</i>	Moss species	O
<i>Polypodium vulgare</i>	Polypody	O
<i>Crataegus monogyna</i>	Hawthorn	R
<i>Festuca sp.</i>	Fescue species	R
<i>Hypericum androsaemum</i>	Tutsan	R
<i>Lapsana communis</i>	Nipplewort	R
<i>Linaria vulgaris</i>	Common toadflax	R
<i>Poa annua</i>	Annual meadow-grass	R
<i>Poa trivialis</i>	Rough meadow-grass	R
<i>Prunus spinosa</i>	Blackthorn	R
<i>Stachys sylvatica</i>	Hedge woundwort	R

Figure 15: Habitats immediately west of site, dominated by gorse and bracken



Figure 16: Slopes extending west of the site, viewed from the railway bridge



Figure 17: Slope south of site adjacent to coastal path



Figure 18: Slopes above the site (to the south), viewed from the railway bridge



Wider Habitats

- 3.43 During the same site visit, surveyors walked a short section of the coastal path into the Hayle Estuary and Carrack Gladden SSSI, to the east of the hotel. While not an exhaustive survey, this habitat was viewed to provide comparison and context for cliffside habitat in the locality that is unlikely to have been subject to substantial disturbance or modification. It was noted that the scrub cover is broadly similar to that present adjacent to the site in the west, comprising mainly gorse (Figure 19). It lacked sycamore as an oversailing canopy but contained occasional small dense stands of woody scrub (willow, holly) on the steep slopes. Bracken and bramble were still frequent, but buddleia seemed absent from the short section walked. Additional flora noted included species such as columbine, early dog-violet and polypody.

Figure 19: Scrub habitat of the cliff slopes in nearby Hayle Estuary and Carrack Gladden SSSI



Invasive species

- 3.44 There were no Schedule 9 invasive non-native species recorded within the formerly developed platform of the site. However, the slope to the south, rising to the coastal path, contains a high proportion of non-native species including two listed on Schedule 9 montbretia and three-cornered leek. Non-native cotoneaster was noted adjacent to the site on the west edge (within scrub remaining offsite). While not identifiable to species level at the time of survey, it may also be one of several cotoneasters listed on Schedule 9. Winter heliotrope and buddleia, non-natives but not listed on Schedule 9, were also noted in the habitats south, west and north of the site.
- 3.45 In the absence of intervention, it is highly likely these non-native invasive species would readily colonise the site, probably to the detriment of some native species.

Assessment for protected and notable species

- 3.46 The slopes to the south are subject to regular and frequent disturbance from the coastal path, but slopes to the west and north are inaccessible to the public and could therefore offer potential sett construction habitat. The cliff side habitats continue to provide foraging potential. During the survey no evidence of badgers was recorded within or around the site boundary. Although the very dense scrub immediately west of the site was impenetrable to survey and could therefore obscure the presence of setts, there were no residual field signs such as dung, hairs, footprints or feeding remains to suggest badgers may be active in habitats adjacent to the site.
- 3.47 There are no structures on site that would be suitable for roosting bats. The south slope has several sycamore trees and some smaller mature scrub. These were inspected from the ground for potential roost features (PRF). No suitable PRFs were recorded during the site visit. The crevice created on the retaining wall between the cladding and the wall structure is ideal for roosting bats in terms of its materials and dimensions, although the likelihood of this structure being used for roosting is considered to be low. Foraging and commuting opportunities would be considered as good due to its connecting scrub and woodland alongside the site.

- 3.48 While the site is generally north facing, the position within the bay is such that the aspect is not considered to be a significant detriment to reptile species, particularly slow worm. Were reptiles to be present in the cliffside habitats locally, habitat features such as the boulder piles in the east of the site and the rubble between the concrete supports on the north boundary may potentially provide crevices and cavities suitable for reptile shelter and hibernation. The exposed surfaces of these features could offer some basking opportunity (in the case of the rubble between concrete supports, this would be the case with the deck and balustrade removed). Foraging opportunities within the site are limited to the exposure but fringes may be more suitable.
- 3.49 Similarly for nesting birds and invertebrates, the site offers little opportunity in its current bare state, but recolonisation from adjacent habitats would be likely if suitable habitats were to establish within the site.
- 3.50 The site is currently unsuitable for other protected species such as amphibians, otters or dormice.

4.0 Recommendations

Enforcement Actions

- 4.1 ER1-ER3 will be complied with in full. The buildings, services, decking and glass balustrade have or will be completely removed from site. There are no further ecological measures required or recommended.
- 4.2 ER4 requires the demolition and removal of the concrete slabs and pile foundations. No pile foundations were used. The concrete slab supports on the north boundary and the rubble fill between them would ideally be left in situ to avoid further disturbance of adjacent habitats. These structures also provide some wildlife opportunities e.g., for reptiles and invertebrates and, along with the boulders in the east of the site, create exposed surfaces that may become suitable for colonisation by lichens. They will quickly become visually obscured from the coastal path above and beach below by establishing and proposed new vegetation. Visual prominence would be further lessened if additional granite boulders were to be interspersed amongst them.
- 4.3 ER5 requires the demolition of the retaining wall. Proper assessment of the bank stability should be undertaken by an engineer before any work is undertaken. However, based on the information available relating to the retaining wall and the previous AIA, it is considered that removal of the wall without provision of an alternative retaining structure is likely to increase the risk of bank instability, ultimately risking the failure of the trees on the slope to the south of the site. The location of the trees set-back from the slope face, and their rooting pattern (insofar as it can be determined from the photographs in the AIA) does not lend itself to natural ground stabilisation. Photograph 2 of the AIA shows the soil profile with tree roots occupying the upper 500mm, but with few visible roots below this depth. If the wall were to be removed, the lack of cohesion from tree roots at the face of the bank is likely to lead to soil erosion that will eventually undermine the trees. Future tree root growth and the addition of new ground vegetation is unlikely to be able to prevent erosion in the absence of the retaining wall; additional tree planting could help bind the top layer of soil but failure from underneath will be difficult to prevent and the bank would need to be retained in some alternative way.
- 4.4 An alternative approach would be to remove the retaining wall and utilise a shallower graded slope to retain the bank and create a larger area with greater scope for new tree planting that could ultimately act to stabilise it. However, this would potentially be contrary to the requirements of ER9, and the additional tree planting would likely result in further obscuring views of the beach and bay from the coastal path.
- 4.5 ER6 requires the demolition and removal of the fence installed to the west side of the coastal path, where the path travels down the slope between the site and the main hotel complex. The steps to the coastal path are likely to present a safer access down the slope through the hotel than their previous form, but their appearance could be softened by resurfacing or painting. While the fence between the site and the hotel would serve to screen the site from (pre-existing) lighting disturbance, it is understood the fence is considered by the Council to obscure views from the coastal path and it

therefore requires removal. The timber close board fence is therefore proposed for replacement with a lower post and wire fence in this location, which would not result in loss of views.

- 4.6 ER7 requires the demolition and removal of the tarmac access slip and tarmac base in the northeast corner of the site. The tarmac base in the northeast of the site would ideally be retained to avoid further disturbance of habitats and reduce waste needing to go landfill. The visual prominence of the base could be softened by resurfacing or painting. Given its location, this base presents ideal opportunity for enhancement of public amenity and education (see below).
- 4.7 ER7 and ER8 require the demolition and removal of the tarmac access road behind the hotel and the stone terrace walls associated with the access road. However, the access road behind the hotel between the car park and the coastal path is desired to be retained for fire safety reasons. The stone-faced terrace walls are establishing well with vegetation, which although is predominantly non-native includes flowering species that would likely contribute towards available forage for pollinating species. No further ecological measures are recommended for this area.
- 4.8 ER9 requires the site to be restored to its original levels, gradients and condition before the development took place. It is proposed to retain the timber boards and posts adjacent to the tarmac base (proposed for conversion into a rest and viewing area) and reuse the remaining timber boards and posts on the north boundary around the rest of the tarmac base to prevent public access into the remaining area of the site which is to be restored for wildlife.
- 4.9 The majority of the site should be restored to a dense mixed scrub habitat. This is most likely the original habitat loss prior to development. The scrub mix should comprise predominantly gorse but should include a diverse mix of occasional other woody scrub species including hawthorn, hazel, holly and blackthorn.
- 4.10 ER10 requires the removal of all materials and debris resulting from compliance with ER1-ER9. This will be complied with in full. It is noted however, that it may be possible to reuse rubble or similar materials, providing they are clean and inert, in the construction of wildlife shelter features for invertebrates and reptiles. In any such event, natural material or vegetation would be used to ensure any such materials are buried or otherwise visually obscured. Any ability to reuse clean inert materials would help to reduce the volume to be taken offsite to landfill.

Enhancement

Habitats

- 4.11 If possible, subject to availability of appropriate sources, maritime plant species could be incorporated into the planting mix for the habitat creation to encourage a locally appropriate diverse ground flora. Species could include rock samphire *Crithmum maritimum*, rock sea spurrey *Spergularia rupicola*, red fescue *Festuca rubra*, thrift *Armeria maritima*, sea plantain *Plantago maritima*, buck's-horn plantain *P. coronopus* and sea carrot *Daucus carota* sap *gummifer*. Additional species likely to be appropriate to the location that would also be of benefit for pollinators would include

sheepsbit *Jasione montana*, wild strawberry *Fragaria vesca*, betony *Stachys officinalis*, sea campion *Silene uniflora*, bulbous buttercup *Ranunculus bulbosus*, common fumitory *Fumaria officinalis*, cat's-ear *Hypochaeris radicata*, birds-foot trefoil *Lotus corniculatus* and kidney vetch *Anthyllis vulneraria*.

- 4.12 Scrub planting should be denser towards the east of the site. Open pockets could be created for the establishment of grassland to create diverse structure of benefit to wildlife, particularly invertebrates and birds. Placement of boulders may assist in retaining such open pockets and would also provide warm spots for invertebrates and, potentially, reptiles.
- 4.13 Treatment of invasive non-native plant species should be implemented in the land adjacent to the site to prevent future spread. This should include removal of the cotoneaster on the west side and treatment or removal of the Montbretia and three-cornered leek on the slope to the south. Any removal methods or treatment programme should avoid significant excavation in tree root areas; localised hand dig and herbicide treatments are likely to be acceptable. A non-native invasive species management plan should be produced by a specialist contractor experienced with treatment of Schedule 9 invasive species.
- 4.14 If practical, reduction in the amount of buddleia in the habitats to the west of the site would also deliver benefit in the long-term. While buddleia can offer a forage source for some insects, the range of insects able to take advantage of this source is generally limited and flowering times are generally short. Reduction, or at least prevention of further establishment by buddleia will assist a more diverse range of flora to establish, creating more accessible and more prolonged forage sources for pollinators.

Wildlife

- 4.15 If the retaining wall is to be retained, it could be converted into a large 'bug hotel' by covering the exposed face of the wall with a range of habitat features offering shelter to a range of invertebrate species. Additional boulders could be placed at the base of the wall to visually soften its appearance and blend it with the adjacent slopes. The boulders would create further wildlife opportunity and exposed rock surfaces potentially suitable for colonisation by lichens.
- 4.16 A bat box could be installed in a suitable location onto one of the sycamore trees adjacent to the site. Bird nest boxes could also be installed into trees on the south slope. Models suitable for scrub nesting species such as wren could be installed onto posts while woody scrub establishes.

Public Amenity and Education

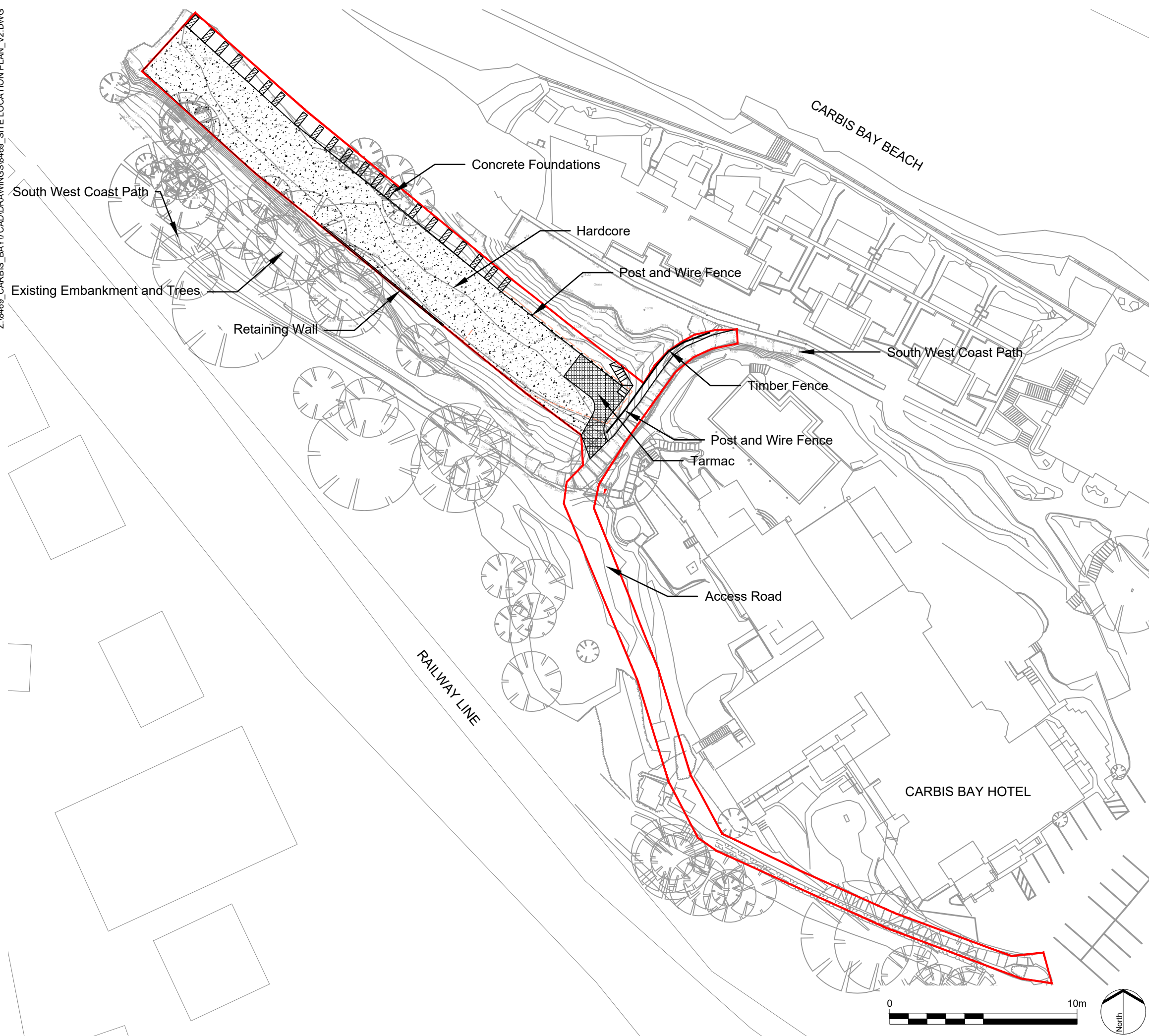
- 4.17 The tarmac base would ideally be retained and converted into a public viewing and rest area. It's location is optimal for views over the bay and there are limited benches along this section of the coastal path. Interpretation panels could be installed alongside seating with explanations of the marine wildlife seen in the bay and of the native flora and fauna commonly associated with the cliffside habitats.

- 4.18 The area could be further enhanced with the installation of bee posts or bug hotels and creation of a flower rich area of grassland that would attract pollinators. The flower rich grassland would grade naturalistically into the scrubber habitat restored across the rest of the site.
- 4.19 Any lighting installed in the location of the viewing area or along the adjacent section of the coastal path should be LED in the warm white spectrum (2700K or below) and should be installed with motion sensors and timers (no longer than 2 minutes, preferably less). This would reduce new light intrusion into the restored site and surrounding tree and scrub canopies.

Appendix A

Existing Site Layout (LDA Drawing No. 8469_101)

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LEGEND

— Redline Boundary

REV.	DESCRIPTION	APP. DATE
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LDĀDESIGN

PROJECT TITLE
Land at Carbis Bay Hotel

DRAWING TITLE
**Site Layout Plan
 Existing**

ISSUED BY	Exeter	T: 01392 260 430
DATE	09.02.2023	DRAWN JP
SCALE@A3	1:200	CHECKED KB
STATUS	Planning	APPROVED ES

DWG. NO 8469_101

No dimensions are to be scaled from this drawing.
 All dimensions are to be checked on site.
 Area measurements for indicative purposes only.

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Sources Ordnance Survey



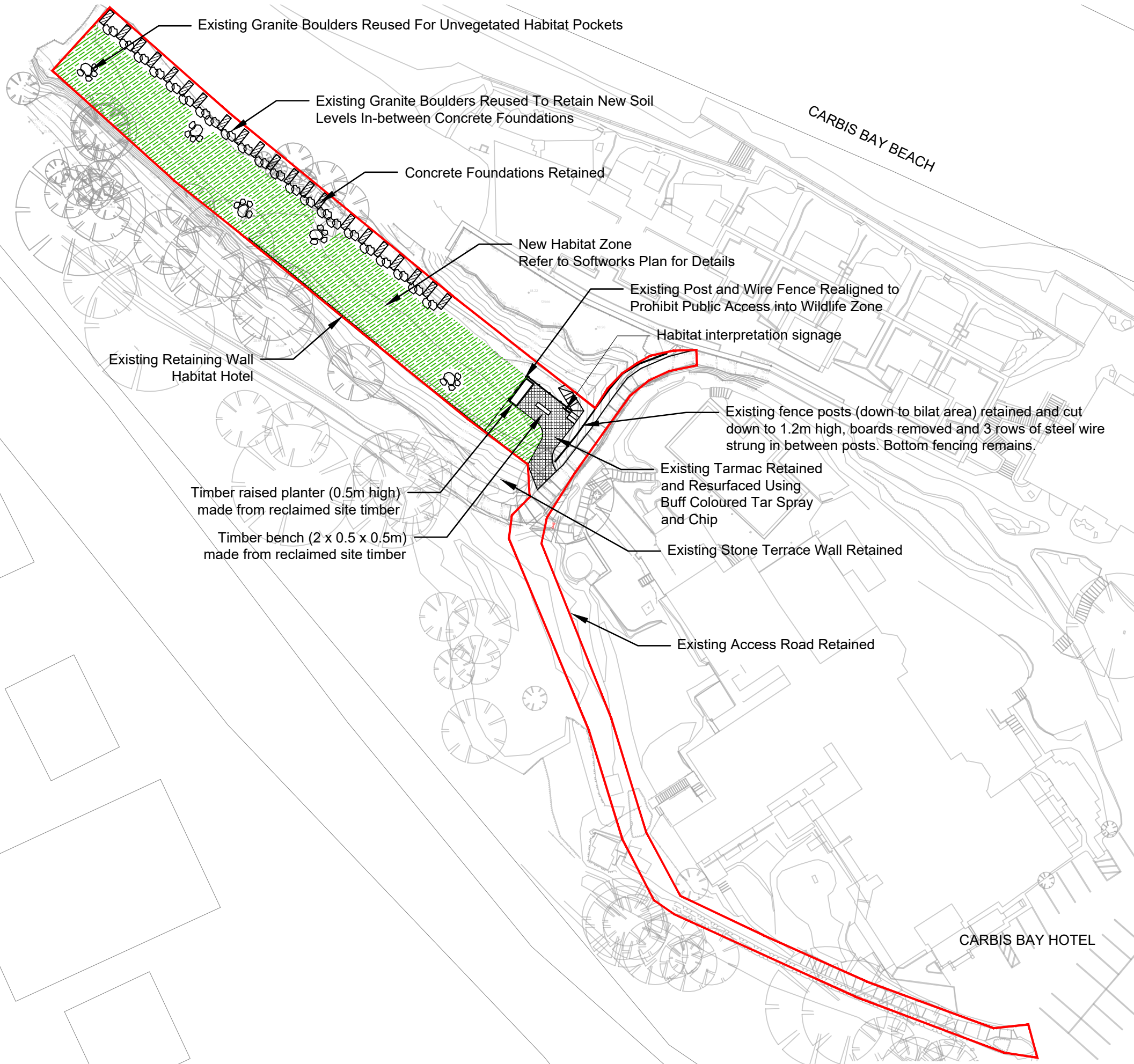
Appendix B

Proposed Site Layout (LDA Drawing No. 8469_102)

Z:\18469_CARBIS_BAY\7CAD\DRAWINGS\8469_SITE_LAYOUT_PLAN_PROPOSED_V2.DWG

LEGEND

— Redline Boundary



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No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site.
Area measurements for indicative purposes only.

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Sources Ordnance Survey





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