

**TOWN & COUNTRY PLANNING (INQUIRIES PROCEDURE) (ENGLAND) RULES 2000**

**APPEAL REF: APP/D0840/A/09/2113075/NWF**

**Land at Rostowrack Farm, Wheal Remfry, Goonvean and Parkandillick Dryers, St Dennis,**

**St Austell**

**Transport Proof of Evidence of Jeremy Penfold MIHT AMICE AMIStructE**

On behalf of SITA Cornwall Limited

February 2010

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# Contents

<b>1</b>	<b>The Witness.....</b>	<b>1</b>
<b>2</b>	<b>Scope of Evidence.....</b>	<b>2</b>
<b>3</b>	<b>Transport Strategy.....</b>	<b>3</b>
<b>4</b>	<b>Policy Compliance.....</b>	<b>11</b>
4.1	Waste Local Plan .....	11
4.2	Planning policy guidance ppg13 .....	15
4.3	Cornwall county council local transport plan .....	16
<b>5</b>	<b>Alternative Scenarios .....</b>	<b>17</b>
5.2	Two sites.....	19
5.3	Five sites.....	20
5.4	No CERC .....	22
5.5	Whole Life Assessment.....	24
5.6	Sensitivity Test.....	27
<b>6</b>	<b>Rail Access.....</b>	<b>30</b>
<b>7</b>	<b>Footpaths.....</b>	<b>33</b>
<b>8</b>	<b>Conclusions .....</b>	<b>36</b>

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# Contents

## **APPENDICES – see Separate Volume**

### **APPENDIX JP-01 - Figures**

Figure JP-01 – Local Road Network and Access Proposals

Figure JP-02 – South West Regional Freight Network

Figure JP-03 – EFW Location Scenarios

Figure JP-04 – Waste Flow Arrangements One EFW

Figure JP-05 – Waste Flow Arrangements Two EWF's

Figure JP-06 – Waste Flow Arrangements Five EWF's

Figure JP-07 – Landfill Sites for Waste Disposal in 'NO CERC, Scenario

Figure JP-08 – Alternative Scenarios – Indicative Catchments

Figure JP-09 – Waste Transfer Platform for Rail Access

Figure JP-10 – Waste Transfer Platform for Rail Access, Cross Section

### **APPENDIX JP-02**

Minutes of Cornwall County Council Environment Policy Development and Scrutiny Committee 17 January 2007

### **APPENDIX JP-03**

Whole Life Assessment Calculations

### **APPENDIX JP-04**

Minutes of meeting with Cornwall County Council WPA – 5 July 2007

### **APPENDIX JP-05**

Photographs of ACT system

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# 1 The Witness

- 1.1.1 I am an Incorporated Engineer, a Member of the Institution of Highways and Transportation, an Associate Member of the Institution of Civil Engineers and an Associate Member of the Institution of Structural Engineers. I have over 25 years experience in transportation and civil engineering.
- 1.1.2 I am a Technical Director with WSP UK, I have been employed by WSP since 1994, prior to that I was employed by a variety of engineering consultants, including SB Tietz and Partners and Travers Morgan.
- 1.1.3 My professional experience includes considering the transport impact of major developments, the design of infrastructure and the integration of non-car travel infrastructure into developments. My experience in the Waste and Energy sector has involved a variety of facilities including Power Stations, Waste from Energy incinerators, Gasification plants and Waste transfer stations.
- 1.1.4 I have been the Project Director for WSP's involvement in the CERC since September 2006, during which time we have worked with SITA to formulate the transport strategy for the site and have also dealt with other issues, such as flooding, hydrology and surface water drainage. I have also been Project Director for WSP's work direct for the WDA on the access roads and haul road.
- 1.1.5 The evidence which I have prepared and provide for this inquiry (reference APP/D0840/A/09/2113075) in this proof of evidence is true and has been prepared and is given in accordance with the guidance of my professional institute and I confirm that the opinions expressed are my true and professional opinions.

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## 2 Scope of Evidence

- 2.1.1 Within this proof of evidence I firstly summarise the transport strategy for the site, describing the key elements, namely the haul road and the access road. I then explain the traffic movements that result from the development and how these have been agreed with the relevant authorities.
- 2.1.2 I then demonstrate how the scheme complies with current transport policies, particularly the transport related elements of the Waste Local Plan and the County transport policies as expressed in the Local Transport Plan.
- 2.1.3 I then specifically address the alternative scenarios that have been considered for the waste strategy and have produced data tabulating the relative travel characteristics ie veh km's for the three scenarios of a CERC and a 2 or 5 site strategy and then go on to consider what the implications are for non-delivery of the CERC.
- 2.1.4 I have also considered the particular requirements for rail access to the site and demonstrate that land is safeguarded to enable the site to be accessed via rail in the event of a county wide policy being implemented on the movement of waste by rail. I will also provide evidence that the current Cornwall Council polices do not anticipate the use of rail in the immediate term and that therefore the construction of the facilities at this stage would be premature, but can be provided in the future.
- 2.1.5 Finally I address how the infrastructure provided accommodates the requirements of the network of footpaths, maintaining connectivity.

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## 3 Transport Strategy

3.1.1 The strategy for the transport of waste to the CERC has two elements, firstly the access to the site for road vehicles and secondly the ability in the future for the transfer of waste and process arisings by rail. The detail of the scope for rail access is dealt with later in this proof.

3.1.2 The detail of the infrastructure required for road access was discussed at length with officers at Cornwall County Council and agreed prior to the planning committee meeting on 26 March 2009, allowing the Planning Officers report (CD B1) to state on page 52, that:

*'Whilst there has been an appreciable level of public concern regarding highway safety it is not considered that the operation of the facility would worsen the situation to an unacceptable level. Both the Highways Agency and the County Highways and Transportation Engineer raise no objections to the proposal on highway capacity or safety grounds. It is therefore considered that the local highway network, with the additional mitigation measures proposed, would be able to accommodate the type and volume of traffic that would be generated as a result of the proposed development.'*

3.1.3 The transport strategy has been formulated on the basis that the Cornwall Energy Recovery Centre (CERC) will have the capacity to process up to 240,000 tonnes of waste each year.

3.1.4 A large proportion of waste will be transferred directly from Recycling Centres (RC) and Refuse Transfer Stations (RTS) sites into the plant. The remainder is direct delivered by Roadside Collection vehicles (RCV).

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- 3.1.5 There will be a number of vehicle movements from the EfW plant associated with the disposal of incineration by-products, these being Fly Ash and Bottom Ash. Fly Ash will be transferred to a specialist facility located outside of the county. Bottom Ash is an inert by-product that can be used as aggregate and will be distributed to local recycling markets.
- 3.1.6 Vehicular access from the Primary Route Network will be via the A30 Highgate Hill Interchange, the Gaverigan roundabout and New Stamps Hill (C184). A new private haul road will be constructed with an access approximately 1.5km south of the Gaverigan Roundabout. This route will cross the River Fal via a new bridge to the west of Trerice Bridge and continue through the IMERYS Wheel Remfry China Clay Works linking back into the C184, approximately 250m to the west of La Mount Corner. The private haul road is approximately 2km in length. These routes are illustrated on Figure JP01.
- 3.1.7 The layout for the haul road (only to be used by HGV's) was developed in a way that maximised the use of the existing tracks, so that the impact on the adjacent landscape could be minimised and also so that the haul road could be operated independently of the adjacent clay works.
- 3.1.8 The northern part of the route was particularly constrained by a number of water, landscape and operational features, The principal water feature is of course the River Fal and it was necessary to ensure that the crossing of the Fal would be in a location and form that did not have a negative impact on the water environment. In landscape terms there is the Trerice Bridge and the existing trees alongside the Fal and adjacent to the existing tracks. Operationally there is a lagoon and connecting

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water features and the various buildings operated by Imerys, as well as the wider area of china clay workings.

- 3.1.9 Threading the route through all of these features, whilst maintaining a functional route for the haul road required a balance of impact, it was agreed with Imerys that a route utilising the existing tracks to the east of their buildings would provide a minimal impact on their activities, we also looked to locate the new bridge so that it did not visually impair the existing Trecice Bridge, whilst still accommodating the various requirements of the Environment Agency. There are also heritage issues associated with the bridge that are addressed in Mr Trehys evidence.
- 3.1.10 The resulting route used the existing access from the public highway with improvements to the existing track, crossed the Fal on a new bridge and ran down the eastern edge of the lagoon and along the eastern side of the Imerys buildings using the existing track. This removed the need to make any changes to the lagoon and its associated features and minimised the length of haul road that was not based upon existing tracks.
- 3.1.11 The route then follows the existing track before turning to the east to re-join the C184, As with the northern section, we have looked to make as much use as possible of the existing tracks in the area and the resulting alignment has been threaded through a number of constraints including existing electricity poles, ditches and trees.
- 3.1.12 The haul road will be 6.5m carriageway with widening on the bends where necessary to accommodate passing vehicles. This was the result of discussions during the progress of the application with Cornwall County Council, following the

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initial submission where some parts of the route were single track with passing places. The haul road will not be adopted highway, but will be owned and maintained by Cornwall Council as WDA.

- 3.1.13 The details of the surface water drainage strategy for the haul road and the design constraints for the new bridge have been agreed with the Environment Agency.
- 3.1.14 The construction of the haul road will be conventional highway construction with black top surfacing. The haul road and its junctions with the C184 are not required to be lit.
- 3.1.15 The vertical alignment of the haul road has been agreed with Cornwall County Council and has a maximum gradient at 1 in 8 (12.5%) for a very short section and the remainder of the road is designed at a minimum of 1:10 (10%).
- 3.1.16 Vehicular access to the site itself will be provided from the C184 at La Mount Corner. A new priority junction will be introduced linking the new access road with the site entrance.
- 3.1.17 The access road has been designed to adoptable standard and will be adopted . It will be constructed of conventional highway construction with blacktop surfacing. The widening of the carriageway at the bottom of the access road, which accommodates the weighbridge, is such that, large vehicles are able to either undertake a u-turn or three point turn if required. The layout of the access road has been agreed with Cornwall County Council prior to the application being considered at committee. The access road and its junction with the C184 will not be lit.

3.1.18 The majority of the waste vehicle trips associated with the CERC are not new trips and are currently utilising the Cornwall road network in the daily transfer of waste. The introduction of the CERC will therefore result in a redistribution of waste vehicles within the county's road network.

3.1.19 The daily waste vehicle trips to site have been based upon information relating to the movement of waste within the county provided by SITA Cornwall and Cornwall County Council as the Waste Disposal Authority. The assessment of these results in a typical daily waste vehicle trip generation as shown in the following table:

**TABLE 3.1**

*CERC – Predicted Daily Waste Vehicle Trip Generation*

Trip Type	Arrivals	Departures	Total
Waste vehicle (import)	72	72	144
Waste vehicle (export)	20	20	40
On-site recycling (import)	14	14	28
On-site recycling (export)	2	2	4
Total	108	108	216

3.1.20 The site will generate staff, operational and visitor trips in addition to the waste vehicle trips. The assessment in this report derives a typical daily other vehicle trip generation as shown in the following table:

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**TABLE 3.2***CERC – Predicted Daily Other Vehicle Trip Generation*

Trip Type	Arrivals	Departures	Total
Service deliveries	5	5	10
Staff	61	61	122
Visitor Coach	1 (per week)	1 (per week)	2 (per week)
Total	67	67	134

- 3.1.21 The figures given within the two tables result in the overall level of 175 trips each way in a typical day, or 350 total trips as agreed in the Statement of Common Ground.
- 3.1.22 There are predicted to be around 61 staff at the site on a daily basis. Around 35 of these staff will be office based working a typical 0900-1700 day Monday to Friday. The other staff will be involved with the operation of the waste facility on a shift basis so that the CERC operates for seven days a week. The staff vehicle will be spread throughout the day in association with the staff shift patterns. The Construction Stage and Operational Travel Plan have been agreed with CCC and the initiatives within that will encourage the reduction of private car use.
- 3.1.23 The routing of the vehicles accessing the site is critical to the impact of the proposals. The deliveries to the CERC will all be managed by SITA to ensure they comply with the routing arrangements that have been agreed with Cornwall County Council.
- 3.1.24 Waste vehicle drivers will be instructed to use the haul road through a detailed induction process prior to driving these routes. A signage strategy will also be incorporated within the local road network to inform drivers of the haul road

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entrance locations. The entrance to the haul road at both ends will be controlled by barriers and waste vehicles will be fitted with transponders to operate the barriers automatically.

- 3.1.25 The routing of vehicles will be controlled through a S106 agreement, this will state that the route for all vehicles arriving at CERC will be from the A30 Highgate Hill interchange where vehicles will travel south on the B3279 to the Gaverigan roundabout, then Stamps Hill (the C184) from the Gaverigan roundabout to the private haul road northern junction, then the private haul road from the northern junction to the southern junction, and then the C184 from the private haul road southern junction to the CERC access road junction at La Mount corner.
- 3.1.26 The exception to this will be for RCV's from the local area (which will be defined) who will deliver directly to the CERC. Within the S106 agreement there is also a description of the routes to be used from particular areas to drive to and from the A30.
- 3.1.27 The vehicular impact of the CERC has been considered at two strategic trunk road junctions, the A30 Highgate Hill Interchange and Penhale junction. These junctions maintain a significant level of reserve capacity in all scenario's tested including sensitivity tests. The impact of the traffic on the key junctions and routes has been agreed with the relevant highway authorities, the Highways Agency and Cornwall County Council, prior to the application being considered at the planning committee.
- 3.1.28 An internal car park area is provided with a total of 52 spaces to accommodate staff and any visitors to the site. There will also be secure cycle parking facilities to encourage cycling trips.

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3.1.29 A visitor centre will be present on site and there will be a maximum of one pre-arranged visit per day. It is likely that this visit will be via coach and therefore a coach space is provided within the car park arrangements.

3.1.30 It has been agreed with CCC as Highway Authority that there will be two travel plans associated with the proposals. The Operational Travel Plan covers the daily running of the CERC and will develop and monitor initiatives to encourage a reduction to the levels of private car use to the site. The Construction Travel Plan covers the construction period for the facility and measures will be developed and agreed with the relevant authorities to control vehicular trips to the site. This will be controlled by an appropriate condition.

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## 4 Policy Compliance

### 4.1 WASTE LOCAL PLAN

4.1.1 The Waste Local Plan (WLP), core document D5 considers the balance that is to be made between the proximity principle of managing waste arisings near to origin and providing facilities of sufficient scale. The geography of Cornwall and the limitations of the Primary Road network within the County are such that the locating the large facilities within a central area of Cornwall with a primary road access from the A30, along with access to the rail network is the most appropriate solution.

4.1.2 The road freight network designated by CCC, is given in Figure JP-02, this illustrates the function of the main routes within the County and leads clearly towards a conclusion that the most appropriate location for a large strategic waste facility, requiring hgv access from around the county and beyond, would be with access onto the A30 and located between the A39/A30 junction in the west and the A38/A30 junction in the east.

4.1.3 This need has been acknowledged in the WLP though the use of the Central Area of Search for the Energy from Waste facility as set out in chapter 5 para's 5.35 to 5.37 and formalised in Policy L6.

4.1.4 Within Policy L6 the specific transport related issues are

- a) *demonstrate reasonable proximity and accessibility to the Primary Route Network; and*
- b) *the Plant is to be served by rail;*

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4.1.5 Issue a) was the subject of considerable discussion with officers at Cornwall County Council during the planning application, as we were agreeing the form of road access that would be provided to the EFW. The access strategy has been set out in previously in this proof and this was agreed with Officers allowing the application to proceed to committee with no objection on Highway Grounds, this fact has been included in the SOCG and the WPA has acknowledged that L6 a) has been met.

4.1.6 Issue b) has been included in the Reasons for Refusal as an outstanding issue. Mr Greenwood has included in his proof discussion on the relative merits of the wording on this issue in the WLP and the WDF. From a technical perspective there are a number of pertinent points that need to be considered;

- a) Is there potential for the proposed EFW be served by rail ?
- b) Is transfer of waste within the county feasible by rail ?
- c) Are there compatible facilities at other waste sites within the county.?
- d) What is the policy framework within which waste by rail can be achieved ?
- e) What facilities can be provided within the site for rail access ?

4.1.7 I will deal with each of these points in turn.

4.1.8 Item a) - The proposed EFW site is immediately adjacent to the existing Minerals rail line which is currently used by the Parkandillick Dryers. This is a lightly used branch line which connects to the main rail line that runs through Cornwall to

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Penzance. This would provide the potential for an appropriate link to other waste facilities within Cornwall allowing waste to be transferred by rail.

The answer to a) is yes

- 4.1.9 Item b) – The WDA has had a number of studies carried out on the feasibility of transferring waste by rail and these have all concluded that it is feasible, although it would require substantial investment to achieve an appropriate network of compatible facilities around the County.

The answer to b) is yes

- 4.1.10 Item c) – The current locations of the various waste facilities within Cornwall do not include the ability to transfer waste by rail.

The answer to c) is no

- 4.1.11 Item d) – Within the various policy documents that are relevant to Cornwall there is a consistent requirement to ensure flexibility for transport by locating facilities within locations that are able to be accessed by rail. Within the Local Transport Plan 2006-2011 (CD D8) there is a supplementary document entitled 'Freight Strategy' dated February 2007. Within Chapter 2 of this document section 2.3.5 deals with Freight Studies and referring to the various reports prepared for the WDA and says

*'The assessment shows that it is technically feasible to move a substantial amount of Cornwall's residual domestic waste by rail. However, the present financial implications of a transfer to rail mean that it is not feasible for the short to medium*

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*term. That said it is extremely important that the site locations that would facilitate this are secured.'*

4.1.12 The Freight Strategy document then concludes with 4.3 in the paragraph entitled Waste by Rail

*'The studies undertaken for waste by rail have shown that it is technically feasible to move a substantial amount of Cornwall's residual domestic waste by rail.*

*We will seek to safeguard and protect potential sites that would facilitate the transporting of waste by rail in the future'*

4.1.13 Prior to the Freight Strategy being published, the Cornwall County Council Environment Policy Development and Scrutiny Committee held a meeting on 17 January 2007 at which the Freight Strategy was an agenda item. The minutes of that meeting (see Appendix JP-01) record the following.

*' Replying to further questions, the Transport Policy Manager advised that the County Council, not SITA had decided not to transport waste by rail as it would add £1m to the operating cost each year. '*

4.1.14 The committee minutes then note that it was –

*'**RESOLVED** that the Executive be asked to approve the Freight Strategy, as set out in Appendix A to the report by the Director of Planning, Transportation & Estates, as the County Council's policy statement in relation to freight distribution in Cornwall. '*

4.1.15 The answer then to item d) is that taking account of all of the above policy comments, it is clear that whilst rail transfer is feasible and certainly an aspiration,

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the County Council did not consider that it's delivery by SITA for the EFW was required and indeed directed that it shouldn't be.

- 4.1.16 It could also be concluded that the ability to secure the potential for rail access should not be lost and that therefore the decision to refuse the application is contrary to policy.
- 4.1.17 Item e) – The detail of the facilities that can be provided at the site is set out in Section 6 of this proof of evidence.
- 4.1.18 The planning policy issues associated with the Waste Local Plan are dealt with in Mr Greenwoods proof.
- 4.1.19 It should also of course be noted that the Fichtner report (CD O1) endorsed the fact that the CERC proposal compiles with the Waste Local Plan.

## **4.2 PLANNING POLICY GUIDANCE PPG13**

- 4.2.1 The key national planning policy guidance relevant to transport is Planning Policy Guidance 13 'Transport' (PPG13) core document E10, which promotes development that provides opportunities for sustainable travel, the key objectives being:

*Promote more sustainable transport choices for both people and the movement of freight*

*Promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling; and*

*Reduce the need to travel, especially by car.*

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4.2.2 The strategy for the site as set out in section 6 of this proof demonstrates the ability to provide rail access in the future. The agreement of the Transport Assessment with Cornwall County Council includes the delivery of the Travel Plans for both Construction stage and Operational traffic, ensuring that where possible opportunities for non-car travel are maximised.

### **4.3 CORNWALL COUNTY COUNCIL LOCAL TRANSPORT PLAN**

4.3.1 Within the section on the Waste Local Plan I have discussed how the Freight Strategy document, which is part of the Local Transport Plan relates to the policy on rail access for the EFW. Through this discussion I have demonstrated that the location of the site and the ability to accommodate a suitable waste by rail facility in the future complies with the Council policy as expressed in the Freight Strategy.

4.3.2 The other aspect of the Freight Strategy is ensuring that heavy goods vehicles use the most appropriate roads. Within the transport strategy for the site, I have set out that the principal access for the waste vehicles will be via the Highgate junction on the A30. The routing of vehicles to this junction will be controlled through a routing agreement secured via a S106 agreement. This has already been agreed with the Highway Officers at Cornwall Council and was an important element of the negotiation to enable them to support the application.

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## 5 Alternative Scenarios

5.1.1 Within the Waste Local Plan it is clear that the strategy to be delivered is a single site EFW, located within the defined central area of search, the CERC clearly meets this criteria. It is therefore puzzling that the question of alternative scenarios has even been raised within Cornwall's Council's case. It has however been raised and I therefore address the transport implications of potential alternatives.

5.1.2 The starting point is the WRATE assessment, the methodology of which is set out within the proof of Simon Aumonier. The transport input to that for the multiple site options has been summarised below.

5.1.3 The assessment was undertaken to establish the total daily laden vehicle mileage associated to a single EFW, two EFW's and five EFW's. The locations of the plants are as follows and are also shown on Figure JP-03.

- f) Single 240,000 tpa EFW at Rostowrack Farm
- g) Two 120,000 tpa EFWs at Connon Bridge and United Mines
- h) Five 48,000 tpa EFWs at Connon Bridge, United Mines, Rostowrack Farm, St Erth and Launceston.

5.1.4 The overall average daily laden vehicle mileage was assessed for 2012, estimated as the year of opening.

5.1.5 SITA Cornwall has provided a summary of the number of loads per day that are transferred between the various sites in their control when one EFW is operational

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at Rostowrack Farm. The waste flow arrangement for one EFW is shown on Figure JP--04

- 5.1.6 The layout of facilities assumes an RTS located at Scorrier which at the time of the CERC planning application was also proceeding through planning. The application for this has subsequently been withdrawn, It is however likely that an RTS facility in that location will still be required and has therefore been maintained in the analysis.
- 5.1.7 The number of loads on each route has been multiplied by the route distance and all route mileages have been summed to provide an overall average daily mileage.
- 5.1.8 Bottom ash is a recyclable by-product and is distributed to local markets. It is difficult to assess where these local markets will be and therefore the daily mileage associated to these movements has not been considered.
- 5.1.9 A large proportion of trade waste is delivered to RTS sites by independent contractors. Therefore it is difficult to quantify the vehicle mileage associated to trade waste transport prior to arrival at an RTS. As a result this assessment only considers trade waste vehicle mileage from RTS sites to disposal sites. The majority of trade waste is delivered to RTS sites from local areas and therefore it is likely that the mileage will be very similar for one, two or five EFWs.
- 5.1.10 In addition to the waste flow shown on Figure JP-04 there will be recyclable kerbside collections delivering from north Restormel to the on-site recycling centre at the CERC. This recyclable waste will be bulked at the CERC and then transferred to Bodmin MRF.

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5.1.11 WSP have adjusted the loads per day information provided by SITA for one EFW at Rostowrack Farm to reflect the number of loads per day that are transferred between the various sites in SITA's control if two or five EFWs were operational. The methodology of how the loads per day figures have been adjusted to provide an overall average daily mileage for two and five EFWs has been confirmed by SITA and is set out below:

## **5.2 TWO SITES**

5.2.1 To assess waste flow into two EFWs at Connon Bridge and United Mines the same flow arrangement that was in operation until Connon Bridge was mothballed in 2007 has been used where applicable.

5.2.2 The flow into the two landfills at these sites prior to the Connon Bridge mothballing is very similar to the theoretical flow into two EFWs in the same position. Some flows have been removed and some have been added to account for certain RC/RTS sites opening and closing between 2007 and 2012.

5.2.3 The level of waste being transferred from Scorrier RTS to United Mines creates an excess over and above the 120,000 tpa capacity at United Mines EFW. This excess has therefore been routed to Connon Bridge. The resulting waste flow arrangement is shown on Figure JP05.

5.2.4 The recyclable kerbside collections from north Restormel would deliver to Bodmin MRF directly in this scenario.

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5.2.5 The number of loads on each route has been multiplied by the route distance and all route mileages have been summed to provide an overall average laden daily mileage.

### **5.3 FIVE SITES**

5.3.1 To assess waste flow into five EFW's the waste from the nearest RC/RTS sites has been assumed to route into each EFW. As a result of that, some of the EFWs are over capacity and some are under capacity, it was therefore necessary to make some adjustments to the routing of waste.

5.3.2 The level of waste being transferred from Scorrier RTS to United Mines creates an excess over and above the 48,000 tpa capacity at United Mines EFW. This excess has been routed to St Erth EFW, Launceston EFW and Rostowrack Farm EFW to bring them up to capacity. The remaining excess has been routed to Connon Bridge. The resulting waste flow arrangement is shown on Figure JP-06.

5.3.3 The recyclable kerbside collections from north Restormel will direct deliver to an on-site recycling centre at the Rostowrack Farm EFW. This recyclable waste will be bulked at EFW and transferred to Bodmin MRF.

5.3.4 The number of loads on each route has been multiplied by the route distance and all route mileages have been summed to provide an overall average laden daily mileage.

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5.3.5 As a result of this assessment the following overall average laden daily mileages have been calculated:

TABLE 5.1 – Daily Laden Mileage for Options		
	MILEAGE	% DECREASE
ONE EFW	3365	-
TWO EFW's	2986	11.2
FIVE EFW's	3022	10.2

5.3.6 The mileage calculated indicates that the two scenarios with multiple sites would deliver a reduction in waste mileage over the proposed single site scenario. This analysis however took no account of the traffic implications of construction or staff movements, or the servicing deliveries associated with the plants. It would be expected that a single site has the benefit of economies of scale, in relation to these additional movements.

5.3.7 This reduction in traffic for the multiple sites has also been considered in the Fichtner Report prepared for Cornwall Council (CD O11). That report considers a wider range of options, including alternative technologies. The full implications of that report are dealt with in Simon Aumoniers proof, However it's worth pointing out that the final ranking of sites places the single site EFW plant as the preferred option and that in the overall assessment on page 31 it is noted that

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*Between technologies, the single site options rank more highly than the multiple site options. This is because the transport advantages are outweighed by the increased costs and planning difficulties.*

## **5.4 NO CERC**

- 5.4.1 In addition to the input to the WRATE analysis I have then considered what happens if the CERC does not get delivered and the implications for that in terms of waste transport,
- 5.4.2 To address that we have considered a scenario for movement of waste that is essentially similar to the current arrangements, but on the basis of all of the residual waste having to go to landfill sites. The calculation of daily laden vehicle mileage is based upon local deliveries to the various RTS facilities and then from those to landfill sites around the South West.
- 5.4.3 With the limited spare capacity available at United Mines and Connon Bridge with limited capacity up to 2014, this scenario is assuming that all of the residual waste will go out of County. It is not possible at this stage to be categoric about which sites have spare capacity or are available for use and therefore I am presenting, the individual routes so that a visual comparison can be made. It is possible that there would only be limited spare capacity within various sites in the south west and that landfill sites further a field may have to be utilised.
- 5.4.4 The initial calculation of laden vehicle mileage to the County boundary is straightforward and using a similar methodology as for the multiple site

assessments, the equivalent daily figure to the point where the A30 crosses the Cornwall/Devon border is 4471 miles, which represents a 33% increase on the laden vehicle mileage for the CERC.

5.4.5 The potential landfill sites that could be used are illustrated on Figure JP-07, the respective mileages and approximate journey times are given below.

<b>TABLE 5.2 – POTENTIAL LANDFILL SITES WITHIN SOUTH WEST</b>		
<b>SITE</b>	<b>Distance from county boundary</b>	<b>Journey time</b>
Deep Moor, Torrington, Devon, EX38 7JA	52 miles	50 minutes
Heathfield, Newton Abbott, Devon, TQ13 0AP	50 miles	50 minutes
Broadpath, Uffculme, Devon, EX15 3EP	60 miles	1 hour
Dimmer, Castle Cary, Somerset, BA7 7NR	97 miles	2 hours
Walpole, Bridgwater, Somerset, TA6 4TF	86 miles	1 hr 25 mins
Trigon, Trigon, Wareham, BH20 7PA	112 miles	2 hr 15 mins
Beacon Hill, Corfe Mullen, Dorset, BH21 3RZ	117 miles	2 hr 20 mins
Shortwood, Shortwood, Bristol, BS16 9NN	128 miles	2 hr 10 mins
Blue Haze, Somerley, Ringwood, Hants, BH24 3QE	129 miles	2 hr 40 mins
Squabb Wood, Shootash, Romsey, Hants, SO51 6GA	147 miles	3 hours
Pound Bottom, Salisbury, Wiltshire, SP5 2PU	143 miles	2 hr 55 mins
Sands Farm, Calne, Wiltshire, SN11 8TF	157 miles	2 hr 41 mins
Compton Bassett, Compton Bassett, Wilts	155 miles	3 hours
Purton, Parkgate Farm, Swindon, Wilts, SN5 4HG	161 miles	2 hr 55 mins
<b>Average</b>	<b>116 miles</b>	<b>2 hr 15 min</b>

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5.4.6 The analysis on the various sites indicates that the distances to be travelled by waste vehicles in the event of the CERC not being delivered are considerable. If the average distance is applied to the total number of daily trips from the RTS facilities, which is 58 trips then the additional laden mileage is 6,728 miles per day. This gives a total of 11,199 daily laden miles, which is more than 300% higher than with the CERC. This illustrates that in transport terms the no CERC scenario would not be a sustainable alternative.

## **5.5 WHOLE LIFE ASSESSMENT**

5.5.1 In order to properly compare the alternative scenarios I have also looked at the laden vehicle mileage over the full extent of the operation of the plant, taking account of the timescales for implementation and the horizon year for reaching capacity at Connon Bridge landfill. The scenarios that have been considered are :

a) **CERC**

2010 - 2014 – to landfill  
2014 – 2035 – to CERC

b) **2 SITES**

2010 - 2014 – to landfill in Cornwall  
2014 – 2019 – landfill out of county  
2019 – 2035 – to new sites

c) **5 SITES**

2010 - 2014 – to landfill in Cornwall  
2014 – 2019 – landfill out of county  
2019 – 2035 – to new sites

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d) **NO CERC**

2010 - 2014 – to landfill in Cornwall

2014 – 2035 – landfill out of county

5.5.2 Within the scenarios there is an assumption of a 9 year period for any alternative sites to be delivered. This was a figure that was within the Fichtner Report (CD O11) and was queried at the Waste Development Advisory Panel meeting of 26 January 2010. Within the minutes of that meetings it is stated towards the bottom of page 6 that :

*The Head of Planning and Regeneration then advised that it would take around five to six years for a new Waste Local Plan to be put into place and to have a planning application considered by a Committee. If approved it could then take around two years for the procurement to take place, following which the building would need to be undertaken.*

5.5.3 It is clearly the view of Cornwall Council that a period of at least 9 years for implementation of alternatives is appropriate.

5.5.4 I have then considered a further sub-scenario with the impact of a potential extension to landfill at Connon Bridge requiring a further planning application, but which would take capacity up to 2017.

5.5.5 The calculations for this are set out in Appendix JP-02 the results are summarised below.

Mileage is calculated based upon a 5 day week for 52 weeks per year within the periods set out above

**1 CERC**

2010- 2014 – to landfill	3,514,735.57
2014 – 2035 – to CERC	18,370,761.32
	<b>21,885,496.89</b>

**2 2 Sites**

2010 -2014 – to landfill in Cornwall	3,514,735.57
2014 – 2019 – landfill out of county	14,559,211.46
2019 – 2035 – to new sites	12,422,369.21
	<b>30,496,316.24</b>

**3 5 Sites**

2010 -2014 – to landfill in Cornwall	3,514,735.57
2014 – 2019 – landfill out of county	14,559,211.46
2019 – 2035 – to new sites	12,572,051.88
	<b>30,645,998.92</b>

**4 NO CERC**

2010-2014 – to landfill in Cornwall	3,514,735.57
2014 – 2035 – landfill out of county	61,148,688.14
	<b>64,663,423.71</b>

**2A 2 Sites**

2010 -2017 – to landfill in Cornwall	6,150,787.25
2017 – 2019 – landfill out of county	5,823,684.58
2019 – 2035 – to new sites	12,422,369.21
	<b>24,396,841.04</b>

**3A 5 Sites**

2010 -2017 – to landfill in Cornwall	6,150,787.25
2017 – 2019 – landfill out of county	5,823,684.58
2019 – 2035 – to new sites	12,572,051.88
	<b>24,546,523.72</b>

**4A NO CERC**

2010-2017 – to landfill in Cornwall	6,150,787.25
2017 – 2035 – landfill out of county	52,413,161.26
	<b>58,563,948.51</b>

5.5.6 These figures illustrate that in road transport terms the alternatives are less favourable when considered over the life of the plant.

5.5.7 Finally on this matter of transport sustainability I have then also considered a possible change to the multi site scenarios as a sensitivity test.

## 5.6 SENSITIVITY TEST

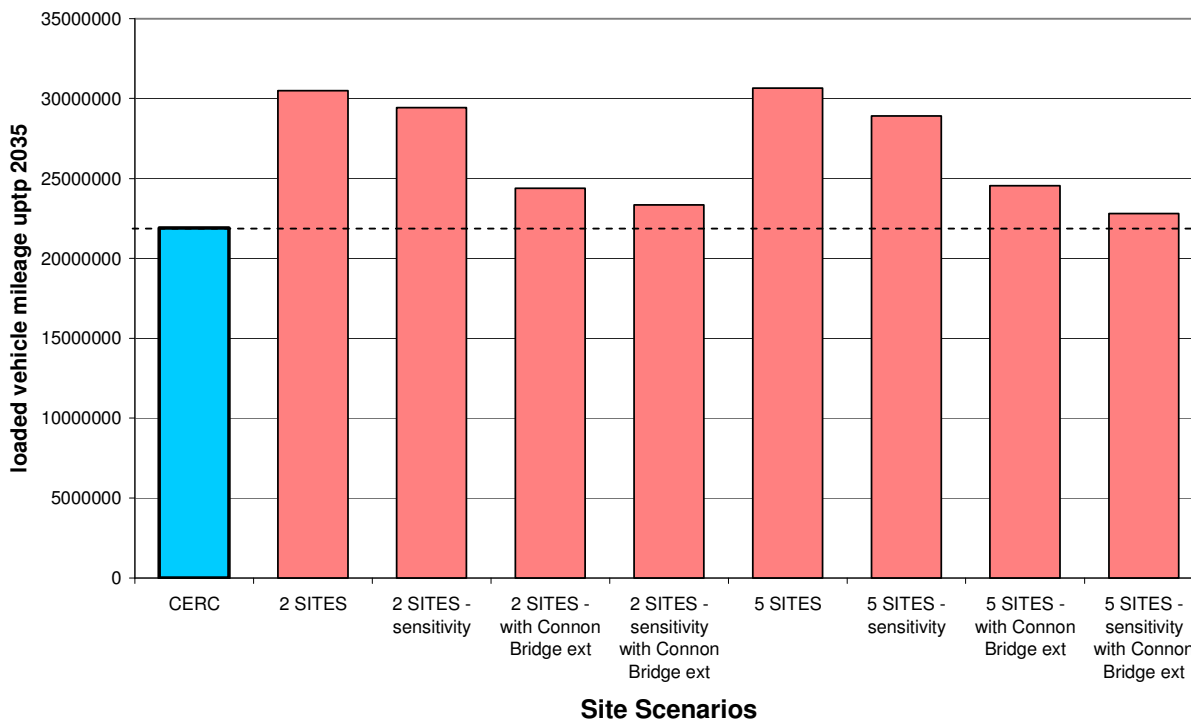
5.6.1 Inherent within the multi site options is the movement of waste around the county to deliver similar size facilities in each location. If this requirement is removed then waste can be dealt with nearer to the relevant RTS and hence the source. To model this I have taken a simplistic approach and assumed that all of the waste processed at Scorrier will be dealt with at United Mines, rather than transferred to Connon Bridge, St Erth, Launceston or Rostowrack, also that no waste will go from Connon Bridge to Launceston. Other movements remain the same. The indicative catchments are illustrated on Figure JP-08. The results of the calculation are given below:

<b>2</b>	<b>2 Sites</b>		<b>2A</b>	<b>2 Sites</b>	
	2010 -2014 – to landfill in Cornwall	3,514,735.57		2010 -2017 – to landfill in Cornwall	6,150,787.25
	2014 – 2019 – landfill out of county	14,559,211.46		2017 – 2019 – landfill out of county	5,823,684.58
	2019 – 2035 – to new sites	11,359,489.21		2019 – 2035 – to new sites	11,359,489.21
		<b>29,433,436.24</b>			<b>23,333,961.04</b>
<b>3</b>	<b>5 Sites</b>		<b>3A</b>	<b>5 Sites</b>	
	2010 -2014 – to landfill in Cornwall	3,514,735.57		2010 -2017 – to landfill in Cornwall	6,150,787.25
	2014 – 2019 – landfill out of county	14,559,211.46		2017 – 2019 – landfill out of county	5,823,684.58
	2019 – 2035 – to new sites	10,838,621.40		2019 – 2035 – to new sites	10,838,621.40
		<b>28,912,568.43</b>			<b>22,813,093.23</b>

5.6.2 I have illustrated the relative levels of loaded vehicle mileages for all of the alternatives suggested in the chart below, this demonstrates that in terms of overall transport sustainability the CERC remains the most favourable option. As previously stated this analysis does not take any account of construction traffic impact or of the

movements of staff and service vehicles. With a single site there will also be a positive economy of scale in these issues when considered alongside multiple site options.

### Alternative Strategies



5.6.3 The conclusion of this work that the single site represents the most sustainable option in transport terms, concurs with the view of the WPA in the planning committee report (CD B1), in which they said on page 41.

*I believe that the proposed single and central facility continues to be the most sustainable option for Cornwall*

5.6.4 Then having commented further on alternative strategies, concludes on page 42

*Overall I consider that in Cornwall having regard to the rural nature of the County, the spread of population and the functional relationship between the*

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*towns the current proposal is the most sustainable option in the context of all of the current and emerging Guidance, Plans and Policies.*

5.6.5 In the light of these comments expressed by the WPA in their planning committee report , which also represents a view confirmed by the calculations I have summarised, it is again necessary to state that it is surprising that this issue has been raised by Cornwall Council.

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## 6 Rail Access

6.1.1 As I have previously discussed under the policy compliance section, it is necessary to demonstrate that the site can be accessed by rail for waste transfer.

6.1.2 Cornwall County Council had a number of studies produced to consider the options for the rail access for Waste, the most recent of these were.

CAPITA Symonds – Waste by Rail Feasibility Report – Dec 2004 (CD P3)

Intermodality – Moving Cornwall’s Waste by rail - June 2007 (CD P4)

6.1.3 Both of the studies identified multiple sites that would be capable of forming a network of facilities for the movement of waste by rail across the county.

6.1.4 The Capita Symonds report considered transfer stations at Penzance, Truro, St Blazey and Moorswater. The conclusions of the report stated that it is feasible to move a substantial amount of waste by rail, but that further work was needed to investigate the network of sites and the relative levels of cost benefit. The report presented net present values (NPV) for the implementation which ranged from £15m up to £27m

6.1.5 The most recent Intermodality report looked at transfer stations being constructed at St Erth, Truro and Moorswater near Liskeard. The report concluded that the implementation would require £8m of investment and an annual operating cost of £2m. The report did not consider the wider implications of how the sites may integrate with the existing network of waste facilities or the planning implications of the suggested sites.

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- 6.1.6 These two reports demonstrate the potential for rail access for waste, but they also highlight that there are significant financial implications which would need to be met. I have previously stated in para 4.1.6 to 4.1.14 that the background for waste by rail is clear that for financial reasons the County Council had not asked SITA to include waste by rail as part of their proposals.
- 6.1.7 This was clarified in one of the consultation meetings with the WPA prior to submitting the application, at which it was agreed that illustrative information on the future provision of rail would be sufficient to meet the policy requirements. The minutes of this meeting are given in Appendix JP-03
- 6.1.8 The site is adjacent to the existing minerals branch line, which the previous CCC reports both state is appropriate for the transfer of waste. The rail line stops immediately to the east of the CERC site and there are sidings along the frontage of the adjacent Parkandillick Dryers.
- 6.1.9 The system that has been considered for inclusion on the CERC site is the Advanced Container Transfer (ACT) system. The basis of this system is the use of containers that are transferable between road lorries and rail trucks, allowing either incoming waste or CERC by-products to be moved by rail.
- 6.1.10 The system is widely used in waste facilities on the continent. I have included photographs of the system operating in Appendix JP-04. these illustrate the containers on a train and the transfer of the containers onto a lorry for tipping.

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- 6.1.11 The infrastructure requirements for the system at the CERC are a suitable area of hardstanding at rail level and sufficient manoeuvring space to allow lorries to access the hardstanding and circulate around the CERC. The CERC site has therefore been planned in a manner that will allow the construction of such a hardstanding along the southern boundary of the site, along with ramps to link in with the vehicle circulation routes around the site. This is illustrated on drawings JP-09 and JP-10
- 6.1.12 The layout shows that it is necessary to make some alterations to the roads and landscaping within the site to accommodate the hardstanding. It has always been anticipated that this would require a further planning application and these changes in layout would be addressed at that time. The changes are highlighted on the drawing and do not involve any alterations to the buildings they also do not affect the operation of the plant.
- 6.1.13 The concept of the rail facilities proposed and the use of the ACT system was discussed with the officers of the WPA, prior to the application being submitted and there were no subsequent clarifications sought through the Reg 19 process.
- 6.1.14 In the light of Cornwall Council's stated direction to the WDA and SITA not to include rail facilities. The flexibility that the location of the site and the current layout provides, would allow for future implementation and should provide sufficient comfort that the site is capable of being accessed by rail when appropriate levels of investment are made to facilities around the County.

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## 7 Footpaths

- 7.1.1 The issues of amenity, landscape and visual concerns associated with the footpaths are addressed within Gary Coulsons proof of evidence. I address the physical works that are necessary to implement the alterations to the network.
- 7.1.2 The principal impacts are in relation to footpaths 2 and 5, that are directly affected by the access road into the site and the main site layout. The principles of these alterations had all been discussed with the Cornwall Council public rights of way officer prior to the planning application being submitted.
- 7.1.3 A very clear explanation of the routes and necessary work was included in the Response to the Reg 19 request (CD A11) and illustrated in drawings provided in the Response to clarification request (CD A13) ,I give a summary below of the salient points.
- 7.1.4 Footpath 2 runs from the junction with footpaths 5 & 18 eastwards for some 400m to the junction with footpaths 14 and 5. It was originally discussed with the Council that the path would be diverted to run along the footway of the access road and that strategy was contained within the Planning application and the subsequent clarifications, drawings 30707 GA 603 rev B and 30707 GA 608 rev B in CD A13 illustrate the relative location of the routes.
- 7.1.5 It has however been set out in Mr Coulsons proof that it is not actually necessary to divert footpath 2 and that it can remain on its current line to the north of the access road. The footway will continue to be provided along the access road, as it is required for general pedestrian access to the CERC. The footway will therefore provide an alternative route for footpath users.

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- 7.1.6 Footpath 5 then runs across the fields to the end of the ramp to the Bodella railway bridge, across that and then runs parallel to the railway line. The footpath cuts across the line of the access road and then through the area that is safeguarded for future rail access. It is therefore necessary to divert the path along the access road and then around the edge of the development site.
- 7.1.7 Footpath 5 is therefore accommodated within the footway of the access road. As previously described the footway will have a bituminous construction and run along the northern edge of the access road. The access road and footway will be adopted and therefore constructed to adoptable standards.
- 7.1.8 The levels of traffic using the access road will be predominantly heavy goods vehicles, but in terms of frequency , there should be no more than 40 or so in any hour and for the majority of the day, traffic levels will be less than 30 goods vehicles or an average of one every two minutes. This level of traffic is substantially lower than on the majority of conventional roads and whilst the nature of the diversion route for Footpath 5 will clearly be different to the existing route of the path, the provision of the kerbed footway will provide a safe environment for footpath users.
- 7.1.9 Additional infrastructure is also being provided for Footpath 17, which is illustrated in Appendix 7 of CD A13. The existing footpath is along the carriageway of the C184 road and we are proposing to formalise the route with a new footway provided on the western side between the junction with the Haul Road and La Mount Corner. This will be of variable width and provides a safer environment for footpath users than walking along the road.

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7.1.10 The alterations proposed to the footpath network as outlined in the application provide safe diversion routes and also improve the continuity of routes throughout the network, maintaining accessibility and reducing severance.

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## 8 Conclusions

- 8.1.1 I have set out the transport strategy for the site and identified how the various elements relating to road access have been agreed with the appropriate authorities, including the routing agreements for vehicles to the CERC, ensuring that waste vehicles use appropriate routes.
- 8.1.2 Moving on to policy compliance I have considered how the proposals respond to Policy L6 and specifically the need to provide rail access. The guidance and indeed direction from Cornwall County Council to SITA in relation to rail access has been set out.
- 8.1.3 The conclusion that can be reached is that rail access for waste is definitely feasible and that when an appropriate investment regime is identified by the County Council then the flexibility that the location of the site and the current layout provides, would allow for future implementation.
- 8.1.4 In considering alternative strategies, I have carried out calculations of loaded vehicle mileage for the movement of waste across the period from 2010 up to 2035 for the various options. This has included looking at varying size facilities as well as the single size options included in the WRATE analysis.
- 8.1.5 The conclusion of this work is that the CERC represents the most sustainable option in transport terms, which concurs with the view of the WPA in the planning committee report (CD B1), in which they said on page 41.

*I believe that the proposed single and central facility continues to be the most sustainable option for Cornwall*

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- 8.1.6 Finally I have addressed the infrastructure improvements that are necessary for the footpath routes that are affected by the access road. This demonstrates that for Footpath 2, we are providing an alternative route, but that the current footpath can remain.
- 8.1.7 For footpath 5, we are providing a diverted route along the access road footway, which whilst different in character will provide a safe diversion route.
- 8.1.8 The improvements will improve the continuity of routes throughout the network, maintaining accessibility and reducing severance.