

A477 TRUNK ROAD ST. CLEARS TO RED ROSES IMPROVEMENT

ARCHAEOLOGICAL DESK BASED ASSESSMENT
2005



Report No. 2005/110

Report Prepared for:
WS ATKINS

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By

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As part of our desire to provide a quality service we would welcome any comments you may
have on the content or presentation of this report

A477 ST. CLEARS TO RED ROSES ROAD IMPROVEMENT SCHEME

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A477 ST. CLEARS TO RED ROSES ROAD IMPROVEMENT SCHEME

1.0 INTRODUCTION

- 1.1 Improvements to the A477 Trunk Road between St. Clears and Red Roses have been under consideration since 1994 as part of a long-term strategy of improvement of the Trunk Road system in Wales.
- 1.2 This desk-based assessment has been prepared by Cambria Archaeology Field Services in response to a request from Atkins to provide an assessment of the likely archaeological implications of the proposed improvements.
- 1.3 An earlier assessment (Evans 2004) was carried out on two favoured routes, but the addition of new routes has necessitated this current assessment and a review of the earlier work.

2. METHODOLOGY

- 2.1 This project is a Stage 2 assessment, as defined in the *Design Manual for Roads and Bridges* (Vol. 11, Section 3, Part 2, Cultural Heritage). It is designed to review the current knowledge of the cultural heritage resource, and the likely impact of the proposed works upon that resource. The assessment conforms to the *Standard and Guidance for Archaeological desk-based Assessments* (Institute of Field Archaeologists, 1999). The assessment consists of an examination of existing written, cartographic, pictorial and technical information in order to assess the character, extent, significance and vulnerability of the archaeological resource within the assessment area. Site visits were made to evaluate the present condition of the identified sites.
- 2.2 This report also has regard to the following guidance procedures:
- Guidance on the Methodology for Multi-Modal Studies* (GOMMMS), published by the Department of Transport (2000),
- Scottish Transport Appraisal Guidance* (STAG) developed by the Scottish Executive.
- 2.3 All of these guidelines are intended to provide a coherent framework for the provision of consistent advice across the range of environmental factors affecting large-scale infrastructure projects. Their use here is intended to produce a joined-up approach to the assessment of the various route options for the proposed improvements.
- 2.4 Because of the large area covered by the numerous route options a corridor 100m wide for each route option (50m either side of the assumed centre line of each route option) was examined in detail.

Documentary research

- 2.5 A large number of sources in various repositories were examined during the course of this assessment. The repositories included:

The regional Sites and Monuments Record (SMR) maintained by Cambria Archaeology, Llandeilo, which as well as containing records on the known archaeological sites within the assessment area also contains an extensive range of primary and secondary sources, such as tithe maps, early Ordnance Survey maps, archaeological reports and other published works. All sites recorded on the county Sites and Monuments Record are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). Sites with statutory protection, Scheduled Ancient Monuments or Listed Buildings are identified.

The National Library of Wales, Aberystwyth, which contains a vast collection of primary and secondary sources, including estate maps, estate records, topographic prints and photographs, antiquarian and early traveller reports and copies of all modern published works.

The Carmarthenshire County Records Offices, Carmarthen, contained good collections of local source material, including estate maps, rentals, leases and local histories.

- 2.6 This report describes the physical environment of the assessment area before summarising the cultural heritage resource and the likely impact of the proposed improvements on that resource. Archaeological sites, features or deposits that require further archaeological investigation to assess their character, extent, significance and vulnerability are identified. Recommendations for mitigation are provided and a gazetteer of archaeological sites is presented in Appendix 1. All primary sources and published material examined during this assessment are given at the end of the report.

Field visits

- 2.7 Substantial amounts of the route option corridors were visited. A corridor approximately 50m either side of the presumed centre lines of each option was examined, within the constraints of land ownership and permissions. The purpose of the fieldwork was:
- To review the current condition of archaeological sites, features and deposits identified during the desk-based element of the project.
 - To identify new archaeological sites, features and deposits, or areas that may contain them.
 - To carry out rapid recording of archaeological sites, features and deposits by photography, site notes and sketch plans.
 - To assess the vulnerability of archaeological sites, features and deposits.

Assessment

- 2.8 The information gathered during the desk-based assessment and the site visits has been used to assess the likely impacts of the various route options on the archaeological resource.
- 2.9 A range of criteria has been used to assess the importance of the archaeological resource, the likely impacts of each route section on that resource, the overall significance of the impact of each route option.
- 2.10 Possible mitigation measures based on the results of the above assessment are given.

Importance

- 2.11 Five categories of archaeological site importance have been recognised in this report, based on those listed in the *Design Manual for Roads and Bridges* (Vol. 11, Section 3, Part 2, Cultural Heritage). The categories are:
- A** - sites of national importance - usually Scheduled Ancient Monuments and listed buildings
 - B** - sites of regional or county importance
 - C** - sites of district or local importance
 - D** - minor sites or sites so badly damaged that too little now remains to justify their inclusion in a higher grade
 - E** - sites about insufficient is known to assign them to a higher grade

Likely impacts

- 2.12 The likely physical impacts of the proposed road on each site will be assessed according to the following criteria:

Total - complete destruction of the site

Very severe - loss of most of the major components of a site

Severe - loss of some of the major components of a site

Medium - loss of some components of a site

Slight - some loss of some minor components of a site

None

Beneficial

- 2.13 An assessment will also be made on the likely non-physical impact of the proposed road on Category A and B sites. This will include factors such as a consideration of changes to the landscape setting and the potential loss of any significant views of, or from the individual sites.

Significance of impact

- 2.14 This has been determined for individual sites by assessing the likely impact against site importance. The overall significance of impact of each route option has been determined by combining the results of the individual sites to assess the overall impact of each route option. The significance of impact criteria are:

LIKELY IMPACTS	SITE IMPORTANCE				
	A	B	C	D	E
Total	Major	Major	Moderate	Minor	Unknown
V Severe	Major	Major	Moderate	Minor	Unknown
Severe	Major	Moderate	Minor	Minor	Unknown
Medium	Moderate	Moderate	Minor	Minor	Unknown
Slight	Moderate	Minor	Minor	Minor	Unknown
None	No Impact	No Impact	No Impact	No Impact	No Impact
Beneficial	Beneficial	Beneficial	Beneficial	Beneficial	Unknown

Suggested minimum mitigation based on significance of impact

- 2.15 Suggested mitigation for each site is based on the results of the Significance of Impact assessment. The level of mitigation will be based on the following criteria:

Major - full or large-scale recording of site will be required

Moderate - some recording of site will be required

Minor - low-level site recording will be required

No Impact - no further action required

Beneficial - some input may be required to ensure benefit is maximised

3.0 THE ASSESSMENT AREA

- 3.1 The assessment area considered in this report covers a larger area than that containing all the proposed route options (Fig. 1), but it is felt that this reflects the somewhat fluid history of the scheme that saw new route options being added during the life of the original assessment (Evans 2004). In this updated report a larger area of 1,834 hectares (4,531 acres) has been studied so that any new or amended routes can be rapidly assessed without the need for further research. For most of the area the assessment boundary is fairly arbitrary, consisting of a line c.250-350m from the proposed road lines. Only the north and northwest sections of the boundary are formed by identifiable features - the present A40 and the mainline railway respectively.
- 3.2 All sites within the assessment area are included in Appendix One, but only those sites that lie within 50m either side of the assumed centre lines of the proposed route options are presented in detail in the tables below. Some sites that are located more than 50m from the proposed routes, may still have parts that fall within the 50m buffers, therefore, some sites that fall within 100m either side of the route options may be included to allow for any minor variation from the proposed route options.
- 3.3 The landscape within the assessment area varies with an open rural landscape in the west, steeply sided wooded valley slopes, particularly the Afon Hydfron valley in the central section, and the flatter low lying areas in the east where the present road follows the southern edge of the Afon Taf floodplain east of Llanddowror. The slopes, some of which run alongside part of the road corridor, are mostly under deciduous woodlands or scrubland but there are also some commercial coniferous plantations near the eastern limits of the corridor.
- 3.4 To the south of the present road the ground rises to a plateau, which is incised by steep sided north-south valleys. The plateau is mainly agricultural with the majority of the land laid to pasture for grazing or foraging. The farm holdings in this area are generally relatively large.
- 3.5 North of the road the area contains three distinct landscape sections, the northern one being enclosed farmland, which changes to steep and heavily wooded river and stream valleys – this area includes part of Sir John Perrot's late 16th century Kiffig Deer Park – in the central section, before giving way to open farmland close to the Llanddowror - Tavernspite road.
- 3.6 A recent survey of the Landscapes of Historic Interest in Wales concluded that "The essential character of this historic landscape area has changed very little since the surveys for estate maps of the late 18th century, and tithe maps of c. 1840, were undertaken. Modern dwellings have been constructed, but as these are either dispersed across the landscape replicating the pattern of old established farms, or are grouped in the semi-nucleated settlement of [amongst other places] Llanddowror, they tend to emphasise historic patterns" (Murphy and Ludlow 2000 – HLC area 147).

Proposed route options considered in the current report

- 3.7 A variety of routes have been proposed. Three main route options (routes 4, 5 and 6) are currently being considered. These have been divided into

segments where alternatives or variations to the route. There are currently 20 proposed route option segments.

- 3.8 **Route option 4** (consisting of segments C4, E4, and W4) – Route 4 involves substantial new sections of road to the north of the current A477 from north of Llanddowror through Cnwce and over Brandy Hill to emerge at a new roundabout on the B4314 northwest of Red Roses. This route is c.10km in length.
- 3.9 **Route option 5** (consisting of segments C5, E5, and W5) – Route 5 required a new stretch of road leading south from the present St. Clears roundabout and following the contours of the slopes of the high ground until it rejoins the present road at SN25241345. This route again swings south at SN21401239 and bypasses the south side of Red Roses before rejoining the present road again at SN19971152. This route is c.9.5km in length.
- 3.10 **Route option 6** (consisting of segments E6, C2 or C4, linking to C3 and any of the W options) – This runs from west of Gors Farm on the A40 west of Pwll-Trap southwest through to meet the coaching road, established in 1763, from Llanddowror to Tavernspite east of Brandy Hill. It passes through three distinct landscape sections, the northern one being enclosed farmland, which changes to a hillier landscape with wooded land that slopes steeply into the valley of the river Taf. Crossing this river the route follows a steeply wooded valley, once forming part of Sir John Perrot's late 16th century Kiffig Deer Park, before emerging briefly in open farmland until reaching the Llanddowror-Tavernspite road. The overall length of this route depends on which of the various route option segments are include.
- 3.11 **Route Option Segment C1** (SN2303613754 to SN2511313360) – Route option C1 connects the east end of route option E5 with route Options C4 and C2 via the southern end of E6.1. It essentially follows the route of the minor road running between Bryn Kayos and Tucking Mill.
- 3.12 **Route Option Segment C2** (SN2033012200 to SN2246013590) – Route C2 connects route options W 4.1 and C3 with E6, E 6.1 and E4. It runs across enclosed farmland to the north of the A477.
- 3.13 **Route Option Segment C3** (SN2139012380 to SN2184012890) – Runs across enclosed farmland to connect route options W1 and W5 with part of option C2 at SN2183012880).
- 3.14 **Route Option Segment C4** (SN2058012880 to SN2246013590) – Connects route options W4 and W4.1 with E6 and E6.1 and E4, running across enclosed farmland to the south of the minor road.
- 3.15 **Route Option C5** (SN2138612386 to SN2511013360) – Connects with the southern end of E5 following the line of the A477 westwards to join with the eastern ends of W1 and W5. Alterations to the existing road primarily take in land along the northern edge of the existing road.
- 3.16 **Route Option Segment E4** (SN2741015990 to SN2246313590) – This option starts at St. Clears roundabout, leaving option E5 at SN2660015270 to bypass Llanddowror to the north. It joins the route of option E4.1 at SN2562014720 crossing enclosed farmland to the south of the minor road to join with C4 and C2 via a short stretch of E6.1 at SN23731416.

- 3.17 **Route Option Segment E4.1** (SN2730515940 to SN2372014150) – Runs along the existing A477 before bypassing Llanddowror to the north following the same route as option E4 to connect with the south portion of E6.1 and thence C4 and C2. The route runs between the village and motte PRN5069.
- 3.18 **Route Option Segment E4.2** (SN2741015990 to SN2433014630) – Connects St. Clears roundabout with the southern part of E4 and E4.1, following a similar course to E4.1 but bypassing Llanddowror further to the north to avoid cutting off motte PRN5069 from the village.
- 3.19 **Route Option Segment E5** (SN2741015990 to SN2511013360) – Runs from St. Clears roundabout on the same route as E4 before diverging at SN to bypass Llanddowror to the east and south, then re-joining the A477 to link with option C5.
- 3.20 **Route Option Segment E5.1** (SN2610014929 to SN2594514550) – Connects the southern part of E5 with the northern part of E4 and E4.1
- 3.21 **Route Option Segment E6** (SN2611016700 to SN2246013590) – Links A40 with north ends of C4 and C2
- 3.22 **Route Option Segment E6.1** (SN2611016700 to SN2246013590) – Links A40 with north ends of C4 and C2
- 3.23 **Route Option Segment E6.2** (SN2739015960 to SN2505015750) – Links St. Clears roundabout with central part of E6.1
- 3.24 **Route Option Segment E6.3** (SN2688015860 to SN2717015820) – Links E6.2 with E 4.1 and E4.2
- 3.25 **Route Option Segment E6.4** (SN2500016960 to SN2464015120) – Links A40 with central part of E6.1
- 3.26 **Route Option Segment W1** (SN2010511947 to SN2138612388) – Links north end of W4.2 with south ends of C3 and C5
- 3.27 **Route Option Segment W4** (SN1939911254 to SN2057612875) – Runs from south end of scheme to south end of C4
- 3.28 **Route Option Segment W4.1** (SN1925011020 to SN2057012870) – Runs from south end of scheme to south end of C4
- 3.29 **Route Option Segment W4.2** (SN1925011020 to SN2021012010) – Runs from south end of scheme to link with south end of W1
- 3.30 **Route Option Segment W5** (SN1986011500 to SN2141012390) – Runs from Oldwell to south ends of C5 and C3

4.0 THE ARCHAEOLOGICAL RESOURCE

Prehistoric Archaeology

- 4.1 Much of the following discussion comes from the earlier assessment report (Evans 2004). Bronze Age sites have been identified in the study area in some quantity, including standing stones at Llain y College (PRN 3904) and Parc Newydd (PRN 8046). Eithin Bach (PRN 3878) is marked as a mound on Ordnance Survey Maps and it is thought may well date from the Bronze Age. Two possible barrows (SN 217135 and 218135, PRN 11162) are located at the southern end of a field called Parc Garn (Tithe schedule No. 341 Kiffig), both standing about 1m in height (Weeks and Stenger 1985, 19). The locations of five possible burnt mounds have been identified in the study area, which represent either temporary or more permanent domestic cooking places. Two *hearths* are located on the 2nd edition OS Map XLIV SW northeast of Red Roses, which are probably burnt mounds. These suggest that there are as yet unidentified settlements of this period in the vicinity. The presence of ritual foci in the area is suggested in the tithe map field names 'Parc Maen' (PRN 11166) and 'Park Cerrig' (PRN 11165) that may be the sites of Bronze Age standing stones. An 'urn burial' is believed to have been found at Dol Garn when the turnpike road cut through it (RCHMW 1921, 60), and this is most likely to have been of Bronze Age date.
- 4.2 A number of possible Iron Age enclosure sites, for example the hillfort Castell Pen-y-coed (PRN 3887) and at Carn Isaf (PRN 11753), are located in the study area for route 4. In the study area for route 6, Clog y Fran (PRN 3863), Allt Clog y Fran (PRN 8358) and Woolstone (PRN 9829) are Iron Age hillforts, and Clog y Fran (PRN 10751) is an enclosure of unknown date which may possibly be Iron Age. Ditches and banks of a multivallate promontory fort of probable Iron Age date at Parciau (SN234132, PRN 11784) were identified as cropmarks and parchmarks through aerial photography. An entrance is on the west side, marked by an inturn of the defences (James 1984, 19). The range in terms of size and complexity of defence of the Iron Age hillforts and defended enclosures may either represent a hierarchy of contemporary sites or a succession of settlements through time.

Roman roads

- 4.3 The line of a Roman road crosses the northern end of route option segment E6.4, just south of the present A40. The Roman road is recorded as two linear cropmarks (PRNs 28143 and 33930), one on either side of the proposed route option segment E6.4. Although there is a short gap between the two cropmarks the road was originally continuous. This is part of a Roman road that ran west from the Roman town of *Moridunum* (Carmarthen) to an as yet unidentified location in Pembrokeshire, although it appears to be heading for the coast, possibly St. David's (Driver 2000, 61).

Medieval Landscape and Settlement

- 4.4 The church at Llanddowror is an important early Christian ecclesiastical focus, linked to the cult of St. Teilo which is believed to have flourished during the 9th century, and is thought to have extended along the river valleys of Carmarthenshire (Yates 1973, 58-62). The Pilgrims Stones (PRNs 3908 and 3909), two Class II early medieval inscribed stones, date

from this time (Nash-Williams 1950, 113: nos. 151 and 152). Whilst there is no direct evidence for the Early Medieval church itself, inscribed stones are often the only surviving evidence for an early ecclesiastical site. Llanddowror churchyard (PRN 49266) lies within 400m of the motte and enclosure at Castell, also known as Llanddowror Castle (PRN 5069). This is a ringwork castle that may have been adapted from an earlier Iron Age enclosure. These two sites may therefore represent two important early medieval sites, with one becoming the elite centre and the other the kin burial ground.

- 4.5 Within the corridors under discussion the historic parish boundary between Laugharne and Llanddowror followed the Afon Hydfron for much of its length. This boundary is likely to have been established early in the medieval period. A medieval trackway, known as the Pilgrim's Way (PRN 12060), is suggested as having run from the rectory until *"it meets on the right or north the Old road from St. Clears to Llanddowror, and shortly afterwards (in about 150 yards) is interrupted by the modern high road from Carmarthen to Hobbs Point. On resuming its course it leads down to an old ford across the brook Hirwaun (a tributary of the Tav River. On the left, just before reaching the ford it bounds a field to the immediate west of the churchyard....After crossing the ford it appears to have traversed the field 'Parc y castell' (its course is still clearly traceable), and leaving the earthwork or mound on its immediate right, joins the existing old road from Llanddowror to Tavernspite"* (Hartwell-Jones, G. in RCAHMW Carmarthen 1917, 82).
- 4.6 The church of St. Teilo, Llanddowror, was entirely rebuilt in 1865 with the exception of the west tower with its southeast stair turret, which probably dates from the 16th century (Salter 1994, 33).
- 4.7 Besides evidence for medieval settlement within Llanddowror itself, medieval settlement has been identified at places such as the motte at Castell (PRN 5069), already referred to. This is described on the tithe map schedule (1845) for the parish of Llanddowror as "No. 143, Park Castell" in 1845. Great and Little Bishop's Court (PRN 13146) and Maes-y-lan, and the site at Dol Garn (PRN 3884) are possible medieval settlement sites, and are also indicative of early enclosure. A possible medieval ecclesiastical site is suggested by the place name Parc Henllan Capel (PRN 3885), although no traces of this appears to have survived on the ground. A significant survival of ridge and furrow cultivation is evidenced at places such as Rugland meadow and Hooks Common.

Post-Medieval Landscape and Settlement

- 4.8 There is much evidence for post-medieval buildings and the layout of the tenant farms and their fields to the north of the St. Clears to Hobbs Point turnpike. Most of the land belonged to the Philipps family of Picton Castle by the 18th century (NLW Picton Maps Vol. 2 and 3), although a map of Rhos-goch dated 1697 show that it was in the possession of the Bowens of Llwyngwair, near Newport, Pembrokeshire, at that time (NLW Llwyngwair 1123). The earliest evidence for an enclosed area was a deer park at Kiffig, constructed by Sir John Perrot in the early 1580s for "the recreation of gentlemen". This was located to the north of Cnwce and north east of Brandy Hill, with its southern edge following a track from Llanddowror to Narberth (NLW Llwyngwair 1123). The land was probably marginal or 'mountain' land in the 16th century (Murphy, unpublished) and the land just south of this on the 1697 plan can be seen to be unenclosed. However

it is stated that depopulation took place when the Park was created and that there were only six tenants remaining in Kiffig by 1602. It is possible however that the tenements were not located within the park itself but in the field to the south of the church (NMR Record Card). The park did not function effectively after Perrot's death in 1592, and the remaining deer were reported killed in 1613. By the mid 18th century all the land within the park had been enclosed, the former presence of the park recalled only by the farm names known collectively as Pale (*ibid.*).

- 4.9 Carmarthenshire has a substantial number of estate maps surviving from the 18th century, and indeed this shows that mapping estates "had become a fashionable practice for the gentry and other landowners" (Evans 1977, 52). A number of estate maps show the areas under consideration, of which the earliest is the 1697 plan of Rhos-Goch (NLW Llwyngwair 1123) already referred to. Rhos-goch was divided into two properties, Fawr and Fach. Rhos-goch Fawr was the residence of William Shewen who died in 1730 (Jones 1987, 169), and may have been the person who commissioned the 1697 drawing. The field layout appears to have altered somewhat in this area since 1697, although this may be simply a reflection of the fact this early plan is only a sketch, and there has been a considerable amount of further enclosure since that time. It is likely that pressure on landholdings did not increase sufficiently until the eighteenth century for the landscape pattern to be fully enclosed, a time by which the deer park had completely disappeared. Digital aerial photographs (Getmapping 200029) show small fields around Rhos-goch, which may be indicators of early enclosure.
- 4.10 Mapping of farms on the Picton Estate on a substantial scale was pioneered by John Butcher who worked on the estate periodically between 1737 and 1763 (Evans 1977, 56), although his work is by no means the earliest. A 1744 estate map of Pen y Llan farm predates the turnpike road (NLW Picton Castle, Maps and Plans 27), showing the river Taf as both estate and parish boundary to the south. The presence of a tucking mill (PRN 15016) is noted on this map, which is now at the junction of the 1827 Turnpike Road (A477) with the road to Laugharne. The Llanddowror manorial map of 1773 and attached schedule (NLW Picton Castle 83, Fig. 6) shows that most of the farms within the parish were part of the Picton estate, and was surveyed by Thomas Lewis (Evans 1977, 57). An early 19th century book of estate maps, with the individual tenant farms located on a key map referring to detailed farm maps (Picton Castle Maps Vol. 2), also survives. The 1773 map of Llanddowror shows the 1763 coach road from St. Clears across Brandy Hill to Tavernspite, but as it dates from before the St. Clears to Hobbs Point Turnpike was built, it shows the parish boundary with Laugharne along its southern edge. The 19th century map shows the turnpike road and the outline of those farms within the parish through which it passes and provides useful evidence for the layout of the farms prior to the tithe maps of Eglwys Cummin (1842) and Llanddowror (1845), to which they can be compared. More detailed maps show the farms themselves at a greater scale, and all buildings within them are shown. This volume of estate maps also has a detailed plan of Llanddowror village. Most of these farms were leased to the tenants under three life terms, which encouraged the tenants to make improvements (Howell 1986, 71), and there is some evidence that this happened. Nineteenth century leases of Picton properties to tenant farmers often included a plan of the property for lease, and this is the case for Llanddowror parish (NLW Picton Castle L9). This has proved useful because they show changes that took place during the 19th century, before

the 6-inch 1st edition ordnance survey maps for the area appeared in 1890.

- 4.11 The 1773 and early 19th century maps show the detailed layout of the farms through which route 6, and much of route 4 passes. These include the farms of Bwlchydomen and Gors (NLW Picton Maps Vols.2 and 3), and early 19th century maps (NLW Picton Maps Vol.3) for the farms of Pentrehowell and Backe, spelt 'Bacca' in the early 19th century (figs 11,14). Selections of these are included in this report.
- 4.12 There is considerably less estate map evidence for the parish of Laugharne, since the properties that bounded the southern border of the parish of Llanddowror were held by a number of different landowners during the 18th century, such as Lord Anglesea, Rev. Powell and Lady Maude, and estate maps for these owners have not been traced.
- 4.13 The tithe maps for the three parishes through which the proposed new routes pass show a number of cottages and buildings which had gone by the time the Ordnance Survey 1st edition maps were published in 1890. A number of buildings, now lost, are recorded in the more recent period. Pennsylvania House (PRN 22359) was a ruin in 1946. The place name 'Pale', common in the southern area, suggests an enclosed area and may relate to Perrot's deer park. Old Pale farmstead (PRN 21599) was a substantial complex and part of the Westmead estate in the early 19th century. Old Pale Cottage II (PRN 21654) is visible into the 20th century, but does not show on the 1974 OS Landranger map. A post-medieval deserted settlement is located at Gors-Fach (PRN 47070), although there are very few details about this site.

Roads During the Post Medieval Era

- 4.14 In the 17th century, the state of Carmarthenshire roads was very bad, but towards the end of the 18th, and into the 19th century, improvements were enacted through the turnpike system (Lloyd 1939, 347-349). This development is likely to have taken place because the gentry, and farmers and merchants, were being hindered in their commercial activities by such poor communications, and they began to invest heavily in schemes to improve them. This led on to more centralized control of road maintenance through the turnpike system, which established "the principle that every person should contribute to the upkeep of roads in proportion to the use which they made of them" (*ibid.* 351), and provided a regular source of income for repairs, rather than the previous haphazard support from the parishes.
- 4.15 There appears to have been a track way between St. Clears, Tavernspite and probably through to Narberth in 1697, which had recently been hedged (NLW Llwyngwair 1123). The 1697 sketch of Rhos-goch does not enable us to be clear about the original route, and there is no indicator of scale. Bowen's 1729 Map of South Wales shows a road and track way leading from St. Clears to Tavernspite (Copy in Dyfed SMR). This road probably followed the medieval route and was almost certainly in very poor condition, local roads having a bad reputation during the 17th century (Lloyd 1939).
- 4.16 The precursor to the A477 was a coach road running through lower St. Clears thence to Llanddowror and up over Brandy Hill to Tavernspite, probably following the traditional route seen on the 1697 plan, and which

may therefore have been predominantly an improvement on the existing road. It survives as a minor road to this day. The road was authorized by Act of Parliament in 1763 to run through "*the County Borough of Carmarthen and St. Clears village to Tavern Spite in the parish of Kiffig at the borders of Pembrokeshire*" (CRO T.T. Box III/1). An 1815 plan of this road survives (CRO T.T./Box V/7), which also included a plan to by-pass Llanddowror. Between 1763 and 1834 this was part of the major coaching route from London to Southwest Wales. This road appears on aerial photographs to follow the contours (RAF 1946, 3204), and the layout of the fields suggests that some enclosure seems to post-date the 1763 road. It does, however, cross earlier trackways and shows that some improvements were carried out in the construction of the coach road.

- 4.17 A new turnpike road between St. Clears and Hobbs Point, Pembrokeshire, following the enclosure of St. Clears commons in 1810 (CRO Cawdor 1/71), was authorized by Acts of Parliament in 1828 and 1833 (CRO T.T./Box III/1). This was 'a new line of road constructed to avoid the steep ascent of Llanddowror Hill to Tavern 'Spytty, on the border of Pembrokeshire, [which] was completed in 1830, and extends from the village of Llanddowror until it joins the road to Milford, considerably south of the former' (Lewis 1844), Thomas Telford having surveyed this new route in 1827 as part of a commission by a Parliamentary select committee into the improvement of communications to Milford Haven. After crossing the Taf with a new bridge at NGR SN 26761552, this route followed the valley of the Afon Taf, and thus meanders in and out of the parishes of Llanddowror and Laugharne, entering the parish of Eglwys Cymmin east of Red Roses, the latter settlement appearing to post-date the turnpike road and to take its name from an inn, which in turn seems to be a corruption in translation of Rhos-Goch, which actually means Red Moor (Jones 1987, 169).
- 4.18 A tollhouse at Red Roses (SN 204117, PRN 21608) is thought to date from 1840-1843 (CRO T.T. Box V/2), and is referred to in the Carmarthenshire Main Trust archives (CRO T.T. Box IV), which suggested that tollhouses on the route would cost £225. The building has been demolished and the site is now occupied by a late 19th century dwelling. The Main Trust archives also suggest that the route may have been built by the engineer McAdam, from whom much of the correspondence relating to the road appears to have been sent to the Main Trust (CRO T.T. Box V/2). Aerial photographs (RAF 1946, 4073) show this road clearly, and how it cut across the earlier field system. Thus whilst enclosure may not have been complete by 1763, it certainly was by 1827. The photographs also show earlier trackways and hint at how this new road disrupted earlier local lines of communication.
- 4.19 A number of surveys and maps of the toll roads themselves survive, some purporting to be by Thomas Telford himself (CRO Dynevor Maps 2/13). The Main Trust's order books include much debate on this new road; this was generally favourable since it ensured that the tolls could still be collected in this part of Carmarthenshire from the bulk of the traffic travelling to Milford Haven and Pembroke, and in October 1827 it was resolved to support "the line of road recommended by Mr. Telford from Hobbs Point near the Pembroke Dock Yard to the confines of Pembroke, and that it was requisite that the road should be continued thence to St. Clears as defined also by Mr. Telford's plan" (CRO T.T. 1). It is likely that this plan is the same as the 1824 one (Dynevor Maps 2/13) since on 14th Jan 1830 it was resolved that "the diversion commence at or near the village of Llandowror along the line marked in Mr. Telford's plan B C D and

X and terminate at or near a spot marked W, where a highway joins leading to Tavernspite". The lengths of road in each parish from the Pembrokeshire border to St. Clears are noted as follows (CRO T.T. Box V/8):

	Miles	Furlong	Pole
Eglwys Cymmin Parish	1	4	28
Landowror Parish	2	4	32
Llaugharne Parish		5	20
St. Clears Parish	1	3	0

- 4.20 The bridge just south of St. Clears, Pont Newydd (PRN 15068), a Listed Building, is part of the Telford designed road as are other elements of the roadside furniture such as the milestones (PRNs 54894, 54895, 54898, 54911, 54914, 54932, 55312), making them of significant archaeological and historical value. Three of the milestones are Listed (PRNs 54895, 54914, 55312).
- 4.21 A number of small roadside quarries are present on the north side of the road to the west of Llanddowror, which were probably used to supply road stone during construction of the Telford designed road. Although these have not been recorded individually they are an integral part of the present road's landscape.

The archaeological resource within 50m of the assumed centre lines of the route options

- 4.22 A total of 189 previously recorded sites within the assessment area were contained in the SMR. The sites cover a range of periods from the prehistoric to modern, and include a wide variety of site types. Only the sites that are situated within 50m of the presumed centre lines of the proposed routes were assessed during the fieldwork and included in the following tables. The archaeological importance of the sites has been assessed by route option segments.

Route Option Segment C1 (SN2303613754 to SN2511313360)

PRN	NGR	SITE TYPE	IMPORTANCE
15016	SN24951331	Mill building	C
15028	SN25051332	Bridge	C
54913	SN2303013816	Cottage	C

Route Option Segment C2 (SN2033012200 to SN2246013590)

PRN	NGR	SITE TYPE	IMPORTANCE
21605	SN20601231	Farmstead site	C

Route Option Segment C3 (SN2139012380 to SN2184012890)

PRN	NGR	SITE TYPE	IMPORTANCE
21612	SN21421238	Cottage site?	E

Route Option Segment C4 (SN2058012880 to SN2246013590)

PRN	NGR	SITE TYPE	IMPORTANCE
21614	SN22051353	Dwelling?	E

22357	SN22261358	Cottage site?	E
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Route Option Segment C5 (SN2138612386 to SN2511013360)

PRN	NGR	SITE TYPE	IMPORTANCE
3886	SN24221316	Burnt mound	E
10072	SN23811304	Bridge	D
11166	SN247131	Standing stone	E
15016	SN24951331	Fulling mill	C
15017	SN23651299	Chapel	C
15028	SN25051332	Bridge	C
20930	SN23571305	Mill site	E
21612	SN21421238	Cottage site	E
21619	SN22841242	Cottage site	E
21627	SN23561302	Dwelling	C
21634	SN24071310	Dwelling	C
22361	SN242131	Cottage site	E
54898	SN2197612549	Milestone	B
54899	SN2208112561	Dwelling?	C
54900	SN2300112433	Site of Building	E
54901	SN2339012800	Footbridge	E
54902	SN2342212901	Site of Building	E
54903	SN2376113013	Site of Building	E
54904	SN2463813168	Dwelling	C
54905	SN2499013264	Footbridge	E
54906	SN2505613275	Building/dwelling	C
54914	SN2341012867	Milestone	A

Route Option Segment E4 (SN2741015990 to SN2246313590)

PRN	NGR	SITE TYPE	IMPORTANCE
3909	SN2552314587	Inscribed stone	A
5069	SN25301471	Motte	A
15066	SN27191577	Smithy	C
29972	SN268154	Flood defences	D
29973	SN267154	Flood defences	D
10073	SN25451456	Bridge	C
12060	SN253146	Trackway (same as 13306)	C
13306	SN25301465	Road (same as 12060)	C
15015	SN22571364	Quarry	D
16747	SN25701467	Dwelling	C
54911	SN2285413704	Milestone	D
54912	SN2292613805	Building	C
54913	SN2303013816	Cottage	C
54915	SN2506914578	Site of Building	E
55311	SN25411461	Deserted Settlement?	B

Route Option Segment E 4.1 (SN2730515940 to SN2372014150)

PRN	NGR	SITE TYPE	IMPORTANCE
3884	SN26541543	Defended enclosure	A

3909	SN2552314587	Inscribed stone	A
8046	SN25511474	Standing stone	D
10073	SN25451456	Bridge	C
12060	SN253146	Trackway (same as 13306)	C
13306	SN25301465	Road (same as 12060)	C
15066	SN27191577	Blacksmiths workshop	D
15068	SN26761552	Bridge	A
16747	SN25701467	Dwelling	C
55311	SN25411461	Deserted Settlement?	B

Route Option Segment E4.2 (SN2741015990 to SN2433014630)

PRN	NGR	SITE TYPE	IMPORTANCE
3884	SN26541543	Defended enclosure	A
8046	SN25511474	Standing stone	D
5069	SN25301471	Motte	A
15066	SN27191577	Blacksmiths workshop	C
15068	SN26761552	Bridge	A
16747	SN25701467	Dwelling	C
54925	SN2727415964	Dwelling	C
54926	SN2727815930	Cottage site	C
54929	SN2692015580	Dwelling? Farm building?	D
54930	SN2686115572	Dwelling	C
54931	SN2686115553	Public house	C
54932	SN2686115553	Milestone	B

Route Option Segment E5 (SN2741015990 to SN2511013360)

PRN	NGR	SITE TYPE	IMPORTANCE
15066	SN27191577	Smithy	C
29972	SN268154	Flood defences	D
29973	SN267154	Flood defences	D
54907	SN2533113489	Footbridge	E
54908	SN2532113544	Site of building	E
54909	SN2578114015	Site of building	E
54910	SN2594114467	Site of building	E

Route option Segment E5.1 (SN2610014929 to SN2594514550)

No known sites

Route Option Segment E6 (SN2611016700 to SN2246013590)

PRN	NGR	SITE TYPE	IMPORTANCE
8035	SN26051665	cropmark	B
15015	SN22571364	Quarry	D
22309	SN23331430	Cottage site	E
22359	SN22721390	Cottage site	E

22747	SN24111520	Bridge	C
22748	SN24551533	Cottage site?	E
22309	SN23331430	Cottage site?	E
29490	SN24471526	Bridge	C
54916	SN2453715332	Footbridge	E
54917	SN2461015557	Leat?	E
54918	SN2510515875	Footbridge	E
54924	SN2531516030	Footbridge	E

Route Option Segment E6.1 (SN2611016700 to SN2246013590)

PRN	NGR	SITE TYPE	IMPORTANCE
54912	SN2292613805	Cottage	E
8035	SN26051665	Cropmark	B
9829	SN24731542	Hillfort	A? E?
11749	SN24501475	Standing stone?	E
15015	SN22571364	Quarry	D
54924	SN2531516030	Footbridge	E
54918	SN2510515875	Footbridge	E
54911	SN2285413704	Milestone	D
54913	SN2303013816	Cottage	C

Route Option Segment E6.2 (SN2739015960 to SN2505015750)

PRN	NGR	SITE TYPE	IMPORTANCE
9829	SN24731542	Hillfort	A? E?
54925	SN2727415964	Dwelling	C
54926	SN2727815930	Cottage site	D
54927	SN2681715792	Cottage	C
54928	SN2668215916	Cottage	C

Route Option Segment E6.3 (SN2688015860 to SN2717015820)

No known sites

Route Option Segment E6.4 (SN2500016960 to SN2464015120)

PRN	NGR	SITE TYPE	IMPORTANCE
9829	SN24731542	Hillfort	A? E?
54933	SN2503616871	Letterbox	E
28143	SN24791679	Roman road segment	A/B
33930	SN25201682	Roman road segment	A/B

Route Option Segment W1 (SN2010511947 to SN2138612388)

PRN	NGR	SITE TYPE	IMPORTANCE
21612	SN21421238	Cottage site	E

Route Option Segment W4 (SN1939911254 to SN2057612875)

PRN	NGR	SITE TYPE	IMPORTANCE
21603	SN20331243	Cottage site	D/E
54894	SN1942011230	Milestone	E

54895	SN1948911364	Milestone	A
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Route Option Segment W4.1 (SN1925011020 to SN2057012870)

PRN	NGR	SITE TYPE	IMPORTANCE
21602	SN202121	Church land	E

Route Option Segment W4.2 (SN1925011020 to SN2021012010)

PRN	NGR	SITE TYPE	IMPORTANCE
21562	SN19861152	Dwelling	C
54894	SN1942011230	Milestone	E
54895	SN1948911364	Milestone	A

Route Option Segment W5 (SN1986011500 to SN2141012390)

PRN	NGR	SITE TYPE	IMPORTANCE
5823	SN20701172	Cropmark	B
21612	SN21421238	Cottage site	E
21562	SN19861152	Dwelling	C
54896	SN1986211472	Farmstead	D
54897	SN2123912200	Site of Building	E

5.0 SIGNIFICANCE OF IMPACT – BY ROUTE OPTION SEGMENT

5.1 The following assessment of the significance of impact on the individual sites and on the route option segments is based on the known archaeological resource only at this stage and it does not include an assessment of the potential for buried archaeological sites.

Route Option Segment C1 (SN2303613754 to SN2511313360)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
15016	SN24951331	Mill building	Moderate
15028	SN25051332	Bridge	Moderate
54913	SN2303013816	Cottage	No impact

Overall significance of impact of route option segment C1 = Moderate

Route Option Segment C2 (SN2033012200 to SN2246013590)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
21605	SN20601231	Farmstead site	Minor/No impact

Overall significance of impact of route option segment C2 = Minor/No impact

Route Option Segment C3 (SN2139012380 to SN2184012890)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
21612	SN21421238	Cottage site?	Minor/No impact

Overall significance of impact of route option segment C3 = Minor/No impact

Route Option Segment C4 (SN2058012880 to SN2246013590)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
21614	SN22051353	Dwelling?	Minor/No impact
22357	SN22261358	Cottage site?	Minor/No impact

Overall significance of impact of route option segment C4 = Minor/No impact

Route Option Segment C5 (SN2138612386 to SN2511013360)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
3886	SN24221316	Burnt mound	No impact
10072	SN23811304	Bridge	No impact
11166	SN247131	Standing stone	No impact
15016	SN24951331	Fulling mill	Moderate
15017	SN23651299	Chapel	No impact
15028	SN25051332	Bridge	Moderate
20930	SN23571305	Mill site	Unknown
21612	SN21421238	Cottage site	Minor/No impact
21619	SN22841242	Cottage site	Minor/No impact
21627	SN23561302	Dwelling	Moderate
21634	SN24071310	Dwelling	Minor/No impact
22361	SN242131	Cottage site	No impact
54898	SN2197612549	Milestone	Moderate/Minor
54899	SN2208112561	Dwelling?	Moderate/minor
54900	SN2300112433	Site of Building	No impact
54901	SN2339012800	Footbridge	No impact
54902	SN2342212901	Site of Building	Moderate/minor

54903	SN2376113013	Site of Building	No impact
54904	SN2463813168	Dwelling	No impact
54905	SN2499013264	Footbridge	Minor/No impact
54906	SN2505613275	Building/dwelling	No impact
54914	SN2341012867	Milestone	Major/Moderate

Overall significance of impact of route option segment C5 = Minor

Route Option Segment E4 (SN2741015990 to SN2246313590)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
3909	SN2552314587	Inscribed stone	No impact
5069	SN25301471	Motte	Major
15066	SN27191577	Smithy	No impact
29972	SN268154	Flood defences	Minor
29973	SN267154	Flood defences	Minor
10073	SN25451456	Bridge	No impact
12060	SN253146	Trackway (same as 13306)	Major
13306	SN25301465	Road (same as 12060)	Major
15015	SN22571364	Quarry	Minor
16747	SN25701467	Dwelling	No impact
54911	SN2285413704	Milestone	Minor
54912	SN2292613805	Building	No impact
54913	SN2303013816	Cottage	No impact
54915	SN2506914578	Site of Building	
55311	SN25411461	Deserted Settlement?	Major

Overall significance of impact of route option segment E4 = Major

Route Option Segment E 4.1 (SN2730515940 to SN2372014150)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
3884	SN26541543	Defended enclosure	Major
3909	SN2552314587	Inscribed stone	No impact
8046	SN25511474	Standing stone	No impact
10073	SN25451456	Bridge	No impact
12060	SN253146	Trackway (same as 13306)	Major
13306	SN25301465	Road (same as 12060)	Major
15066	SN27191577	Blacksmiths workshop	No impact
15068	SN26761552	Bridge	Major
16747	SN25701467	Dwelling	No impact
55311	SN25411461	Deserted Settlement?	Major

Overall significance of impact of route option segment E4.1 = Major

Route Option Segment E4.2 (SN2741015990 to SN2433014630)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
3884	SN26541543	Defended enclosure	Major

8046	SN25511474	Standing stone	No impact
5069	SN25301471	Motte	Major
15066	SN27191577	Blacksmiths workshop	No impact
15068	SN26761552	Bridge	Major
16747	SN25701467	Dwelling	No impact
54925	SN2727415964	Dwelling	Moderate/minor
54926	SN2727815930	Cottage site	Moderate/minor
54929	SN2692015580	Dwelling? Farm building?	No impact
54930	SN2686115572	Dwelling	No impact
54931	SN2686115553	Public house	No impact
54932	SN2686115553	Milestone	Major/Moderate

Overall significance of impact of route option segment E4.2 = Major/Moderate

Route Option Segment E5 (SN2741015990 to SN2511013360)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
15066	SN27191577	Smithy	No impact
29972	SN268154	Flood defences	Minor
29973	SN267154	Flood defences	Minor
54907	SN2533113489	Footbridge	No impact
54908	SN2532113544	Site of building	Minor/No impact
54909	SN2578114015	Site of building	Minor/No impact
54910	SN2594114467	Site of building	Minor

Overall significance of impact of route option segment E5 = Minor

Route option Segment E5.1 (SN2610014929 to SN2594514550)

No known sites.

Overall significance of impact of route option segment E5.1 = No impact

Route Option Segment E6 (SN2611016700 to SN2246013590)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
8035	SN26051665	cropmark	Major
15015	SN22571364	Quarry	Minor
22309	SN23331430	Cottage site	Minor
22359	SN22721390	Cottage site	No impact
22747	SN24111520	Bridge	Minor/No impact
22748	SN24551533	Cottage site?	Minor/No impact
22309	SN23331430	Cottage site?	Minor/No impact
29490	SN24471526	Bridge	Minor/No impact
54916	SN2453715332	Footbridge	No impact
54917	SN2461015557	Leat?	No impact
54918	SN2510515875	Footbridge	Minor
54924	SN2531516030	Footbridge	Minor

Overall significance of impact of route option segment E6 = Minor

Route Option Segment E6.1 (SN2611016700 to SN2246013590)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
54912	SN2292613805	Building	No impact

8035	SN26051665	Cropmark	Major
9829	SN24731542	Hillfort	Major
11749	SN24501475	Standing stone?	No impact
15015	SN22571364	Quarry	Minor
54924	SN2531516030	Footbridge	Minor
54918	SN2510515875	Footbridge	Minor
54911	SN2285413704	Milestone	Minor
54913	SN2303013816	Cottage	No impact

Overall significance of impact of route option segment E6.1 = Moderate

Route Option Segment E6.2 (SN2739015960 to SN2505015750)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
9829	SN24731542	Hillfort	Major
54925	SN2727415964	Dwelling	Moderate/Minor
54926	SN2727815930	Cottage site	Moderate/Minor
54927	SN2681715792	Cottage	No impact
54928	SN2668215916	Cottage	No impact

Overall significance of impact of route option segment E6.2 = Moderate

Route Option Segment E6.3 (SN2688015860 to SN2717015820)

No known sites

Overall significance of impact of route option segment E6.3 = No impact

Route Option Segment E6.4 (SN2500016960 to SN2464015120)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
9829	SN24731542	Hillfort	Major
54933	SN2503616871	Letterbox	No impact
28143	SN24791679	Roman road segment	Major
33930	SN25201682	Roman road segment	Major/Moderate

Overall significance of impact of route option segment E6.4 = Moderate

Route Option Segment W1 (SN2010511947 to SN2138612388)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
21612	SN21421238	Cottage site	Minor/No impact

Overall significance of impact of route option segment W1 = Minor/No impact

Route Option Segment W4 (SN1939911254 to SN2057612875)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
21603	SN20331243	Cottage site	Minor/No impact
54894	SN1942011230	Milestone	Moderate/Minor/No impact
54895	SN1948911364	Milestone	Major

Overall significance of impact of route option segment W4 = Minor/No impact

Route Option Segment W4.1 (SN1925011020 to SN2057012870)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
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21602	SN202121	Church land	No impact
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Overall significance of impact of route option segment W4.1 = No impact

Route Option Segment W4.2 (SN1925011020 to SN2021012010)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
21562	SN19861152	Dwelling	Minor
54894	SN1942011230	Milestone	Moderate/Minor/No impact
54895	SN1948911364	Milestone	Major

Overall significance of impact of route option segment W4.2 = Minor

Route Option Segment W5 (SN1986011500 to SN2141012390)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT
5823	SN20701172	Cropmark	Major
21612	SN21421238	Cottage site	Minor/No impact
21562	SN19861152	Dwelling	Minor
54896	SN1986211472	Farmstead	No impact
54897	SN2123912200	Site of Building	Moderate/Minor

Overall significance of impact of route option segment W5 = Moderate

6.0 SUGGESTED MITIGATION MEASURES FOR INDIVIDUAL SITES – BY ROUTE SECTION SEGMENT

- 6.1 The suggested mitigation works detailed below can be separated into a two-phased programme, with phase 1 – consisting of survey, evaluation, excavation and recording – taking place before any construction works and phase 2 – consisting of a watching brief and recording – taking place during site clearance and site stripping.

Route Option C1 (SN2303613754 to SN2511313360)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
15016	SN24951331	Mill building	Moderate	Standing building survey prior to any works that may affect this building.	1
15028	SN25051332	Bridge	Moderate	Standing building survey prior to any works that may affect this bridge.	1
54913	SN2303013816	Cottage	No impact	No action	

Route Option C2 (SN2033012200 to SN2246013590)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
21605	SN20601231	Farmstead site	Minor/No impact	No action	

Route Option C3 (SN2139012380 to SN2184012890)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
21612	SN21421238	Cottage site?	Minor/No impact	No action	

Route Option C4 (SN2058012880 to SN2246013590)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
21614	SN22051353	Dwelling?	Minor/No impact	No action	
22357	SN22261358	Cottage site?	Minor/No impact	No action	

Route Option C5 (SN2138612386 to SN2511013360)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
3886	SN24221316	Burnt mound	No impact	No action	
10072	SN23811304	Bridge	No impact	No action	
11166	SN247131	Standing	No impact	No action	

		stone			
15016	SN24951331	Fulling mill	Moderate	Standing building survey prior to any works that may affect this building.	1
15017	SN23651299	Chapel	No impact	No action	
15028	SN25051332	Bridge	Moderate	Standing building survey prior to any works that may affect this bridge.	1
20930	SN23571305	Mill site	Unknown	Monitor during watching brief on site clearance works and record any exposed structures.	2
21612	SN21421238	Cottage site	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2
21619	SN22841242	Cottage site	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2
21627	SN23561302	Dwelling	Moderate	Standing building survey prior to any works that may affect this building.	1
21634	SN24071310	Dwelling	Minor/No impact	Monitor during watching brief on site clearance works and record any	2

				exposed structures.	
22361	SN242131	Cottage site	No impact	No action	
54898	SN2197612549	Milestone	Moderate/Minor	Record by photograph and if removed the milestone should be replaced alongside the new road line as close to its original position as possible.	1
54899	SN2208112561	Dwelling?	Moderate/Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
54900	SN2300112433	Site of Building	No impact	No action	
54901	SN2339012800	Footbridge	No impact	No action	
54902	SN2342212901	Site of Building	Moderate/Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
54903	SN2376113013	Site of Building	No impact	No action	
54904	SN2463813168	Dwelling	No impact	No action	
54905	SN2499013264	Footbridge	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2
54906	SN2505613275	Building dwelling	No impact	No action	
54914	SN2341012867	Milestone	Major/Moderate	Record by photograph and if removed the milestone	1

				should be replaced alongside the new road line as close to its original position as possible.	
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Route Option E4 (SN2741015990 to SN2246313590)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
3909	SN2552314587	Inscribed stone	No impact	No action	
5069	SN25301471	Motte	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1
15066	SN27191577	Smithy	No impact	No action	
29972	SN268154	Flood defences	Minor	Monitor during watching brief on site clearance and construction works and record any parts of the defences affected.	2
29973	SN267154	Flood defences	Minor	Monitor during watching brief on site clearance and construction works and record any parts of the defences affected.	2
10073	SN25451456	Bridge	No impact	No impact	
12060	SN253146	Trackway (same as 13306)	Major	Full programme of archaeological	1

				investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	
13306	SN25301465	Road (same as 12060)	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1
15015	SN22571364	Quarry	Minor	Record by photograph.	1
16747	SN25701467	Dwelling	No impact	No action	
54911	SN2285413704	Milestone	Minor	Record by photograph and if removed the milestone should be replaced alongside the new road line as close to its original position as possible.	1
54912	SN2292613805	Building	No impact	No action	
54913	SN2303013816	Cottage	No impact	No action	
54915	SN2506914578	Site of Building	Moderate/Minor	Monitor during watching brief on site clearance works and record any exposed structures.	1
55311	SN25411461	Deserted Settlement?	Major	Full programme of archaeological	1

				investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	
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Route Option E 4.1 (SN2730515940 to SN2372014150)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
3884	SN26541543	Defended enclosure	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1
3909	SN2552314587	Inscribed stone	No impact	No action	
8046	SN25511474	Standing stone	No impact	No action	
10073	SN25451456	Bridge	No impact	No action	
12060	SN253146	Trackway (same as 13306)	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1
13306	SN25301465	Road (same as 12060)	Major	Full programme of archaeological investigation, including geophysical	1

				survey, archaeological evaluation and if required excavation and post excavation reporting.	
15066	SN27191577	Blacksmiths workshop	No impact	No action	
15068	SN26761552	Bridge	Major	Standing building survey prior to any works that may affect this bridge.	1
16747	SN25701467	Dwelling	No impact	No action	
55311	SN25411461	Deserted Settlement?	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1

Route Option E4.2 (SN2741015990 to SN2433014630)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
3884	SN26541543	Defended enclosure	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1
8046	SN25511474	Standing stone	No impact	No action	
5069	SN25301471	Motte	Major	Full	1

				programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	
15066	SN27191577	Blacksmiths workshop	No impact	No action	
15068	SN26761552	Bridge	Major	Standing building survey prior to any works that may affect this bridge.	1
16747	SN25701467	Dwelling	No impact	No action	
54925	SN2727415964	Dwelling	Moderate/minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
54926	SN2727815930	Cottage site	Moderate/minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
54929	SN2692015580	Dwelling? Farm building?	No impact	No action	
54930	SN2686115572	Dwelling	No impact	No action	
54931	SN2686115553	Public house	No impact	No action	
54932	SN2686115553	Milestone	Moderate/Minor/No impact	Monitor this area during watching brief on site clearance and construction works and record the	2

				milestone if it is exposed. If it is present and to be affected it should be re-erected as close to its original position as possible.	
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Route Option E5 (SN2741015990 to SN2511013360)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
15066	SN27191577	Smithy	No impact	No action	
29972	SN268154	Flood defences	Minor	Monitor during watching brief on site clearance and construction works and record any parts of the defences affected.	2
29973	SN267154	Flood defences	Minor	Monitor during watching brief on site clearance and construction works and record any parts of the defences affected.	2
54907	SN2533113489	Footbridge	No impact	No action	
54908	SN2532113544	Site of building	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2
54909	SN2578114015	Site of building	Minor/No impact	Monitor during watching brief on site clearance works and	2

				record any exposed structures.	
54910	SN2594114467	Site of building	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2

Route option E5.1 (SN2610014929 to SN2594514550)

No known sites

Route Option E6 (SN2611016700 to SN2246013590)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
8035	SN26051665	cropmark	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1
15015	SN22571364	Quarry	Minor	Record by photograph.	1
22309	SN23331430	Cottage site	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
22359	SN22721390	Cottage site	No impact	No action	
22747	SN24111520	Bridge	Minor/No impact	Monitor during watching brief on site clearance works and record any	2

				exposed structures.	
22748	SN24551533	Cottage site?	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2
22309	SN23331430	Cottage site?	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2
29490	SN24471526	Bridge	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2
54916	SN2453715332	Footbridge	No impact	No action	
54917	SN2461015557	Leat?	No impact	No action	
54918	SN2510515875	Footbridge	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
54924	SN2531516030	Footbridge	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2

Route Option E6.1 (SN2611016700 to SN2246013590)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
54912	SN2292613805	Building	No impact	No impact	
8035	SN26051665	Cropmark	Major	Full programme of	1

				archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	
9829	SN24731542	Hillfort	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1
11749	SN24501475	Standing stone?	No impact	No action	
15015	SN22571364	Quarry	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
54924	SN2531516030	Footbridge	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
54918	SN2510515875	Footbridge	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2

54911	SN2285413704	Milestone	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
54913	SN2303013816	Cottage	No impact	No action	

Route Option E6.2 (SN2739015960 to SN2505015750)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
9829	SN24731542	Hillfort	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1
54925	SN2727415964	Dwelling	Moderate/Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
54926	SN2727815930	Cottage site	Moderate/Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
54927	SN2681715792	Cottage	No impact	No action	
54928	SN2668215916	Cottage	No impact	No action	

Route Option E6.3 (SN2688015860 to SN2717015820)

No known sites

Route Option E6.4 (SN2500016960 to SN2464015120)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
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9829	SN24731542	Hillfort	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1
54933	SN2503616871	Letterbox	No impact	No action	
28143	SN24791679	Roman road segment	Major/Moderate	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1
33930	SN25201682	Roman road segment	Major/Moderate	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1

Route Option W1 (SN2010511947 to SN2138612388)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
21612	SN21421238	Cottage site	Minor/No impact	Monitor during watching brief on site clearance works and record any	2

				exposed structures.	
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Route Option W4 (SN1939911254 to SN2057612875)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
21603	SN20331243	Cottage site	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2
54894	SN1942011230	Milestone	Moderate/Minor/No impact	Record by photograph and if the milestone is removed it should be replaced alongside the new road line as close to its original position as possible.	2
54895	SN1948911364	Milestone	Major/Moderate	Record by photograph and if the milestone is removed it should be replaced alongside the new road line as close to its original position as possible.	2

Route Option W4.1 (SN1925011020 to SN2057012870)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
21602	SN202121	Church land	No impact	No action	

Route Option W4.2 (SN1925011020 to SN2021012010)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
21562	SN19861152	Dwelling	Minor	Monitor during watching	2

				brief on site clearance works and record any exposed structures.	
54894	SN1942011230	Milestone	Moderate/Minor/No impact	Record by photograph and if the milestone is removed it should be replaced alongside the new road line as close to its original position as possible.	1
54895	SN1948911364	Milestone	Major/Moderate	Record by photograph and if removed the milestone should be replaced alongside the new road line as close to its original position as possible.	1

Route Option W5 (SN1986011500 to SN2141012390)

PRN	NGR	SITE TYPE	SIGNIFICANCE OF IMPACT	SUGGESTED MITIGATION	MITIGATION PHASE
5823	SN20701172	Cropmark	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1
21612	SN21421238	Cottage site	Minor/No impact	Monitor during watching brief	2

				on site clearance works and record any exposed structures.	
21562	SN19861152	Dwelling	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2
54896	SN1986211472	Farmstead	No impact	No action	
54897	SN2123912200	Site of Building	Moderate/Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2

7. CONCLUSIONS

The archaeological resource and the likely impacts of construction

- 7.1 The archaeological resource within the study area has a long time-depth and displays great variation in the nature of the archaeological remains visible today.
- 7.2 The route options and route option segments will impact on the archaeological resource in varying degrees of severity. Some of the smaller route option segments do not affect any known archaeological sites, although they may have a buried archaeological resource that has not yet been identified (see below).
- 7.3 Some of the route option segments pass over, or close to archaeologically sensitive areas and these will, inevitably have the biggest impact on the archaeological resource.
- 7.4 One such area lies between the village of Llanddowror and the remains of its motte (PRN 5069). This area, which is to be crossed by route option segment E4, contains earthworks (PRN 55311) that may be the remains of a deserted medieval village that developed between the castle and the church.
- 7.5 Not only could this route option segment directly impact on potentially significant archaeological remains it would also sever the link between the motte and the village, thus removing the castle from its landscape context and isolating it from its associated settlement.
- 7.6 See 7.11 below for an overall assessment of the archaeological sensitivity of the various route option segments.

The buried archaeological resource

- 7.7 Large-scale topsoil stripping for recent major construction and infrastructure projects has exposed a number of new and previously unknown archaeological sites across southwest Wales. Many of these have been important and rare sites dating from periods that are, because of their nature, underrepresented in the archaeological record. Therefore, the major site clearance and site stripping works that will be required for the proposed improvements – whichever of the route options is taken up – will have the potential to expose significant archaeological sites.
- 7.8 Suggested mitigation measures for each archaeological site have been detailed above (see Section 6 and Impact Assessment Sheets at the rear of this report) and it is not intended to repeat them here. However, it is felt appropriate that an outline of the suggested mitigation measures and how these can be applied to the potential buried archaeological resource is given.
- 7.9 The programme is divided into two with some archaeological work being carried out prior to any road construction works starting and a watching brief undertaken during the major episodes of construction works.
- 7.10 As well as the targeted watching briefs suggested for individual sites, a general watching brief should be maintained on all large scale site

clearance and topsoil stripping in order to identify and record any previously unknown sites.

Archaeological sensitivity of the route option segments

- 7.11 The following table lists the various route option segments in a sliding scale of archaeological sensitivity, based on known archaeological sites. It does not take into account the buried archaeological resource, which has been discussed above (see 7.7). All of these routes may contain significant buried archaeological remains.

Major – E4, E4.1

Major/Moderate – E4.2

Moderate – C1, E6.1, E6.2, E6.4, W5

Moderate/Minor ---

Minor – C5, E5, E6

Minor/No impact – C2, C3, C4, W1, W4, W4.2

No impact – E5.1, W4.1

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APPENDIX 1: SELECTED PHOTOGRAPHS



Plate 1: General view northeast from the summit of Brandy Hill along the line of route option segment E6. The bushes visible on the right of the shot are growing in quarry PRN 15015.



Plate 2: View northeast across the Afon Taf floodplain just west of Llanddowror. The proposed route option segments E4, E4.1 and E4.2 will cross this area.



Plate 3: View north towards the remains of the motte at Llanddowror (PRN 5069). A medieval road (PRN 13306) and track, known as the Pilgrims Way (PRN 12060) ran along a line now followed by the hedge running from centre left of the shot. Proposed route option segments E4 and E4.2 will affect this site.



Plate 4: Earthworks (PRN 55311) visible in the field between the motte (PRN 5069) and Llanddowror, which may be the remains of a deserted medieval settlement. Proposed route option segment E4 will cross and remove these earthworks.



Plate 5: Milestone (PRN 54895) alongside the present A477. This is one of a number of Thomas Telford's original milestone that survive along the road side. The milestone is a Listed Building. This milestone would be affected by route option segments W4 and W4.2.

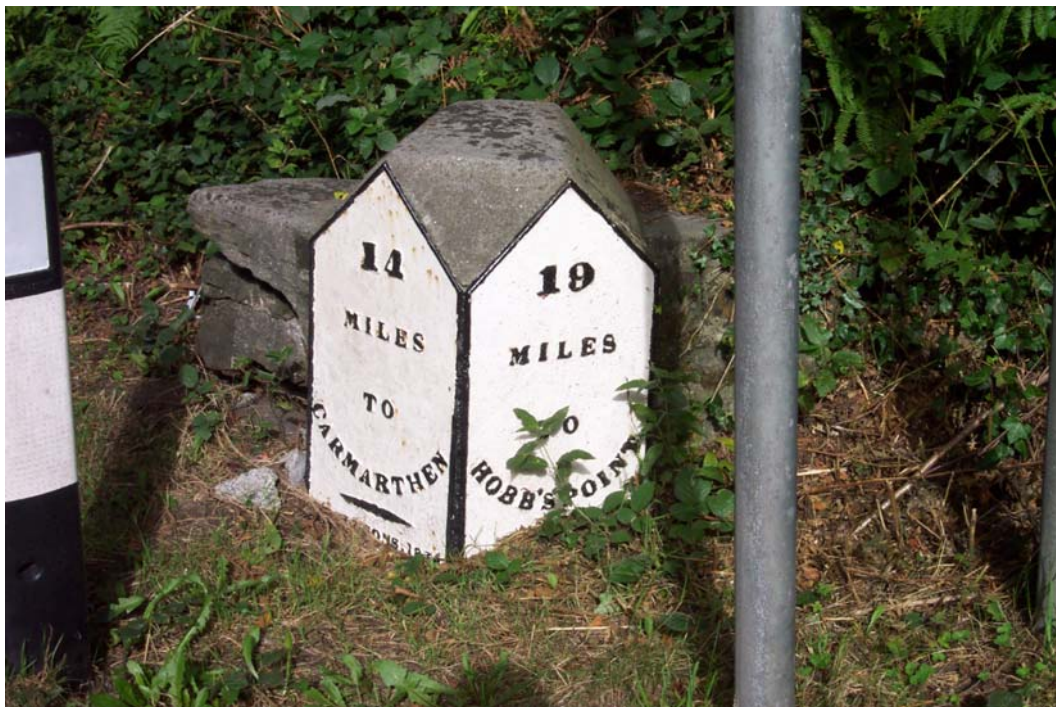


Plate 6: Another of Thomas Telford's original milestone (PRN 54898). This milestone does not appear to be Listed, but it is of equal quality and value as the listed examples. This milestone would be affected by route option segment C5).



Plate 7: View south of Pont Newydd (PRN 15068), part of Thomas Telford's original road. Route option segments E4.1 and E4.2 would affect this bridge. The bridge is a Listed Building.



Plate 8: View west along the A477 from Pont Newydd towards the earthwork remains of what may be a medieval moated enclosure (PRN 3884). The enclosure is clearly visible on the right hand side of the road. It is not so clear on the left side of the road. This site is a Scheduled Ancient Monument. Proposed route option segments E4.1 and E4.2 may impact on the enclosure.



Plate 9: Rhyd-y-Wrach cottage (PRN 54899). This is a typical post-medieval roadside settlement, now abandoned, which developed alongside the road. Route option segment C5 may have an impact on this cottage.



Plate 10: The site of another roadside settlement, Pont-Parciau (PRN 54903), which has been abandoned and demolished. It is not certain whether any evidence of the buildings survive within the vegetation. This site lies within the 50m buffer zone of route option segment C5 and it may be unaffected.



Plate 11: General view southeast across the site of cropmark (PRN 8035). Proposed route option segments E6 and E6.1 will cross the area.



Plate 12: view west across the site of possible hillfort PRN 9829. Proposed route options E6.1, E6.2 and E6.4 will cross this area from right to left, passing over the prominent ridge in the centre of the shot.



Plate 13: The presumed site of a small post-medieval settlement (PRN 21603). This site lies just within the 50 buffer zone of route option segment W4 and will probably be unaffected.



Plate 14: The Bont (PRN 15028). This small single arch stone bridge is within the buffer zones for route option segments C1 and C5. It could be affected by road widening or changes in alignment.

APPENDIX 2: IMPACT ASSESSMENT SHEETS – BY ROUTE OPTION SEGMENT

Route Option Segment	PRN	NGR	SITE TYPE	Archaeological importance	Likely impact	Significance of impact	Suggested mitigation	Mitigation Phase	Overall significance of impact
C1	15016	SN24951331	Mill building	C	Severe	Moderate	Standing building survey prior to any works that may affect this building.	1	Moderate
	15028	SN25051332	Bridge	C	Total/Very severe	Moderate	Standing building survey prior to any works that may affect this bridge.	1	
	54913	SN2303013816	Cottage	C	None	No impact	No action		
C2	21605	SN20601231	Farmstead site	D	Slight/None	Minor/No impact	No action		Minor/No impact
C3	21612	SN21421238	Cottage site?	E	Slight/None	Minor/No impact	No action		Minor/No impact
C4	21614	SN22051353	Dwelling?	E	Slight/None	Minor/No impact	No action		Minor/No impact
	22357	SN22261358	Cottage site?	E	Slight/None	Minor/No impact	No action		
C5	3886	SN24221316	Burnt mound	E	None	No impact	No action		Minor
	10072	SN23811304	Bridge	D	None	No impact	No action		
	11166	SN247131	Standing stone	E	None	No impact	No action		
	15016	SN24951331	Fulling mill	C	Severe?	Moderate	Standing building survey prior to any works that may affect this building.	1	
	15017	SN23651299	Chapel	C	None	No impact	No action		
	15028	SN25051332	Bridge	C	Total/Very severe	Moderate	Standing building survey prior to any works that may affect this bridge.	1	
	20930	SN23571305	Mill site	E	Unknown	Unknown	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	21612	SN21421238	Cottage site	E	Slight/None	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	21619	SN22841242	Cottage site	E	Slight/None	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	21627	SN23561302	Dwelling	C	Total/Very severe	Moderate	Standing building survey prior to any works that may affect this building.	1	
	21634	SN24071310	Dwelling	C	Slight/None	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	22361	SN242131	Cottage site	E	None	No impact	No action		
	54898	SN2197612549	Milestone	B	Total/Very severe	Major/Moderate	Record by photograph and if removed the milestone should be replaced alongside the new road line as close to its original position as possible.	1	
	54899	SN2208112561	Dwelling?	C	Total/Very severe	Moderate/minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54900	SN2300112433	Site of Building	E	None	No impact	No action		
	54901	SN2339012800	Footbridge	E	None	No impact	No action		

	54902	SN2342212901	Site of Building	E	Total	Moderate/minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54903	SN2376113013	Site of Building	E	None	No impact	No action		
	54904	SN2463813168	Dwelling	C	None	No impact	No action		
	54905	SN2499013264	Footbridge	E	Medium/Slight	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54906	SN2505613275	Building/dwelling	C	None	No impact	No action		
	54914	SN2341012867	Milestone	A	Total/Very severe	Major/Moderate	Record by photograph and if removed the milestone should be replaced alongside the new road line as close to its original position as possible.	1	

E4	3909	SN2552314587	Inscribed stone	A	None	No impact	No action		Major
	5069	SN25301471	Motte	A	Very severe/Severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	
	15066	SN27191577	Smithy	C	None	No impact	No action		
	29972	SN268154	Flood defences	D	Severe	Minor	Monitor during watching brief on site clearance and construction works and record any parts of the defences affected.	2	
	29973	SN267154	Flood defences	D	Severe	Minor	Monitor during watching brief on site clearance and construction works and record any parts of the defences affected.	2	
	10073	SN25451456	Bridge	C	None	No impact	No impact		
	12060	SN253146	Trackway (same as 13306)	C	Very severe/Severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	
	13306	SN25301465	Road (same as 12060)	C	Very severe/Severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	
	15015	SN22571364	Quarry	D	Very severe/Severe	Minor	Record by photograph.	1	
	16747	SN25701467	Dwelling	D	None	No impact	No action		

	54911	SN2285413704	Milestone	D	Total/Very severe	Minor	Record by photograph and if removed the milestone should be replaced alongside the new road line as close to its original position as possible.	1	
	54912	SN2292613805	Building	D	None	No impact	No action		
	54913	SN2303013816	Cottage	D	None	No impact	No action		
	54915	SN2506914578	Site of Building	E	Severe/Medium	Moderate/Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	55311	SN25411461	Deserted Settlement?	B	Total/Very severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	

E4.1	3884	SN26541543	Defended enclosure	A	Total/Very severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	Major
	3909	SN2552314587	Inscribed stone	A	None	No impact	No action		
	8046	SN25511474	Standing stone	D	None	No impact	No action		
	10073	SN25451456	Bridge	C	None	No impact	No action		
	12060	SN253146	Trackway (same as 13306)	C	Very severe/Severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	
	13306	SN25301465	Road (same as 12060)	C	Very severe/Severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	
	15066	SN27191577	Blacksmiths workshop	D	None	No impact	No action		
	15068	SN26761552	Bridge	A	Total/Very severe	Major	Standing building survey prior to any works that may affect this bridge	1	
	16747	SN25701467	Dwelling	D	None	No impact	No action		

	55311	SN25451456	Deserted Settlement?	B	Total/Very severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	
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E4.2	3884	SN26541543	Defended enclosure	A	Total/Very severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	Major/Moderate
	8046	SN25511474	Standing stone	D	None	No impact	No action		
	5069	SN25301471	Motte	A	Very severe/Severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	
	15066	SN27191577	Blacksmiths workshop	C	None	No impact	No action		
	15068	SN26761552	Bridge	A	Total/Very severe	Major	Standing building survey prior to any works that may affect this bridge	1	
	16747	SN25701467	Dwelling	C	None	No impact	No action		
	54925	SN2727415964	Dwelling	C	Very severe/Severe	Moderate/minor	Monitor during watching brief on site clearance works and record any exposed structures	2	
	54926	SN2727815930	Cottage site	D	Total/Very severe	Moderate/minor	Monitor during watching brief on site clearance works and record any exposed structures	2	
	54929	SN2692015580	Dwelling?	C	None	No impact	No action		
			Farm building?		None	No impact	No action		
	54930	SN2686115572	Dwelling	C	None	No impact	No action		
	54931	SN2686115553	Public house	D	None				
	54932	SN2686115553	Milestone	B	Very severe/Severe	Major/Moderate	Record by photograph and if removed the milestone should be replaced alongside the new road line as close to its original position as possible.	1	

E5	15066	SN27191577	Smithy	C	None	No impact	No action		Minor
	29972	SN268154	Flood defences	D	Severe	Minor	Monitor during watching brief on site clearance and construction works and record any parts of the defences affected	2	

	29973	SN267154	Flood defences	D	Severe	Minor	Monitor during watching brief on site clearance and construction works and record any parts of the defences affected.		
	54907	SN2533113489	Footbridge	E	None	No impact	No action		
	54908	SN2532113544	Site of building	E	Medium?/Slight	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54909	SN2578114015	Site of building	E	Medium?/Slight	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54910	SN2594114467	Site of building	E	Total/Very severe	Minor	Monitor during watching brief on site clearance works and record any exposed structures	2	

E6	8035	SN26051665	cropmark	B	Total/Very severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	Minor
	15015	SN22571364	Quarry	D	Very severe/Severe	Minor	Record by photograph.	1	
	22309	SN23331430	Cottage site	E	Total/Very severe	Minor	Monitor during watching brief on site clearance works and record any exposed structures	2	
	22359	SN22721390	Cottage site	E	None	No impact	No action		
	22747	SN24111520	Bridge	D	None/Slight	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	22748	SN24551533	Cottage site?	E	None/Slight	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	22309	SN23331430	Cottage site?	E	Total/Very severe	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	29490	SN24471526	Bridge	C	None/Slight	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54916	SN2453715332	Footbridge	E	None	No impact	No action		
	54917	SN2461015557	Leat?	E	None	No impact	No action		
	54918	SN2510515875	Footbridge	E	Total/Very severe	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54924	SN2531516030	Footbridge	E	Total/Very severe	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	

E6.1	54912	SN2292613805	Cottage	E	None	No impact	No impact		Moderate
	8035	SN26051665	Cropmark	B	Total/Very severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	
	9829	SN24731542	Hillfort	A? E?	Total/Very severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	
	11749	SN24501475	Standing stone?	E	None	No impact	No action		
	15015	SN22571364	Quarry	D	Very severe/Severe	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54924	SN2531516030	Footbridge	E	Total/Very severe	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54918	SN2510515875	Footbridge	E	Total/Very severe	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54911	SN2285413704	Milestone	D	Total/Very severe	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54913	SN2303013816	Cottage	C	None	No impact	No action		

E6.2	9829	SN24731542	Hillfort	A? E?	Total/Very severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	Moderate
	54925	SN2727415964	Dwelling	D	Very severe/Severe	Moderate/Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54926	SN2727815930	Cottage site	D	Total/Very severe	Moderate/Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54927	SN2681715792	Cottage	C	None	No impact	No action		
	54928	SN2668215916	Cottage	C	None	No impact	No action		

E6.4	9829	SN24731542	Hillfort	A? E?	Total/Very severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	Moderate
	54933	SN2503616871	Letterbox	E	None	No impact	No action		
	28143	SN24791679	Roman road segment	A/B	Severe/Medium	Moderate/Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	
	33930	SN25201682	Roman road segment	A/B	Severe/Medium	Moderate/Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	

W1	21612	SN21421238	Cottage site	E	Slight/None	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	Minor/No impact
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W4	21603	SN20331243	Cottage site	D/E	Slight/None	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	Minor/No impact
	54894	SN1942011230	Milestone	E	Slight/None	Moderate/Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54895	SN1948911364	Milestone	A	Total/Very Severe	Major/Moderate	Record by photograph and if the milestone is removed it should be replaced alongside the new road line as close to its original position as possible.	1	

W4.1	21602	SN202121	Church land	E	None	No impact	No action		No impact
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W4.2	21562	SN19861152	Dwelling	C	Severe/Medium	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	Minor
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	54894	SN1942011230	Milestone	E	Slight/None	Moderate/Minor/No impact	Record by photograph and if the milestone is removed it should be replaced alongside the new road line as close to its original position as possible.	1	
	54895	SN1948911364	Milestone	A	Total/Very severe	Major/Moderate	Record by photograph and if removed the milestone should be replaced alongside the new road line as close to its original position as possible.	1	

W5	5823	SN20701172	Cropmark	B	Total/Very severe	Major	Full programme of archaeological investigation, including geophysical survey, archaeological evaluation and if required excavation and post excavation reporting.	1	Moderate
	21612	SN21421238	Cottage site	E	Slight/None	Minor/No impact	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	21562	SN19861152	Dwelling	C	Severe/Medium	Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	
	54896	SN1986211472	Farmstead	D	None	No impact	No action		
	54897	SN2123912200	Site of Building	E	Medium/Slight	Moderate/Minor	Monitor during watching brief on site clearance works and record any exposed structures.	2	

APPENDIX 3: THE MAPS

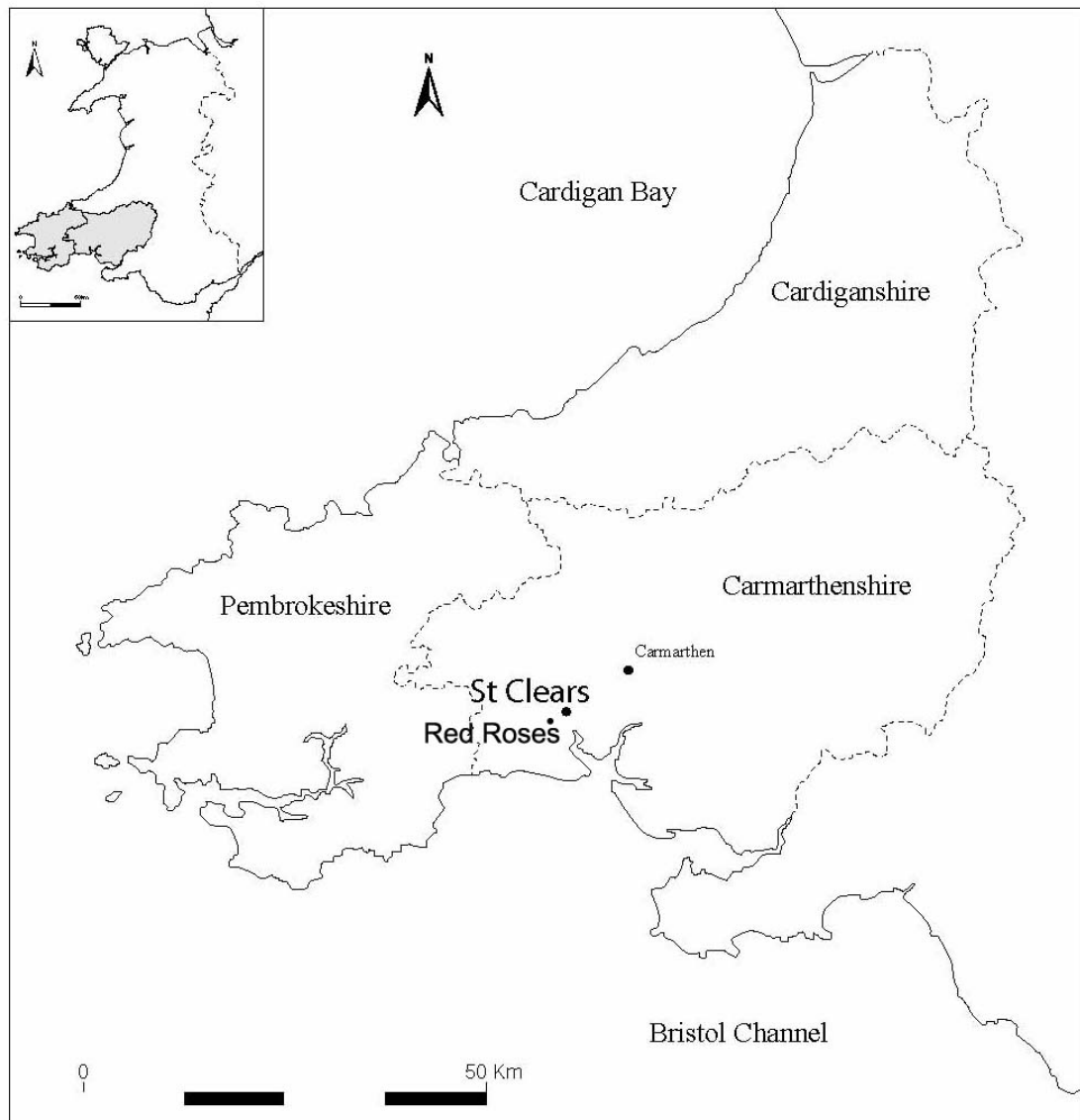


Figure 1: Location Plan

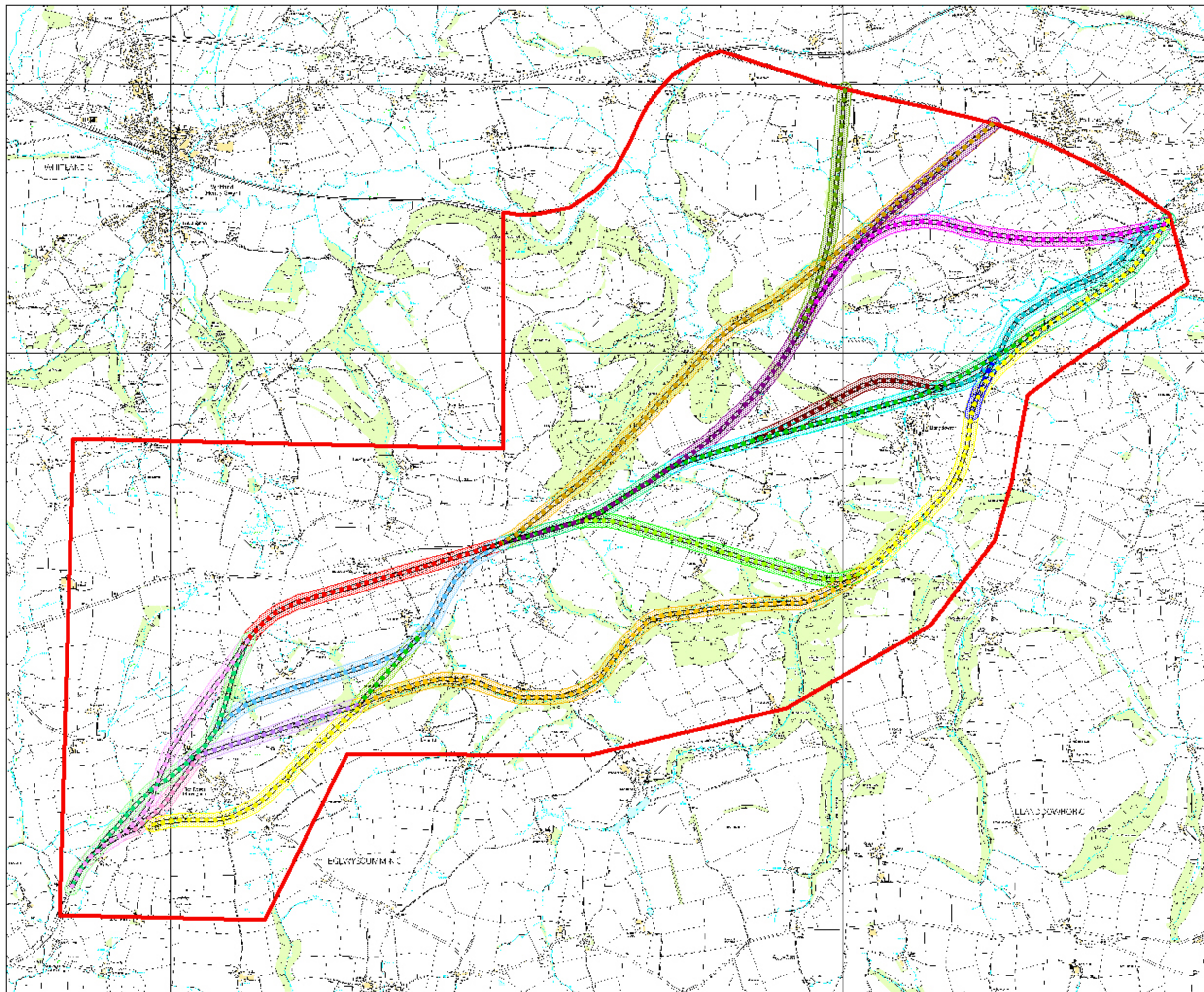


Figure 2:

All Route Segment Options

KEY

- SEGMENT C1 (Fig 3)
- SEGMENT C2 (Fig 4)
- SEGMENT C3 (Fig5)
- SEGMENT C4 (Fig6)
- SEGMENT C5 (Fig7)
- SEGMENT E4 (Fig8)
- SEGMENT E4.1 (Fig 9)
- SEGMENT E4.2 (Fig10)
- SEGMENT E5 (Fig 11)
- SEGMENT E5.1 (Fig 12)
- SEGMENT E6 (Fig13)
- SEGMENT E6.1 (Fig 14)
- SEGMENT E6.2 (Fig 15)
- SEGMENT E6.3 (Fig16)
- SEGMENT E6.4 (Fig 17)
- SEGMENT W1 (Fig18)
- SEGMENT W4 (Fig 19)
- SEGMENT W4.1 (Fig20)
- SEGMENT W4.2 (Fig 21)
- SEGMENT W5 (Fig22)

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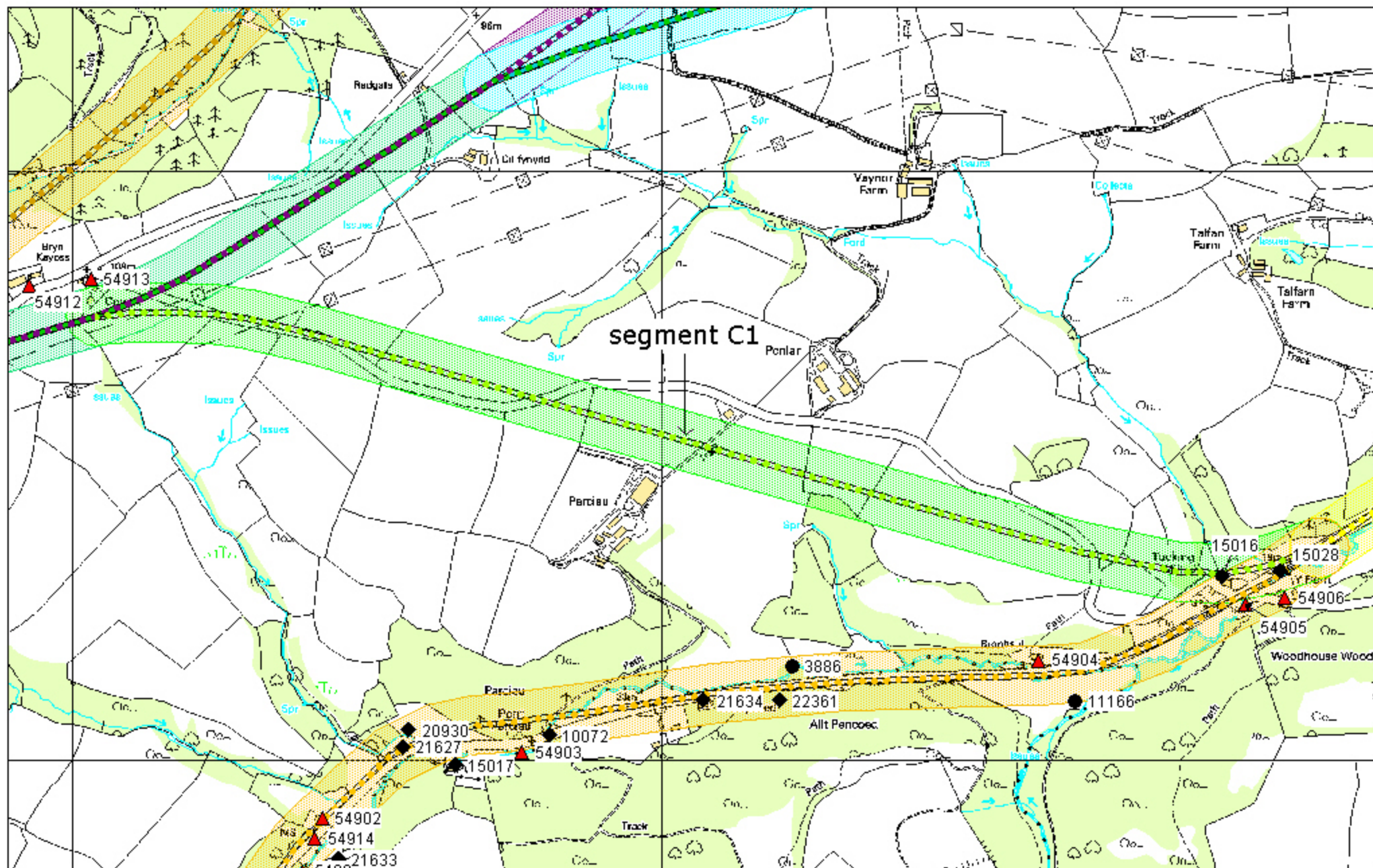


Figure 3: Road Segment C1

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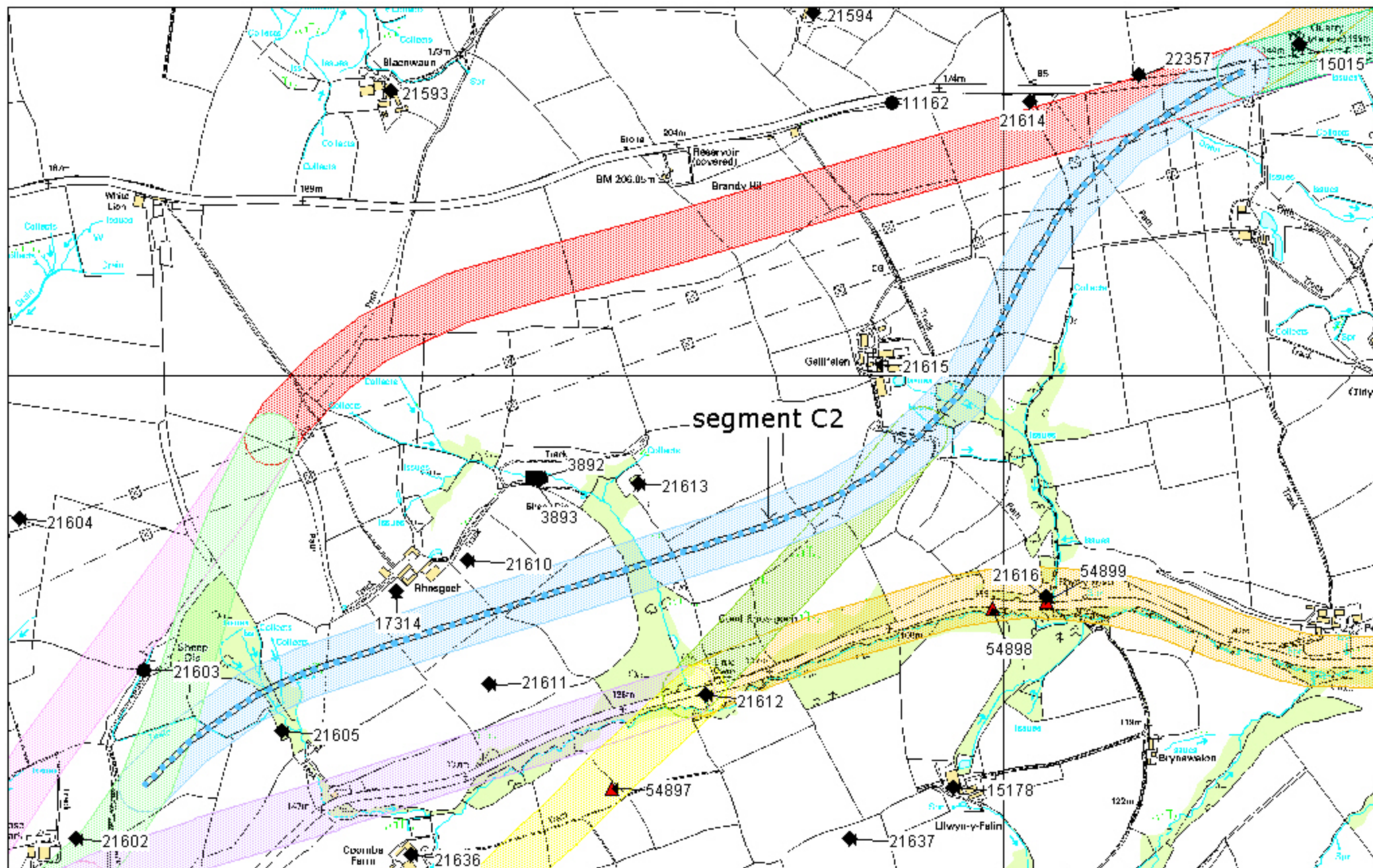


Figure 4: Road Segment C2

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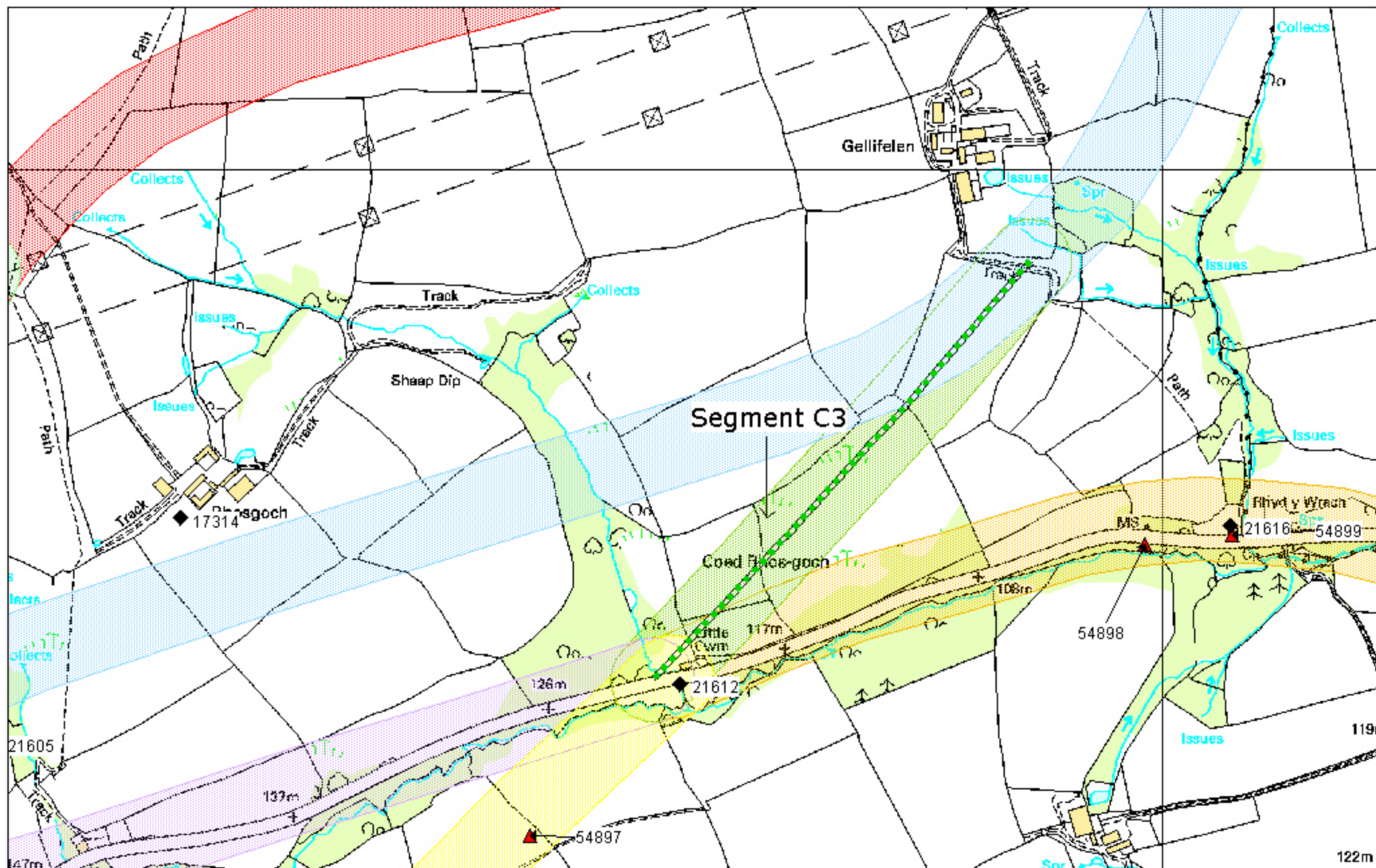


Figure 5: Road Segment C3

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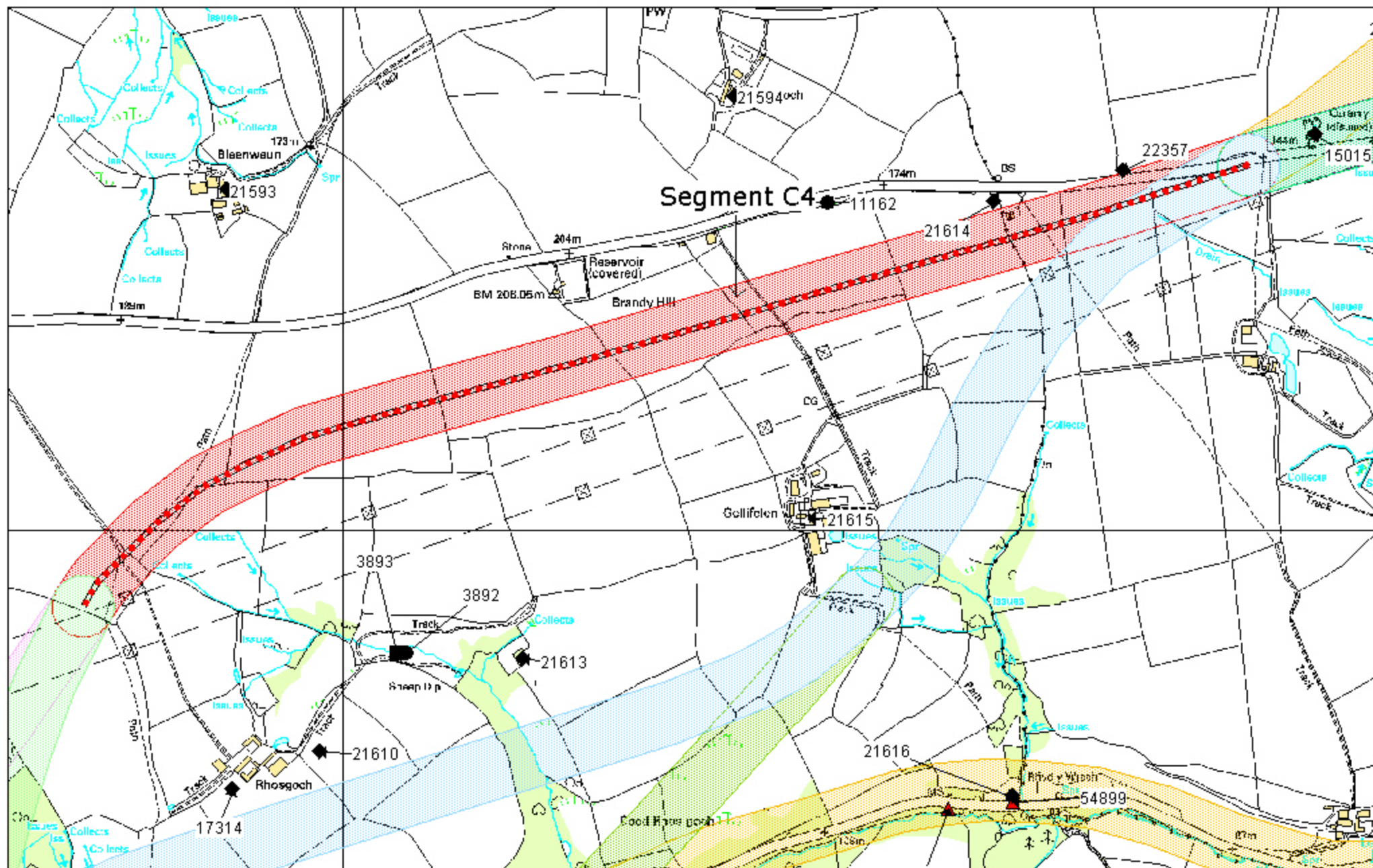


Figure 6: Road Segment C4

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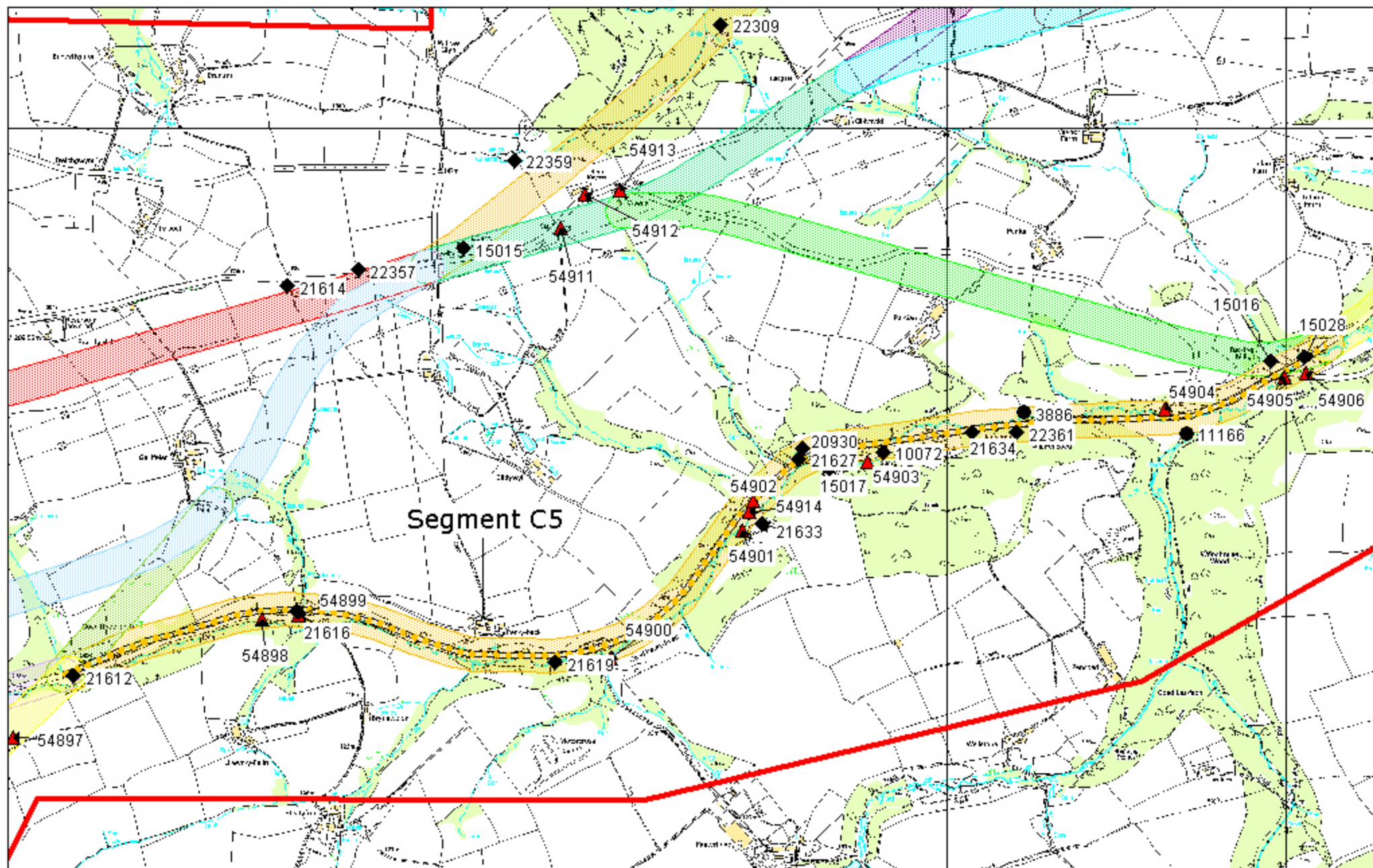


Figure 7: Road Segment C5

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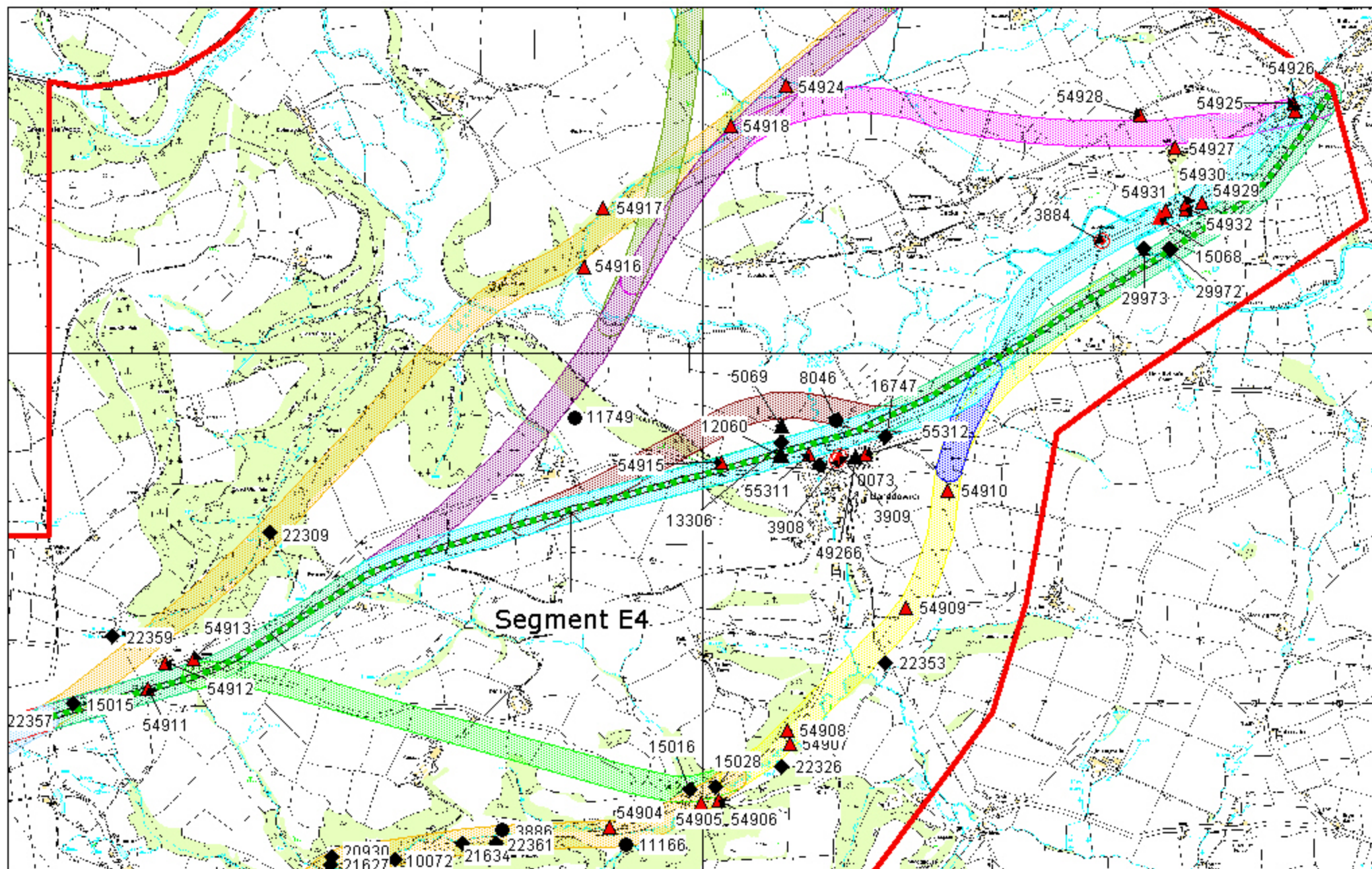


Figure 8: Road Segment E4

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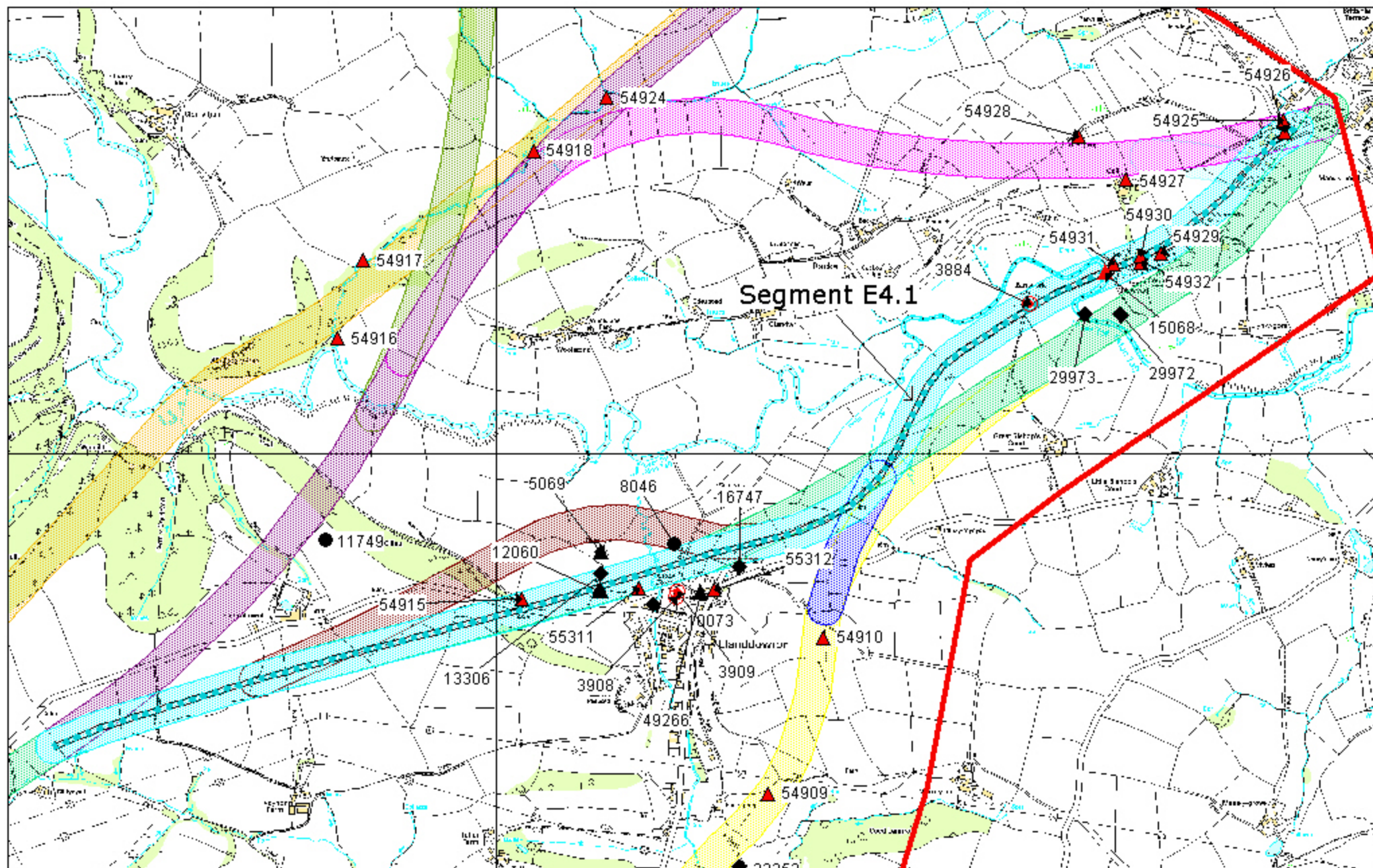


Figure 9: Road Segment E4.1

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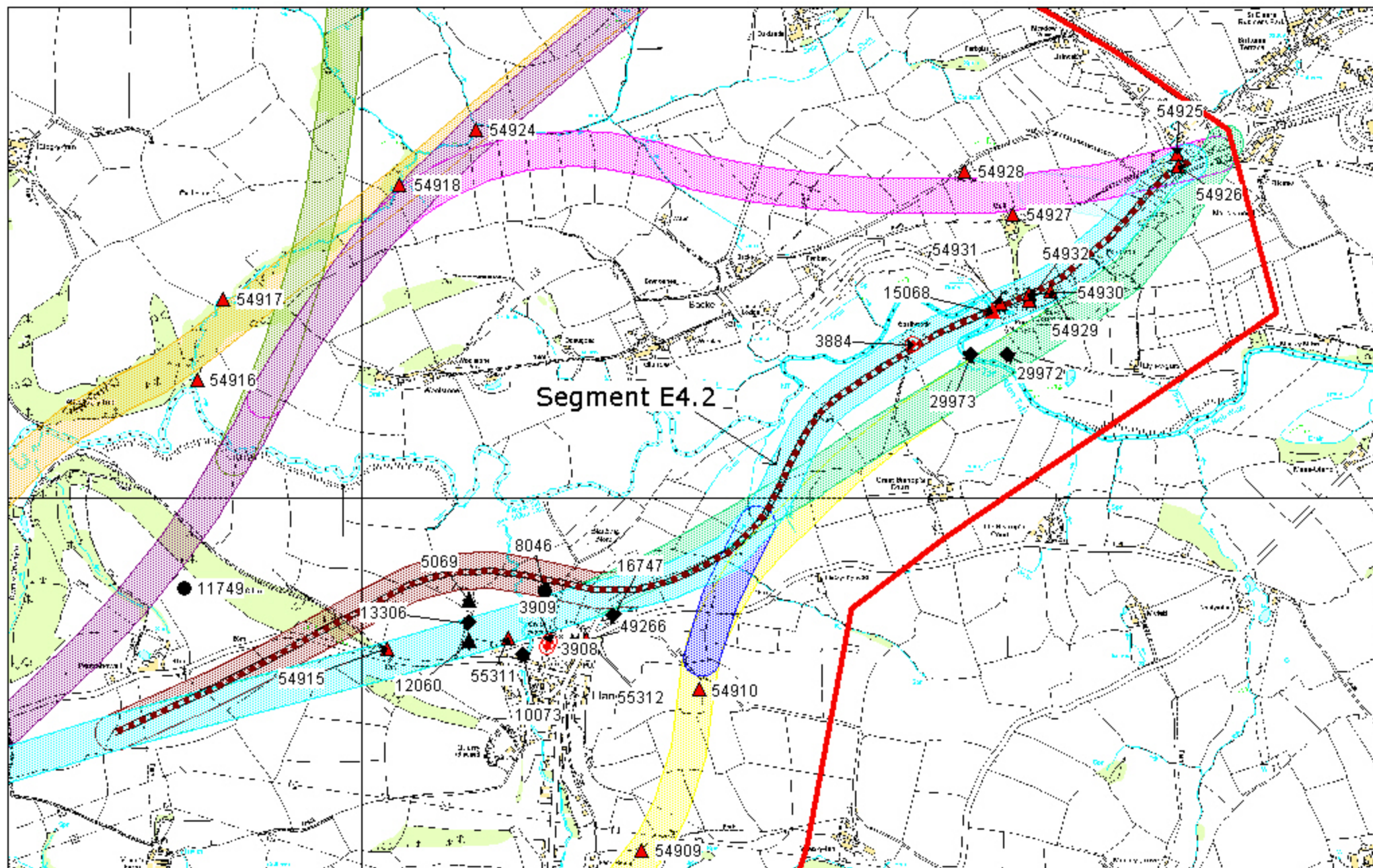


Figure 10: Road Segment E4.2

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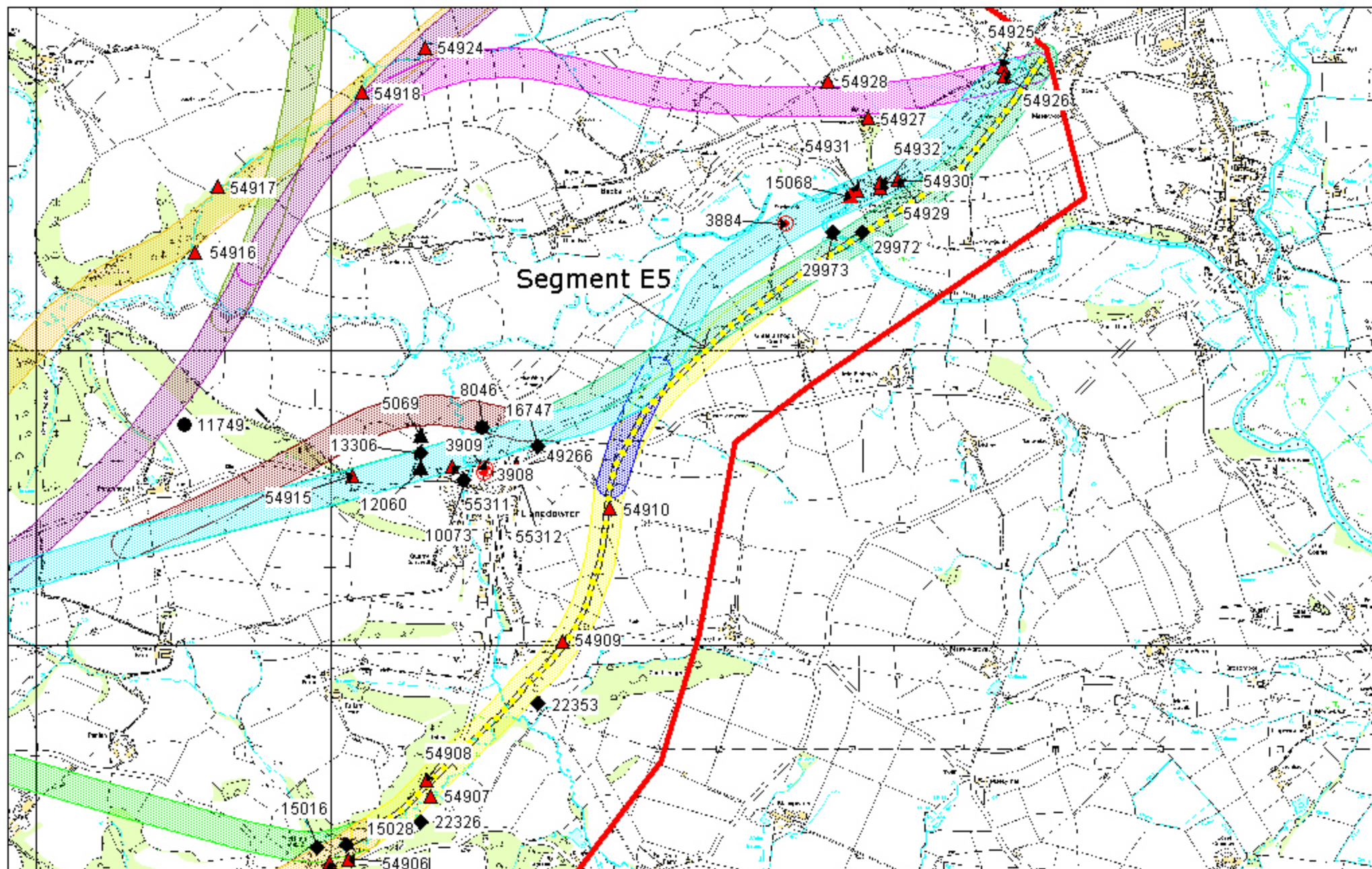


Figure 11: Road Segment E5

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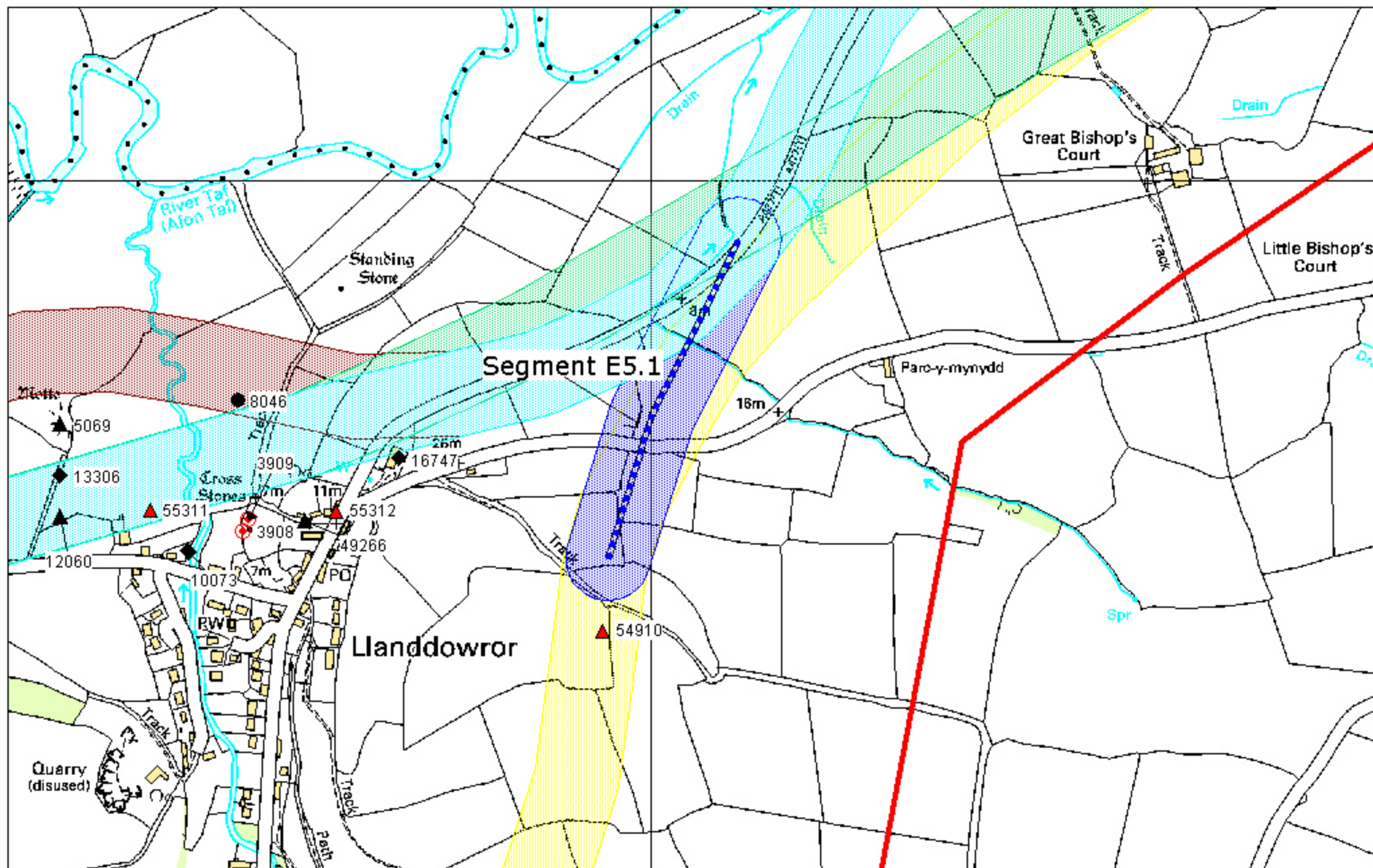


Figure 12: Road Segment E5.1

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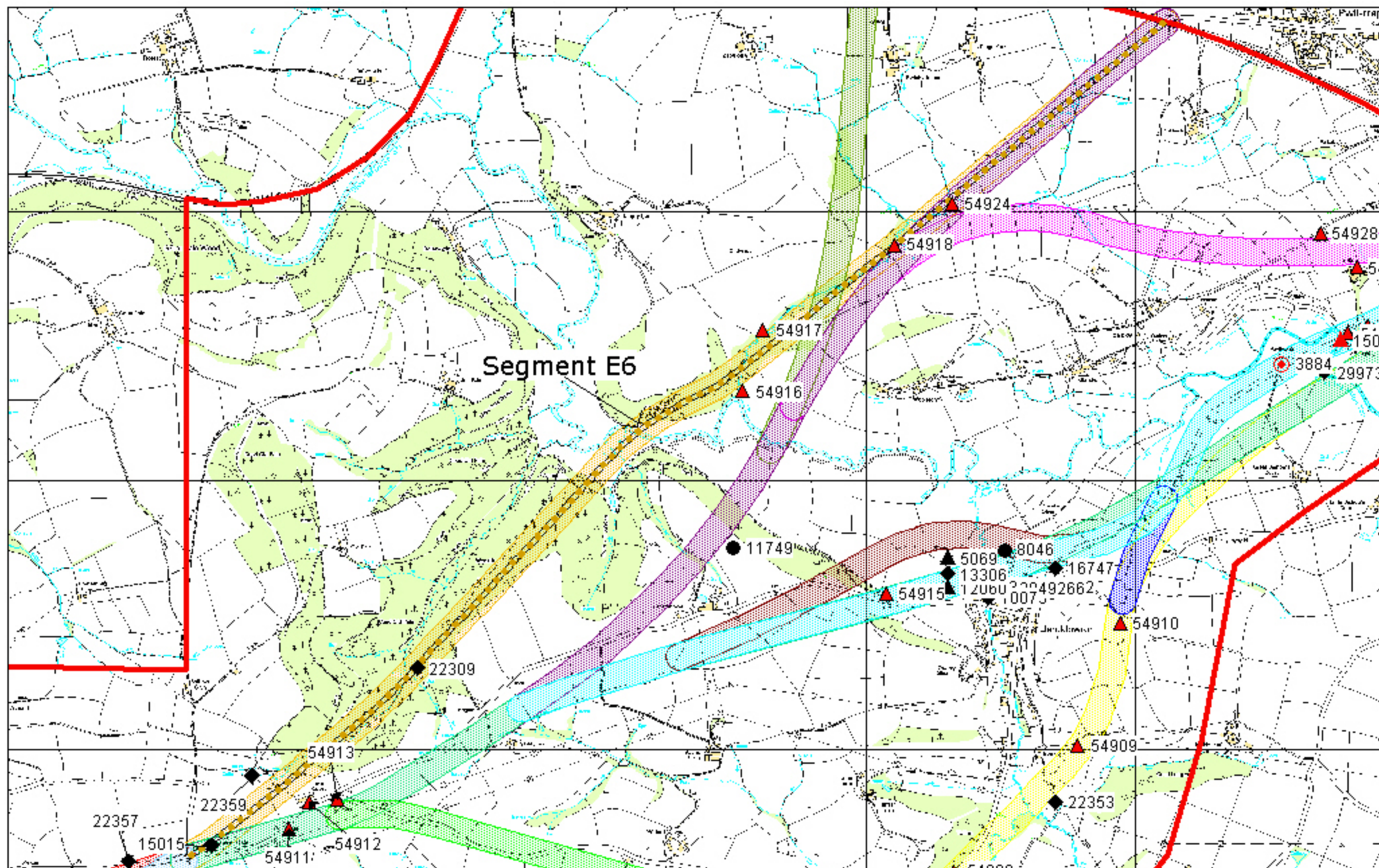


Figure 13: Road Segment E6

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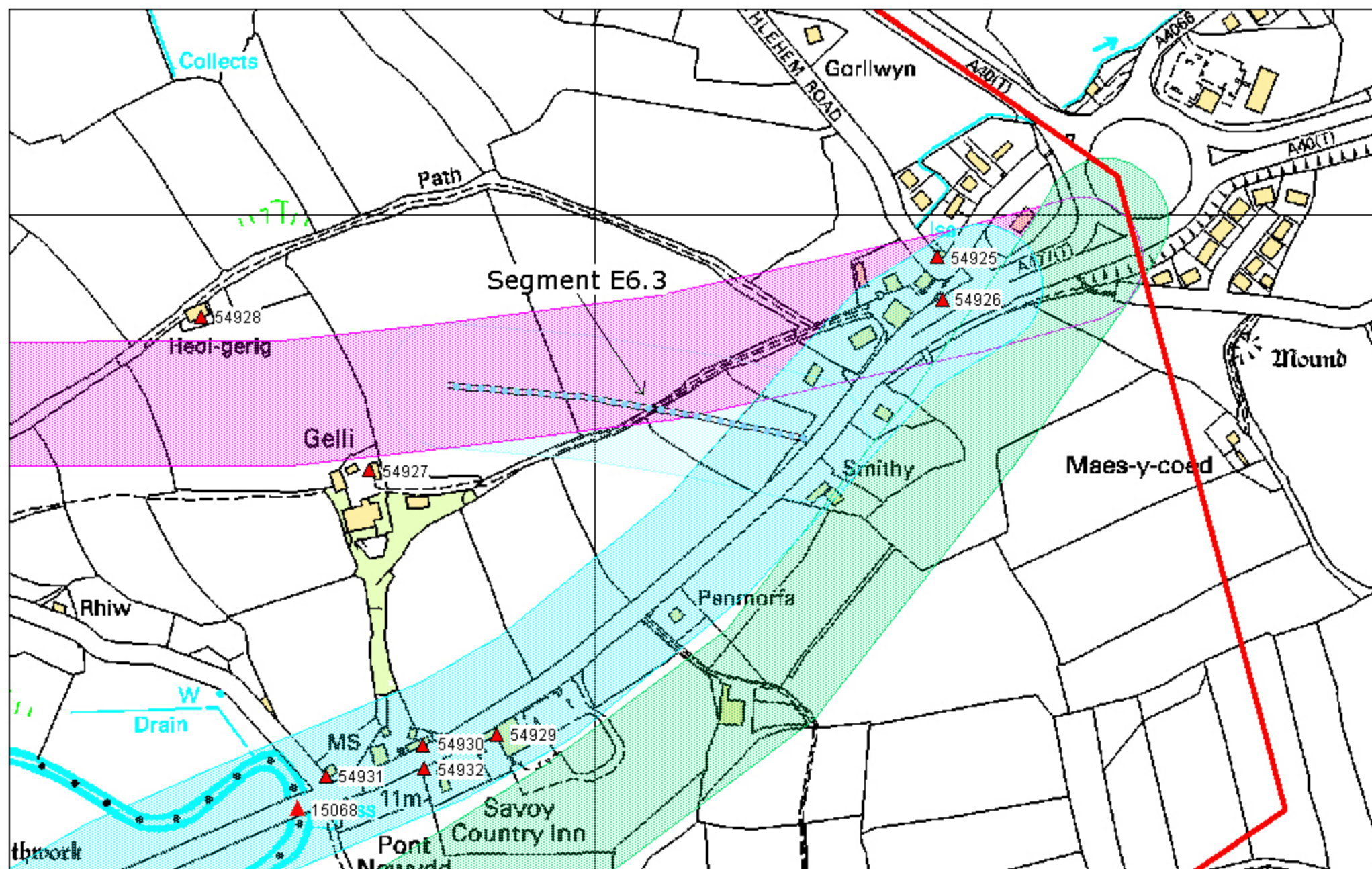


Figure 16: Road Segment E6.3

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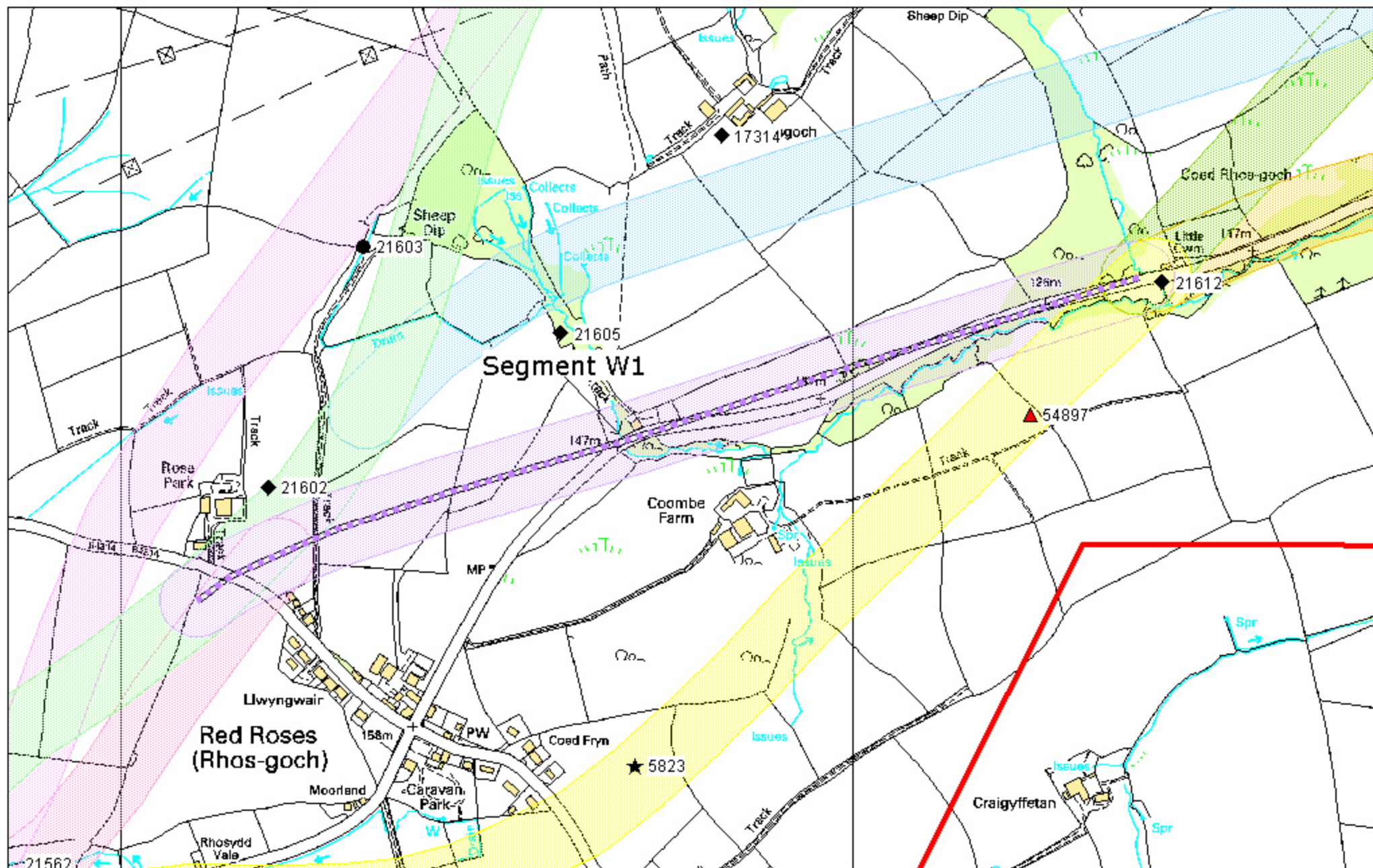


Figure 18: Road Segment W1

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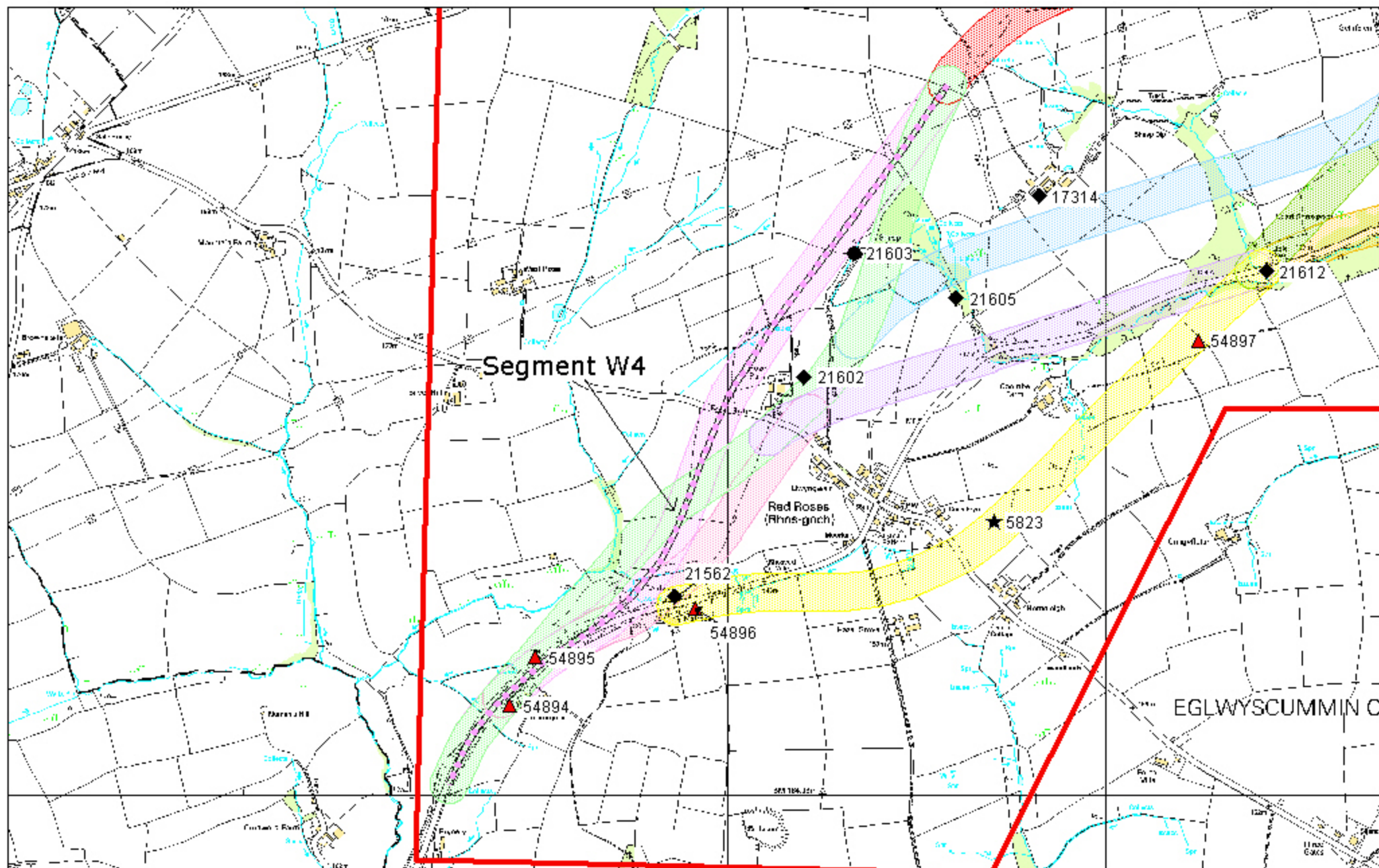


Figure 19: Road Segment W4

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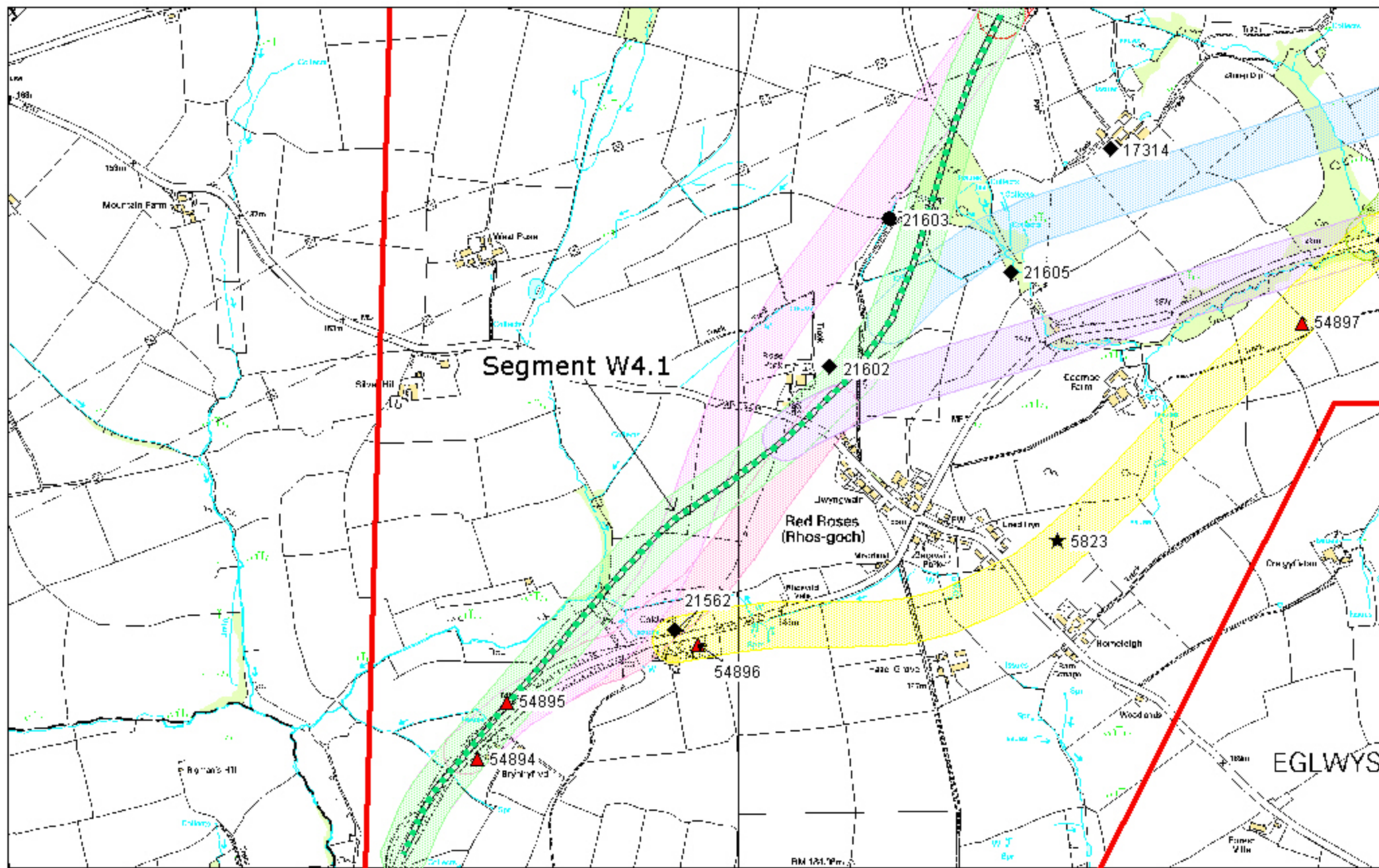


Figure 20: Road Segment W4.1

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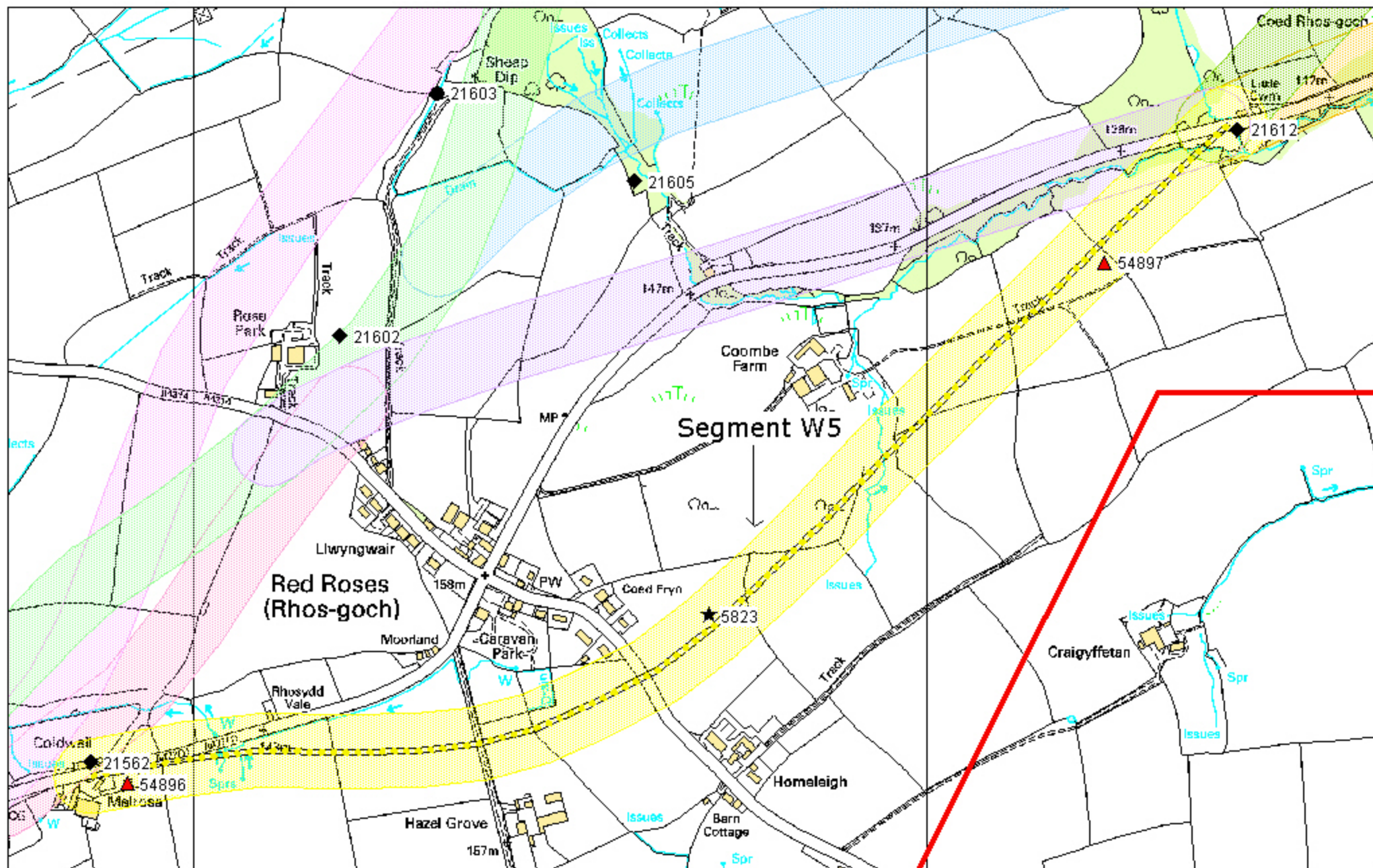


Figure 22: Road Segment W5

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Figure 23:

All Route Segment Options

KEY

- SEGMENT C1 (Fig 3)
- SEGMENT C2 (Fig 4)
- SEGMENT C3 (Fig5)
- SEGMENT C4 (Fig6)
- SEGMENT C5 (Fig7)
- SEGMENT E4 (Fig8)
- SEGMENT E4.1 (Fig 9)
- SEGMENT E4.2 (Fig10)
- SEGMENT E5 (Fig 11)
- SEGMENT E5.1 (Fig 12)
- SEGMENT E6 (Fig13)
- SEGMENT E6.1 (Fig 14)
- SEGMENT E6.2 (Fig 15)
- SEGMENT E6.3 (Fig16)
- SEGMENT E6.4 (Fig 17)
- SEGMENT W1 (Fig18)
- SEGMENT W4 (Fig 19)
- SEGMENT W4.1 (Fig20)
- SEGMENT W4.2 (Fig 21)
- SEGMENT W5 (Fig22)
- Scheduled Ancient Monuments
- Listed Buildings

