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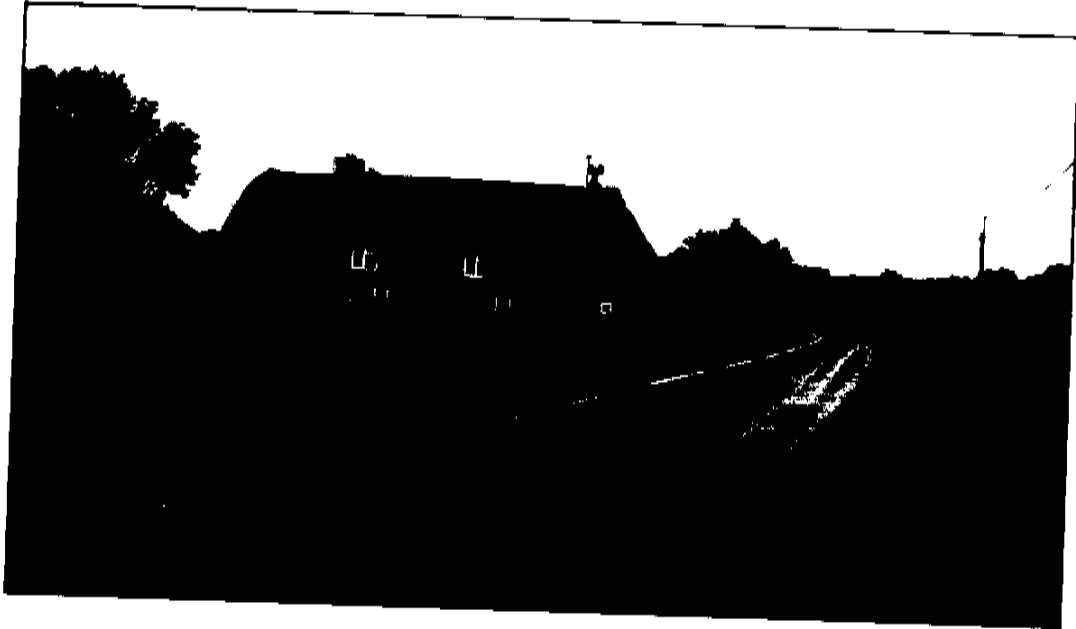


THE DEPARTMENT OF TRANSPORT
SOUTH WEST CONSTRUCTION PROGRAMME DIVISION

A30/A303 Marsh to Honiton Improvement and A35 Honiton Eastern Bypass

Environmental Statement

Volume 1



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JULY 1993

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**A30/A303 MARSH TO HONITON IMPROVEMENT
AND A35 HONITON EASTERN BYPASS**

**ENVIRONMENTAL STATEMENT
JULY 1993**

VOLUME 1

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1. INTRODUCTION

The Secretary of State for Transport is republishing proposals for the improvement of the A30 between Honiton and Devonshire Inn and the A303 between Devonshire Inn and Marsh (hereafter referred to as the A30/A303 Marsh to Honiton Improvement) and the construction of the Honiton Eastern Bypass connecting the A35 at Mount Pleasant with a new intersection located on the A30 just east of Honiton. He has determined that this scheme should be the subject of an environmental assessment. Accordingly this Environmental Statement is published summarising the assessment of the environmental effects of the scheme in accordance with Section 105A of the Highways Act 1980, as amended by The Highways (Assessment of Environmental Effects) Regulations 1988. These Regulations implement the provisions of the European Council Directive on environmental assessment (85/337/EEC) in respect of trunk roads.

The M3 Motorway and the A30/A303 Trunk Roads constitute an important strategic inter-regional route into the South West region, much of which has already been improved. The A35 Trunk Road links the South Coast ports with the South West peninsular and various bypasses have already been provided along its route. The published scheme would improve the A30/A303 between Marsh and Honiton (sections of which are below trunk road standards), improve sub-standard lengths of the A35 and bypass the north-eastern area of Honiton through which the A35 presently passes.

The A30/A303 Marsh to Honiton Improvement and the A35 Honiton Eastern Bypass (together referred to as 'the Scheme') are shown in their regional context on Figure No 1. This shows the road network including the M5 motorway to Exeter, the A30, A303 and A35 trunk roads and other main roads and their relationship to the towns and villages in the area.

The immediate area of the Scheme ('the study area') is described in the following section, while the Scheme itself is described in detail in Section 3 and illustrated by the accompanying larger scale drawings. Sections 5 to 10 describe the effects of the Scheme on the landscape, ecology, heritage interests, noise and air quality, agricultural and other property, and water resources and supplies. Each of these sections addresses the effects of the Scheme on the existing situation and describes the mitigation measures proposed as part of the Scheme design. Section 11 deals with the construction phase, including the effects on sites of ecological and archaeological interest, traffic routes, the movement of materials, noise, etc. Section 12 reviews the consultations carried out during the development of the Scheme, together with a list of the organisations consulted. Section 13 contains the Appraisal Framework in which the effects of the Scheme are drawn together in a tabular format and compared to the 'Do Minimum' situation, ie: assuming the Scheme is not constructed. Finally, Section 14 provides a summary and conclusions.

A Non-Technical Summary is included at Appendix 1.

The descriptions in the text are supported by drawings showing the Scheme, the environmental and planning context, the landscaping proposals, the other routes considered and existing and forecast traffic.

Much of the material contained in this Statement was drawn from a number of detailed studies by specialists, whose reports form the contents of Volume 2 of this Statement. These are published separately as Parts A, B and C, respectively dealing with the Landscape, Ecology and Archaeology.

Subject to satisfactory progress through the statutory procedures and the availability of funds, it is planned that construction of the A30/A303 improvement and the bypass for the A35 will begin in the mid 1990's taking about two years to complete.

The Secretary of State for Transport originally published proposals for this Scheme in July 1992. These proposals have been modified following representations from the public and this revised edition of the Environmental Statement has been published as a consequence. The original draft Orders have

been withdrawn and new draft Orders, which incorporate the amendments to the Scheme, are now being published. Most of these are of a relatively minor nature, with two exceptions:

- o the junction at Stopgate Cross has been extensively revised to incorporate an eastbound entry slip road, avoiding the need for traffic to pass through Marsh
- o a link road has been added between the unclassified road UC54 at Marsh and the road to Whitestaunton and Howley near the existing two-level junction on the A303 at Marsh.

The order of the text in this Environmental Statement differs from the original version, published in 1992, to reflect changes in current practice. The contents themselves have been added to, but not otherwise significantly changed. The opportunity has been taken to clarify some of the effects of the Scheme, such as those due to construction. The Non-Technical Summary has been amended to take account of the revised proposals and a copy is included at Appendix 1.

Copies of the Environmental Statement will be on deposit until 31 October 1993 at the locations listed in Appendix 2 and will be available for inspection by members of the public free of charge. If you wish to comment on any aspect of the Statement please write to: Department of Transport, South West Construction Programme Division, Room 503, Tollgate House, Houlton Street, Bristol BS2 9DJ. Your comments should be received by 30 September 1993.

2. DESCRIPTION OF THE AREA

2.1 Development

The area through which the existing A30/A303 trunk road passes between Honiton and Marsh is essentially rural. There are no towns, and the only settlements to be found on the route are at Monkton and Newcott. Honiton is the nearest town, situated just west of the scheme. Upottery and Yarcombe are nearby villages and Marsh is a village situated at the eastern end of the scheme, on the Devon-Somerset border.

There are no settlements on the route of the proposed A35 Honiton Eastern Bypass between its junction with the A30 at the northern end and Mount Pleasant at the southern end.

The settlements along the route of the A30/A303 are described briefly as follows:

Honiton

Honiton is the largest town in the area, having a population of some 7400. It lies on the south side of the Otter Valley and is an important shopping centre, market town and communication centre. Much employment is dependent on tourism but there is some light industry, including the manufacture of pottery. The Waterloo-Exeter railway line serves the town, which acts as a railhead to much of East Devon. A major agricultural show is held annually at the eastern end of the town. A bypass was built in the 1970s to carry the A30 trunk road which formerly ran through the town centre.

Monkton

Monkton is a small settlement with a population of some 200 people. It has no shops, but possesses a fine listed church, a village hotel and inn and a listed house (originally two dwellings). The village pump is also listed; all the listed buildings are Grade II.

The road width through the village is narrow and in places there is no footway. During the summer months the residents also suffer from the hazardous and unpleasant effects of a heavy flow of holiday traffic such that the case for a bypass of Monkton has long been recognised.

Newcott

The settlement of Newcott lies on the A303 and consists of several dwellings, a cafe, (the 'Newcott Chef'), and a petrol filling station. Most dwellings enjoy a commanding view over a small north facing combe towards the Otter valley.

Marsh

Marsh is situated on the lower slopes of the River Yarty valley and consists of a small group of houses and other buildings which once straddled the A303 trunk road. These have now been by-passed by the dual carriageway road improvement known as the Marsh Diversion.

Close to the route corridor are the two settlements of Upottery and Yarcombe. Situated in the River Otter valley, Upottery lies about 9 km north-east of Honiton and 1½ km from the A30. It has a population of about 600 people and was described as a 'Key Settlement' in the 1972 County Development Plan, (Second Review). It has a primary school, a post office, two shops, a public house and a 15th century church. Access to the village is primarily via minor roads from the A30.

Yarcombe lies 1½km south of the A303 trunk road. The village is situated on the lower slopes of the River Yarty valley and has a population of about 400 people. It has an attractive 15th century inn, a church, a village hall, post office and a shop.

2.2 Existing Road Network

The trunk roads in the area consist of the A303 between Marsh and Devonshire Inn, and the A30, from Devonshire Inn to the start of the existing Honiton Bypass. The A35 trunk road joins the A30 at Honiton and provides a link to Axminster, Dorchester and the South Coast.

The A30/A303 passes through the area in a north-east/south-west direction. The B3170 joins the A303 at Stopgate and provides a link to Taunton and the M5 at Junction 25. The A30 principal county road from Crewkerne and Chard joins the trunk roads at Devonshire Inn.

The geometry of the single two lane carriageway is generally poor by trunk road standards. There is a steep gradient at Reddicks Hill and traffic is severely constrained at Knightshayne by a 40m radius bend. Overtaking opportunities are very limited and there is poor visibility at the steep side road connections. Consequently, the accident record is poor along some sections of the road. The road has accesses fronting directly onto it and is subject only to the national speed limit of 60mph.

The alignment of the A35 single carriageway road is also very poor by trunk road standards, with severe bends at Springfield Corner and Tower Bend, and steep gradients. Inadequate visibility and sub-standard verge widths are commonplace; on Honiton Hill there are no verges and there are no overtaking opportunities.

2.3 Land Use

The whole of the area is devoted to agriculture and forestry. The agricultural land is mostly classified as MAFF Grade 3 with some Grade 2 and Grade 4. Farm units are generally small with a preponderance of dairy farming in the valleys and livestock rearing on the higher land.

There is some forestry, Worthill Plantation being the largest commercial operation near the route. Large areas of woodland have recently been felled on Reddick's Hill.

There is no inalienable or common land in the area under consideration.

A site for residential mobile homes and holiday chalets with an area for caravans and camping lies adjacent to the proposed intersection between the Honiton Eastern Bypass and the A30 trunk road. Known as Otter Valley Park, its access is from Tunnel Lane.

Two high voltage overhead lines run east-west across Honiton Hill, connecting Axminster and Chickerelle.

The Exeter-Waterloo Railway Line runs south-eastwards from Honiton, crossing below Honiton Hill in a tunnel just less than 1km in length.

2.4 Topography and Geology

The basic form of the landscape results from the erosive effects of two rivers, the River Otter in the west and the River Yarty in the east. These rivers rise in the Blackdown Hills to the north and run southwards to the coast. They have cut down through the capping of erosion resistant cretaceous rocks into the softer underlying rock to produce steep sided valleys separated by a narrow, relatively flat, plateau. Much of the steep hillside is unstable with spring features in many areas.

The result is two distinct landscape types; the sheltered and introverted river valleys lying at approximately 100m AOD, and the bleak and exposed plateau at 260m AOD.

The underlying geology consists of mudstones and marls of the Mercia Mudstone group from the Triassic period. Above this lies Upper Greensand (Cretaceous period) up to 55m in thickness, which in turn is overlain by a thin layer of clay-with-flints from the Eocene (recent) period about four to seven metres in thickness.

The escarpment slopes are formed by the outcropping Upper Greensand. This is a highly porous and permeable material which acts as an aquifer, resulting in the presence of a spring line at its boundary with the underlying, and much less permeable, Mercia mudstone. Many of the farms and dwellings along the edge of the escarpment use the springs as their primary source of water.

This description of the geology is very simplified and other factors, such as the effects of the Ice Age during the Pleistocene period and the presence of a major fault in the vicinity of Marsh have resulted in the formation of a complex geological structure.

2.5 Planning Factors and Recreation

The Devon County Structure Plan (Third Alteration), published in 1991, sets out the County Council's strategy, policies and proposals for development until 2001.

Honiton has been designated in the Structure Plan as an 'Area Centre'. As such it has been identified as one of six towns in East Devon where investment should be concentrated to support them as thriving centres in the more remote parts of the County.

Both East Devon District Council's Local Plan for Honiton and Devon County Council's Structure Plan anticipate the A30/A303 improvement and the construction of the A35 Honiton Eastern Bypass. The Local Authorities support these improvements in principle, acknowledging the benefits they would bring to the area by improving transportation links between Devon, the South and South-East of England, and also with regard to tourism in Devon.

Retention of the existing tourist facility at Otter Valley Park, on the outskirts of east Honiton, is also regarded as being important with respect to the Local Authorities' policies and strategies to encourage tourism at inland centres within the County.

The proposed roads lie largely within the Blackdown Hills Area of Outstanding Natural Beauty (AONB). The primary aim of this designation is to conserve the natural beauty of the area, and is given due weight in the County Structure Plan. Nonetheless, the proposed roads are essential to the County's primary road network and, as mentioned above, are included in the Structure Plan.

The East Devon AONB lies immediately to the south of the Blackdown Hills AONB and the two areas share a common boundary across Honiton Hill and along the A35 as far as Kilmington.

Recreation and tourism are essential elements of the economy of the South-West, although tourism in Devon has declined slightly since its peak in 1975. These activities arise largely from the high quality of the countryside and its attractive farms and villages. Conservation of these aspects is therefore of essential importance and is given due weight in the local authorities' plans. Mobility and accessibility are necessary for the enjoyment of these features, not only by motorists but also by cyclists and walkers. The needs of these groups are also considered in the Devon County Structure Plan, which provides a framework for the provision of casual outdoor recreational opportunities at an appropriate scale and in appropriate locations through:

- o the maintenance and development of the public right-of-way network
- o providing for the convenience and safety of pedestrians
- o encouraging the provision of improved facilities for cyclists.

There is an active walking club based in Honiton, but other activities which might be affected by the proposals are evidently of a less formal nature and little information is available regarding their extent and nature.

3. THE SCHEME

3.1 Objectives

The objectives of the proposed Scheme are to provide:

- (i) The improvement of the A30/A303 from Marsh to Honiton to dual 7.3m wide carriageway all-purpose (ie: non-motorway) standard.
- (ii) The construction of the Honiton Eastern Bypass to single carriageway standard with an overtaking lane between the new junction with the A30 and the top of Honiton Hill.

3.2 Alternative Routes

Prior to the Public Consultation held in November 1986, several route corridors were studied for the Scheme. Some of these are shown on Figures 2a-d.

At the western end between the top of Reddicks Hill and Honiton, the following were the main options considered :-

- o a route which rose onto the plateau directly east of the present Honiton Bypass. It passed to the south-east of Homeleigh Farm and continued along the plateau passing west of Westwood Farm until it joined the existing trunk road corridor at the top of Reddicks Hill. This scheme was rejected mainly for its severe impact on the landscape as it climbed to the east of Honiton and its longer length, leading to poorer economic performance.
- o a route which climbed gradually up the face of the hillside to the south-east of Ottermere passing to the north of Hedgend Barton Farm, then east of Monkton Barton Farm, and west of Westwood Farm, before again joining the existing trunk road at the top of Reddicks Hill.

This scheme was rejected primarily because of the adverse visual impact it made on the landscape as it traversed the face of the hill between Ottermere and Westwood Farm. It would also have crossed long lengths of unstable hillside.

- o a route which basically followed the corridor of the existing trunk road. At its western end it passed between Monkton and the River Otter, then crossed the existing road to pass to the east of Aplin's Farm and finally climbed Reddicks Hill on an alignment to the east of the present trunk road which, like the previous two options, it rejoined at the top of the hill. This option became the route exhibited as the Blue route at the Public Consultation, being considered preferable to the other options in engineering, environmental and economic terms.

On the central section between the top of Reddicks Hill and to the east of Newcott all options followed the corridor of the present trunk road. The variations to the road network were mainly on the treatment of the junctions with the A30 and the various side roads. This route option was also part of the one exhibited as the Blue Route at the Public Consultation.

At the eastern end of the project between Newcott and Marsh, apart from a preliminary study of routes around Birch Hill and the Beacon Plantation, the main options investigated were:

- o a route which cut across the valley of Knightshayne Bottom on a high embankment, passing south of Sandy's Cottage and along the northern edge of the Worthill Plantation before joining the central option just north of Newcott. Whilst the route had favourable economics it was unacceptable in landscape terms as a high embankment ran completely across the Knightshayne valley.

This was shown as a rejected route at the Public Consultation.

- o a route that kept close to the existing road corridor between Marsh and Knightshayne Farm, crossed the valley on a low embankment just south of the farm and then, after passing to the north-west of Stopgate Cross, joined the central option to the east of Newcott. Although being less effective in economic terms, this route was more acceptable in its landscape implications. This option was presented as the Red Route at the Public Consultation.

Prior to the Public Consultation preliminary studies were carried out on several routes for the A35 which climbed the hill to the east of Honiton and also incorporated a realignment of the A30. All these options were deemed to have an unacceptable impact on the landscape, and were not pursued subsequently .

The options which were considered in more detail were:

- o The original scheme prepared by Devon County Council, and for which draft Orders had previously been published by the Secretary of State, commenced at Langford Road Bridge on the Honiton Bypass, incorporated a roundabout at Monkton Road and then passed under the Waterloo/Exeter railway line. Thereafter it ascended in cutting to Springfield Corner where a sharp left hand bend was necessary. The route then ascended Honiton Hill on the existing road line but with extensive earthworks in cutting, and with a sharp right hand bend at the top of the hill.

This route afforded less relief from traffic noise to residents in eastern Honiton. The earthworks necessary on Honiton Hill would have been unsightly in landscape terms. The economics were poor and an alignment to current trunk road standards could not have been achieved.

This was shown as a rejected option at the public consultation.

- o a route which commenced at a junction with the A30 near Cheney's Farm, just east of the existing Honiton Bypass. It ascended the hillside at a uniform gradient, crossing the existing rail tunnel and then passing to the east of Northcote Hill Farm in cutting to a junction at Hutgate Road. Beyond the junction the route connected to the existing A35 at Mount Pleasant.

The route passed through countryside already affected by an overhead power line and a railway. The road alignment fitted into the landform, passing through a dip in the hillside on Honiton Hill. Through traffic on the A35 would be routed clear of Honiton on a smoother and safer alignment. The tortuous connection to the A30 via a mini-roundabout at the eastern end of the town would be avoided, and the existing road would serve local traffic.

This option was exhibited as the Green Route at the Public Consultation.

3.3 The Published Scheme

Choice of Published Scheme

The Public Consultation routes for the A30/A303 Marsh to Honiton Improvement and the A35 Honiton Eastern Bypass are indicated on Figures 2a-d. The Published Scheme has been based on the protected routes adopted following Public Consultation which were selected for the reasons given below.

A30/A303 Marsh to Honiton Improvement

The Consultation Route described as the Blue and Red Route for the A30/A303 Marsh to Honiton improvement was exhibited at the Public Consultation held in 1986.

There was overwhelming public endorsement of the Consultation Route proposal. However, local residents and farmers living between Newcott and Marsh proposed that the Consultation Route be modified in order to reduce the likely adverse effects on property and agriculture at Stopgate Cross and at Knightshayne Farm. As a result, the Consultation Route was subsequently modified to a new route referred to as the Blue and Modified Red Route. This proposed amendment was also favoured by both East Devon District Council and by Yarcombe Parish Council.

In January 1988 the Minister announced that the Blue and Modified Red Route was the Preferred Route for this part of the scheme.

A35 Honiton Eastern Bypass

The Consultation Route which was described as the Green Route was exhibited for the A35 Honiton Eastern Bypass at the Public Consultation held in 1986.

Comment was sought on the acceptability of the Green Route and as a result, objections were received from the public regarding (i) the proximity of the Green Route to Otter Valley Park; (ii) the arrangement at Offwell Junction; and (iii) the closure of Northcote Hill. In order to address these objections the Green Route was subsequently amended to the Modified Green Route.

In January 1988 the Minister announced that the Modified Green Route was the Preferred Route for this part of the scheme.

Changes to the Scheme since Publication of Draft Orders in July 1992

A number of changes have been made to the Scheme arising from representations made by members of the public during the statutory objection period following publication of the draft Line and Side Road Orders. These are described briefly below.

- o Offwell Junction now includes a length of single lane dualling of the A35 with some minor revisions to the adjoining side roads;
- o The realignment of the existing trunk road near Northwood House Farm has been extended slightly;
- o The Valley View Link Road near Aplin's Farm has been realigned slightly;
- o The route of the realigned A30 at Reddicks Hill has been moved slightly northwards to reduce the effect on Hayne Pit, Claypits Covert and the wet wood between them, referred to in this Statement as Wet Wood;
- o The Stopgate Cross junction has been substantially revised, and the Newcott Link Road realigned;
- o A link road has been added between the UC54 at Marsh and the road to Whitestaunton and Howley near the existing Marsh two-level junction.

The first four amendments are relatively minor but the latter two, which are also described in the Introduction to this Statement, represent significant changes to the Scheme.

3.4 Scheme Description

The published route of the A30/A303 Improvement is 13km long and commences at the eastern end of the Honiton Bypass east of the Langford Road two-level junction, after which it generally follows a line parallel to the existing A30/A303 trunk road as far as the existing dual carriageway at Marsh on the Devon/Somerset border.

Figure 3a

The new route initially follows a straight alignment as far as Cheney's Farm where a two-level junction with the A35 Honiton Eastern Bypass is proposed. From a roundabout on the bypass, immediately south of the A30, slip roads are carried over the A30 on a bridge to connect to its eastbound carriageway. Other slip roads connect directly between the roundabout and the westbound carriageway. The existing A30, retained for use by local traffic, is also linked to the roundabout and a new local road runs westward from the roundabout to Monkton Road, providing a link for local and trunk road traffic into Honiton.

The route continues along the River Otter Valley on an embankment up to 4 metres high between the river and Monkton, to a bridge crossing the existing road north of the village and passing east of Aplin's Farm. The lowest level of the new A30 trunk road is constrained by the flood level of the River Otter. The new road would pass behind, and at a somewhat lower level than, the listed buildings of 'Glen Eden' and St Mary Magdelene's Church. The new road would be visible from Public Footpath No. 3, which runs eastwards from the existing trunk road near Monkton.

Figure 3b

At Aplin's Farm underbridge, the severed sections of the existing A30 Trunk Road on either side of the Published Scheme are connected by means of a 'dumbbell' arrangement of two small roundabouts. The southern roundabout connects via a link road to Valley View Road and a new road is provided from the northern roundabout running westwards parallel to the new trunk road to link to Ford Cross. The roundabouts will be lit.

From a point adjacent to Yard Cross the route begins to rise out of the Otter Valley ascending Reddicks Hill in cutting on the face of the hill, before flattening out onto the upland plateau. The maximum depth of cutting is 9 metres, measured on the road centreline.

The route up Reddicks Hill will pass through a sensitive area and there will be some disruption of the hedgerows and field pattern. A small covert will be lost near Aplin's Farm underbridge. Near Yard Cross a small area of Hayne Meadows, of some ecological importance because of their botanical diversity, will be lost. Also near Yard Cross, Hayne Pit and Wet Wood, both of which are of significant ecological value, will be affected. However, the extent of incursion into these two sites has been much reduced by the recent realignment. A large part of the adjoining Claypits Covert will be lost.

Figure 3c

From Cotleigh Crossing to Devonshire Inn Farm the alignment of the new road follows the line of the existing A30 Trunk Road near existing ground level.

At Devonshire Inn Farm the route joins the existing A303 at its commencement, by means of a large single level roundabout which will be lit. Devonshire Inn Cottage, opposite Devonshire Inn Farm, will require demolition. The existing A303 road will become a local road and will be diverted to join the A30 at a 'T' junction to the east of the roundabout. At this location, the new trunk road will be on embankment which, due to sloping ground, will be up to 9m in height on the western side (although on 4 metres on the centreline). The proposed Stockland Hill link road and the unclassified road UC27 will also be connected to the roundabout. A bridge will be provided to accommodate a further link road under the new route, joining Sandy's Lane with Stockland Hill link road. The route at this location is constrained by the proximity of Devonshire Inn Farm and the location of Hanson's Farm immediately below the edge of the escarpment.

From Devonshire Inn Farm to Newcott the new route alignment generally runs parallel to the line of the existing A303, passing to the west of Crinhayes Farm and bypassing Newcott. This section of the route to a point past Crinhayes Farm will be near existing ground level.

Figure 3d

The route crosses the small combe at Newcott on sections of relatively shallow cut and fill before entering a length of cutting up to 12 metres in depth where the new alignment crosses the line of the existing A303. To the north-west of Newcott, the extensive semi-natural habitat of the Sandpit Hill area is of considerable ecological value. However, the relatively close proximity of the new road to the existing A303 will ensure that adverse ecological impact at Sandpit Hill is minimal.

From the north-east of Newcott a new road will run parallel to the new trunk road, linking to the B3170 at Stopgate Cross. Public Footpath No 27 at Newcott will not be affected by the new road.

East of Newcott the route ascends in cutting to a two-level junction at Stopgate Cross, connecting to the B3170 from Taunton, which is carried on a bridge over the route. Entry and exit slip roads are provided from the eastbound carriageway looping round to the B3170 at a small roundabout which will be lit. The existing trunk road also connects into the roundabout, providing a route for local traffic to Marsh. Entry and exit slip roads from the westbound carriageway connect to the new road between Newcott and the B3170. From the junction, the route then descends towards the Yarty Valley in cutting up to 12 metre deep measured on the road centreline.

The route continues downhill on a right hand curve towards Marsh, passing through steeply contoured terrain on embankment up to 12 metres high and crossing a tributary stream in Knightshayne Bottom valley before linking into the existing dual carriageway at the western end of the Marsh Bypass.

The route passes through Knightshayne Bottom and Manning Common, an area of woodland and meadow of ecological value because of its botanical and habitat diversity. South of the proposed improvement near Marsh are two listed buildings, 'Birch Mills' and 'The Old Thatch', situated on the unclassified road UC54. The new road is about 130m from these buildings (30m less than the present trunk road) and at about the same level as the existing road. Public

Footpath No 42 near Marsh will be maintained across the new road, using a stile as at present. Because the UC54 is severed by the new trunk road, a single track link road with passing bays will be provided, connecting to the road to Whitestaunton near to the existing Marsh two-level junction.

Figure 3a : A35 Honiton Eastern Bypass

The published route is 2½km long and consists of a bypass commencing at the proposed A30 Improvement in the Otter Valley at a two-level junction adjacent to Cheney's Farm, bypassing the existing Axminster Road up Honiton Hill. The route climbs Honiton Hill at a gradient of 7.75% curving to the right on an embankment up to 8 metres high. The embankment will be visible from Public Footpath No 14 which will otherwise be largely unaffected. It passes over the Honiton railway tunnel before entering a left hand curve in cutting up to 8 metres deep, passing to the east of Tower Cross and linking with the existing A35 on the plateau at Mount Pleasant, east of the proposed junction at Offwell Road. A bridge will be provided to carry Hutgate Road over the Bypass.

Northcote Hill Meadow is of ecological interest due to the relatively high botanical diversity of the more steeply sloping part of the site. This meadow will be almost entirely lost as a result of the extensive cutting required in this area. 'Bishops Tower', a listed building close to the existing trunk road would be about 250m from the new road. Two other listed buildings, 'Marwood House' and 'Copper Castle', close to the existing trunk road will be well away from the proposed bypass.

3.5 Structures

Bridges are required at various locations, as indicated on the drawings, associated with junctions and to provide connections across the new roads to maintain the existing road network. They will be principally in concrete and the designs, which will be similar throughout the scheme, will be as simple and unobtrusive as possible. The bridges will be of one to three spans, depending

on the length and the nature of the road being bridged. Solid abutments will be avoided to give the bridges as open an appearance as possible. Bridges over the A30/A303 are typically about 70m in length and 10m to 13m in width. The trunk road in this area is designated a 'high load' route. This means that abnormally high vehicles can be diverted along it and this requires a minimum vertical clearance of 6.25m. Bridges under the trunk road are about 40m in length and 25m in width with a minimum clearance of 5.3m. There is only one bridge on the Honiton Eastern Bypass, an overbridge carrying Hutgate Road. It is about 60m in length, 11m in width, and has a clearance of about 7m.

3.6 Lighting

As noted earlier, lighting will be provided at the roundabout junctions and link roads at the following locations:

- I) Cheneys Farm Interchange - The roundabout on the A35 close to its junction with the Marsh-Honiton Improvement.
- ii) Aplin's Farm - Both roundabouts of the 'dumbell' junction arrangement..
- iii) Devonshire Inn Farm Junction - The roundabout and approaches.
- iv) Stopgate Cross Interchange - The small roundabout on the B3170.

Where new lighting is necessary, its effect on the environment will be considered in the design. This will include taking advantage of the latest technology, especially in lantern design, to limit the amount of light which falls outside the highway and which might be seen from distant viewpoints.

3.7 Other Design Features

Lay-bys will be provided on the A30/A303 Marsh Honiton Improvement at suitable sites on both carriageways, in accordance with the Department of Transport's current standards, at the following locations:

- i) West of Monkton village
- ii) At the bottom of Reddicks Hill
- iii) West of Devonshire Inn
- iv) Newcott

No lay-bys will be provided on the A35 Honiton Eastern Bypass due to its short length, and the difficulties of providing suitable sites.

The lay-bys will be about 45m in length and separated from the main carriageway by a narrow island. Acceleration and deceleration lanes are provided to assist traffic using the lay-bys to leave and join the through carriageway in safety. Lay-bys are generally provided at about every 2.5km on dual carriageways and from 2km to 5km on single carriageways.

An arrester bed will be constructed on the A35 Honiton Eastern Bypass at the bottom of the hill to enable vehicles in difficulties to be brought to a halt safely. The arrester bed consists of an escape lane leading to a bed of loose lightweight material, 3.5m in width and 150m in length

3.8 Effect on Traffic

It is expected that the Published Scheme would significantly reduce traffic flows along the existing A30 and A303 between Marsh and Honiton and on the A35, Axminster Road. It is predicted that between approximately 95% and 99% of traffic using the existing A30/A303 trunk road would transfer to the new road and 70% to 80% of the traffic using the existing A35 would transfer to use the new bypass.

Figure 4 shows the levels of traffic in 1990 and those predicted for 2012 with and without the Scheme for both high and low traffic growth, in terms of the Annual Average Daily Traffic levels (AADT). Existing traffic patterns were identified using data from extensive traffic surveys. The analysis and forecasting of traffic patterns in the Study Area were carried out following standard Department of Transport procedures which are set out in the Traffic Appraisal Manual. Traffic growth factors have been derived using a combination of local and national forecasts.

Traffic flow on the existing A30/A303 in 1990 was approximately 7,000 vehicles AADT near Marsh, rising to 13,800 vehicles on the existing A30 Honiton Bypass. After construction of the new route, very little traffic would use the existing trunk road. The forecasts for 2012 indicate that if the Improvement were not constructed, traffic volumes on the existing trunk road would rise to approximately 21,000 vehicles AADT near Marsh and 32,000 vehicles AADT on the existing A30 Honiton Bypass, under high growth conditions. With the Improvement, traffic volumes on the existing trunk road in 2012 (high growth) are not predicted to exceed 1,000 vehicles AADT at any point and at most locations traffic volumes are forecast to be below 500 vehicles AADT. Forecast traffic volumes on the new trunk road (2012, high growth) range from approximately 21,000 vehicles AADT at Marsh to 33,000 AADT near Honiton.

The high levels of future traffic on the A30/A303 result from a combination of national traffic growth and a transfer of traffic to the A30/A303 route as a result of its extensive improvement through Wiltshire, Somerset and Devon.

In 1990, the existing A35 between Mount Pleasant and High Street, Honiton, carried 9,000-10,000 vehicles AADT; it is predicted that this would rise to 16,000-18,000 vehicles AADT in 2012 (high growth) if the Bypass were not constructed. With the Bypass, it is possible that the existing A35 would carry only 3,000-5,000 vehicles AADT in 2012 (high growth), with approximately 15,000 vehicles AADT using the new Bypass.

4. EFFECTS OF DESIGN POLICY

4.1 Approach to Design

Route selection involves the identification of a 'corridor' within which an alignment or several alternative alignments, will be developed. Road geometry is influenced by design criteria such as curvature and gradient which are basically dependent on traffic characteristics, particularly design speed. Within these constraints an alignment will be designed to meet various additional objectives. Generally a road will be kept as near to existing ground level as possible to minimise earthworks on engineering, cost and visual grounds, although this will be conditioned by the need to provide junctions and bridges carrying sideroads over or under the route, and by environmental needs such as screening to reduce visual or noise effects. Demolition, severance and other effects on property will be minimised as far as possible. Attention will be paid to heritage and ecological issues and sensitive areas will be avoided wherever possible. Conflicts in meeting these objectives cannot be avoided everywhere and some compromises are inevitable where a balance between them has to be found. Safety, however, will always be a primary consideration. The location of junctions is usually dictated by existing roads and traffic needs. Methods of dealing with other local roads will involve similar principles to those adopted for the main route but the opportunities, for example, to meet a particular environmental objective, are likely to be much more limited.

4.2 Route Selection

The proposed route of the A30/A303 Improvement generally follows the existing road corridor. This assists in minimising severance of property, particularly farms. The new route bypasses the settlements of Monkton and Newcott, but the demolition of a single property near the proposed Devonshire Inn Junction cannot be avoided. It has not been possible to produce an alignment for the new road which avoids affecting some sites of ecological or archaeological interest because of their relative abundance along the route, coupled with the

constraints imposed by topographical and other factors. In general, the new alignment will result in an overall improvement regarding the effect of noise on property. The new road is expected to cause less visual intrusion and visual obstruction to nearby residents than the existing road and will further benefit from the screening effects of the landscaping proposals.

The A35 Honiton Eastern Bypass follows an entirely new route. This proposed single carriageway road would follow an alignment sympathetic with the existing landform and readily assimilated into the landscape. The volume of traffic using the existing road would decrease very substantially leading to a significant overall reduction in the number of properties affected by traffic noise and visual intrusion.

5. EFFECTS ON LANDSCAPE

5.1 Existing Landscape

The two new roads lie within an area of exceptional scenic quality forming part of the national landscape heritage, which has been recognised by its designation as the Blackdown Hills Area of Outstanding Natural Beauty (AONB). To its south lies the East Devon AONB, the two areas having a common boundary between Honiton and Kilmington. The Blackdown Hills are best known for the steep wooded scarp face they present to Taunton Deane. To the south the land drops away gently as a plateau deeply dissected by valleys and combs. Moving around the area the views are constantly changing from long distance panoramas to more intimate scenes of agricultural and village life. The area has a unique and special character arising from the combination of the creation of nature and work of man.

Although the Blackdown Hills AONB is characterised by a variety of landscape types, there are two main landscape types within the study area, namely the valleys and the higher rolling ridgeland or plateau. The main valleys, formed by the rivers Otter and Yarty, lie to the north and south of the new road, with the higher plateau lying between them.

The valleys are predominately pasture and the landscape is characterised by small rectangular fields defined by hedgerows punctuated by mature oak trees. Small isolated copses of indigenous tree cover, mostly willow and alder, follow the course of the rivers.

Most dwellings lie on the valley sides, some clustered in villages, in addition to isolated farmhouses, and more recently, bungalows and houses. The field boundaries tend to follow the contour of the slope or run at right angles to it. This produces a pattern of roughly rectangular fields parallel to the alignment of the valleys modified locally by surface features such as gulleys, streams and tracks.

The landscape of the Otter Valley floor and sides is essentially intimate with an intricate pattern of small fields, hedgerows and small copses. The proposed road will be relatively large scale in comparison and will require careful landscape treatment to integrate it successfully into its surroundings, particularly where it cuts through the existing fields and hedgerows and because it will be overlooked from the higher land surrounding it.

A sharp transition from the valley to the plateau landscape occurs near the top of the valley sides. There are very steep slopes at the edge of the greensand plateau which form a distinctive ridge marked by linear woodlands and hedgebanks. Elsewhere the cretaceous rocks that form the plateau frequently give rise to good, well drained soils producing higher grade agricultural land.

The plateau is characterised by the absence of habitation, larger fields bounded by hedgebanks, sometimes of beech with occasional hedgerow trees, and relatively flat exposed land. It is much more open and exposed than the valleys and is not overlooked; visual intrusion will be slight especially as there are few dwellings or public footpaths. The larger scale of the landscape, the presence of hedgerows parallel to the route and the absence of nearby high ground would all help to ease the task of integrating the proposed road into the landscape.

5.2 Methods of Reducing Adverse Effects

The landscape proposals have been designed to integrate the new road into the surrounding countryside, to reinstate as much as possible of lost wildlife habitats and to enhance those existing habitats affected by the proposed road. Proposed landscape areas are indicated on Figures 5a-d and include:

- o Woodland, hedgerow and tree planting of indigenous species to mitigate the visual intrusion of the road and structures.
- o Provision of earth mounding for visual protection. Mounding will also help to reduce noise transmission.

- o Shaping of cuttings and embankments with additional earth moulding to reduce the impact of the earthworks.

Where possible, high embankments have been avoided on the proposed A30/A303 Improvement to reduce visual intrusion, although some are unavoidable because of the nature of the topography, eg: at Knightshayne Bottom and Reddicks Hill. Elsewhere, the road has been kept as close as practicable to ground level, but there is a 1½ km section of cutting between Newcott and Knightshayne Farm, with a maximum depth of 12m.

Temporary ponds, or 'stilling basins', will be used during construction for the control of pollution, particularly of fine material washed from the construction works by rainwater. It is intended to incorporate some of these areas within the landscaping proposals where they will compensate for any lost wetland areas and provide additional habitat and species diversity.

5.3 Landscaping Proposals

Figure 5a

At Cheney's Farm Interchange a limited degree of environmental protection to Otter Valley Park will be afforded by the creation of a low earth mound about one metre in height. The effects of the junction would be lessened by extending the earthworks shaping to appear as an extension of the valley side. Woodland planting would reflect the form of copses linking with existing hedgerows and masking the bridge abutments.

A planting screen will be introduced as the new road leaves the Otter Valley in order to reduce the strong linear form of the route against the more natural form of the valley floor. There will be opportunities for woodland planting on several small parcels of land such as areas adjacent to Pugh's Farm which would enhance and complement existing woodlands in the area.

Figure 5b

The road will pass close to Aplin's Farm and the nearby properties of 'Otter View' and 'Valley View'. The proposed junction will be visible from Monkton Barton, and adjacent footpaths and overlooked from Hartridge and Dumpdon Hill to the North. The location of the two small roundabouts within cutting will reduce the impact of the road on the landscape. In addition land acquired for landscaping between the new and existing road will be planted to provide a visual screen. Four other additional areas will be acquired and planted to integrate with the existing field pattern and vegetation cover of this locality.

Hayne Meadows is an area of about 10ha, comprising a group of ten meadows of which four are particularly rich in plant variety, having up to 18 non-grass species. Two of these meadows are affected by the proposed route and approximately 3 ha will be lost. A fifth meadow is possibly the single most interesting site encountered in the ecological appraisal containing 30 species excluding grasses. It is not affected by the proposals. The topsoil from the affected area, which should contain a relatively rich and varied seed 'bank', will be set aside and re-used on the roadside cuttings and embankments (approximately half the affected area) to help re-establish the interesting flora of the meadows.

The woodland areas of Wet Wood and Hayne Pit are of conservation value because of their physical character and the biological communities they support. Although the proposed alignment of the new road has been refined, both areas are affected by the route and it may not be possible to replace the lost ground flora. The proposed woodland planting in this area will physically link with Claypits Covert and provide a visual benefit, ie the view of the road entering the woodland of Reddicks Hill would be screened from the opposite valley side. The replanted woodland on both the embankment and acquired land would integrate with the field pattern and irregular shaped copses which are typical of the valley side.

Almost all the woodland of Claypits Covert (1.5ha) would be lost to the road, although its ecological significance is comparatively limited. However, substantial planting of the cutting and on land to be acquired specifically for landscaping (approximately 1.3ha) will link previously unconnected areas of copse, consolidating an area of severed woodland and providing an extension to the linear flow of woodland down the valley. This would have particular benefits in that further habitats would be created for the wildlife in the locality.

Figure 5c

Immediately to the south of Reed's Covert and Rawridge Covert, land severed by the new road will be planted to complement and consolidate the existing woodland of Reddicks Hill.

To the south of Barn Covert, woodland planting on both the embankment and land acquired for landscaping will screen the road from the adjacent properties of "Avalon" and "Windwhistle Cottage".

The junction to the immediate north of Devonshire Inn Farm will be in the form of a roundabout which sits partly in cutting on a ridgeline, within one discrete field unit bounded by hedgerows and the A30 principal road from Chard. The roundabout, which will link with the existing road network, successfully retains the majority of hedgerows which form a strong visual feature in the open and exposed local landscape. Earthshaping is proposed to the north-east of the new junction; following the form of the existing ridgeline the landform will be built up to give further enclosure to the road and roundabout. The rectangular field form, characteristic of this upland landscape will be recreated through new hedge planting. Small areas of additional land (total approximately 3.4ha) will be planted to create copses which will break down the scale of the roundabout. This planting would also visually and physically link with Bob Sheet's Covert and assimilate the roundabout into the wider landscape. The roundabout lighting would be screened in part by Bob Sheet's Covert and ultimately by the new copse planting, and will be designed to be as unobtrusive as possible within the limits imposed by its functional requirements.

The arrangement of roads to the west of Devonshire Inn Farm has little impact on the landscape since the new road will be in cutting, adjacent to the proposed route and contained by hedgerows. Nonetheless, indigenous species will be planted on the cutting.

Figure 5d

At Newcott, the route will be on embankment and will be visible in the wider landscape from Knackers Hole Lane and the Cockhayes area situated on the opposite side of the valley. The route will encroach on the eastern edge of Sandpit Hill, an area of conservation value because of the diversity of habitat and botanical species. However, woodland planting reflecting the original species composition will be carried out on the road embankment and on land acquired for landscaping which would replace lost vegetation and link existing scrub and hedgerow, integrating the road into the landscape. The planting will also help to screen the road in the wider landscape, although the planting will be relatively open to preserve the views from Newcott.

At Sandpit Hill, the road will enter a long cutting up to 12m in depth, but the curving alignment and careful grading of the embankment will reduce the impact of this feature. Substantial planting will also be carried out on the cutting sides and on additional land which will link with the existing woodland on Sandpit Hill. The scale of the two-level junction at Stopgate Cross will disrupt the local field pattern, and three properties will be close to the new road layout. It is intended to acquire additional land for extensive planting to screen the junction, most of which will be in cutting. The cutting slopes and additional earthmounding will be shaped to blend with the existing landform and provide further amelioration.

Acquisition of land adjoining the realigned UC53 will allow planting to screen the trunk road and bridge abutments thereby reducing the visual impact in both the local and wider landscape.

The embankment at Knightshayne Bottom will result in the loss of a significant area of woodland (approximately one third). The ecological value of this area is considerably reduced because a large part of it is overrun by laurel. Nevertheless, the wood contains much of ecological interest and variety which is heavily dependant on the hydrological regime. As part of the proposals, it is intended to acquire this woodland in order to maintain this regime, and the loss of woodland will be at least partly mitigated by the removal of the laurel and by new planting on the embankments.

The road will be on embankment as it passes adjacent to Marsh Farm. It will therefore interrupt the natural form of the valley side, intruding upon views up the Knightshayne Valley and cause visual obstruction to "Birch Mills", "The Old Thatch" and "Fairway". Woodland planting on the roadside and land acquired for landscaping will reduce the visual impact of the road. The irregular shaped areas of new woodlands are designed to reflect the field pattern of this part of the landscape.

It is intended to carry out substantial earthshaping between the existing Marsh Bypass and the UC54 link road to reduce the impact of the existing steep embankment slopes and to provide visual separation between the two roads. This will be accompanied by extensive new planting to link with the existing valley woodland.

The existing A30/A303 trunk road will be retained throughout most of its length and will become a local road carrying only very light volumes of traffic. It will provide a safe and convenient route for local traffic, cyclists etc.

Figure 5a : A35 Honiton Eastern Bypass

The proposed route will be in scale with the landscape and will have minimal impact on the local topography. Visual intrusion will be limited to local views, and the embankments visible from a footpath near Northcote Hill Road. Northcote Hill Meadow, an area of conservation importance because of its high species diversity, will be considerably affected. However, planting on the

embankments and on additional land acquired for landscaping and the re-use of topsoil with its 'seed bank' will compensate in some measure for this loss.

The new road will approach Offwell Junction in cutting, limiting visual intrusion, and the curved alignment avoids a notch against the skyline. The route will cut diagonally across the existing pattern of hedgelines, but the impact of this will be reduced by tree planting. This planting will be discontinuous to avoid emphasising the linearity of the scheme but sufficient to screen views from nearby properties. The effects of the new junction at Offwell will be softened by appropriate planting.

More detailed descriptions, explanations and information are contained in Part A of Volume 2 of this Statement: the Landscape Report.

6. EFFECTS ON ECOLOGY

6.1 Existing Wildlife Habitats and Species

There are no sites of significant national or regional importance in the immediate vicinity of the published scheme, but there are several areas of significant local ecological value. Within the route corridor, the valley floor and plateau lands are, for the most part, intensively managed agricultural land. Improved pasture predominates on the valley floor with a mixture of improved pasture and arable land on the plateau. Thus, apart from the well-preserved pattern of hedgebanks and hedgerows, these areas contain little of ecological interest. However, the valley sides, particularly the upper slopes are generally less intensively managed and the extensive woodland cover provides a range of interesting habitats and is a valuable wildlife resource. The total area of woodland within the route corridor has increased significantly over the last 170 years and is still increasing.

The two river systems within the corridor, the Otter and Yarty, are of high water quality. However, minor water courses feeding these rivers are of variable quality.

6.2 Specific Ecological Interests

Within the route corridor there are three major areas of valuable and diverse wild life habitat (see Figures 6a-d). These are (i) the Knightshayne Bottom/Manning's Common area near Marsh, (ii) the area around Sandpit Hill and (iii) the discontinuous woodland strip running from Bob Sheets Covert to Hayne Pit.

In addition to those areas mentioned above, eleven sites of specific conservation value have been identified for various reasons. Hayne Meadow, Wet Wood, the wet meadow near Sandpit Hill and an area within Knightshayne Bottom

contain a wide diversity of plant species. Rough Lot Copse contains a rich and classic woodland flora and the wet wood east of Bob Sheet's Covert contains several plant species not seen elsewhere in the study area. Courtmoor Covert is the only site that could be genuine ancient woodland, although Hayne Pit contains a variety of ancient woodland indicators. Claypits Covert and Underdown Covert provide a valuable variety of habitats and cover for a number of animals. Two fields by Marsh Bypass are traditional unimproved hay meadows.

Although a considerable variety of plants occur within the route corridor, there do not appear to be any rare or protected species growing in the immediate vicinity of the proposed new roads.

At least 69 species of bird have been recorded in the area; badgers and roe deer are abundant, and evidence has been found of the presence of dormice. No evidence has been found to suggest that bats or any other rare, endangered or listed animal species would be threatened by the proposed road.

Ecological Effects of the Proposed Roads

The ecological effects of the Scheme are relatively minor and most of the areas of ecological value within the route corridor will not be significantly affected. However, there are some sites where more serious damage or loss will occur, although virtually all the plant and animal species in the immediate vicinity of the new road occur quite widely throughout the route corridor. The Scheme therefore does not threaten the continued existence of any species within the area.

Between the A35 Honiton Eastern Bypass and Hayne Pit there are no sites of particular ecological significance and the impact of the new A30 trunk road along this stretch will be small. However, a large volume of water will drain from this stretch and careful design will therefore be needed to avoid pollution of existing watercourses.

Hayne Pit, Wet Wood and Claypits Covert, three of the ten key areas mentioned above, are affected by the new road and this is potentially the most damaging feature of the Scheme. This section is commented on further in the proposals for mitigation which follow.

The effect on the extensive and ecologically valuable Sandpit Hill area is minimal.

At Knightshayne Bottom, the wood complex is bisected by the new road and a considerable area of the wood destroyed because of the extensive embankment required in this area. However, although the wood is of considerable ecological interest because of its wide variety of plant species, a large portion is overrun with laurel, and without active control, this threatens the long term future of the wood.

The Honiton Eastern Bypass will have two significant ecological impacts: the loss of the major part of Northcote Hill Meadow, a site containing areas of botanically rich grassland, and the loss of a subsidiary badger sett.

Badgers are extremely abundant in the area and eleven badger group territories fall wholly or partly within the route corridor. At the time of the route corridor badger survey undertaken in 1990, ten of these territories were occupied. The degree to which the proposed Scheme will affect individual territories and their resident badgers varies considerably.

A study of nine sites within and around the route corridor, selected on the basis of their habitat characteristics, has shown that dormice are widespread in the area. One of the survey sites, which contained clear evidence of dormouse presence, lies directly on the route of the A30/A303 Improvement. As the affected site appears to be the only area of suitable habitat directly traversed by the proposed Scheme, it is unlikely that dormice would be significantly affected by other parts of the Scheme.

The route corridor provides an abundance and variety of habitats for birds, including some rare or protected species. Of these, only the barn owl is likely to be affected by the new road because of its method of hunting which renders it liable to being killed by road traffic.

Roe deer are abundant in the area, to the extent that they have become a significant problem and many have been hit by traffic along the trunk road.

6.3 Proposals for Mitigating Adverse Ecological Effects

There will be, in total, a considerable area of land available for visual enhancement and habitat creation in the new verges, embankments, severed land, and additional land acquired for landscaping. From a visual or landscaping viewpoint individual areas may be used for planting trees, shrub type vegetation or grassland. All three types of planting are desirable from an ecological point of view. Detailed proposals will be prepared following consultation between the landscape architect and the ecologist, particularly in relation to the areas of ecological interest (priority areas) mentioned in Section 6.2. The following paragraphs therefore describe the measures to be taken in general terms only.

The following policy would be adopted in the principle of re-establishment of habitats:-

- a) Hedges - hedgerows will be established, using a mix of indigenous species. Devon Banks will be used in appropriate situations.
- b) Broadleaved Woodland - Indigenous species will be planted to link together existing areas of woodland or shrub vegetation. Woodland soils will be stored so that they can be re-used in suitable locations for woodland planting.
- c) Shrub Vegetation - As above, local species will be planted within landscaped areas and will be of particular value where they can be interspersed with existing areas of tall trees.

- d) Herb-rich Grassland - The loss of herb rich grassland will be compensated for by the recreation of similar areas by :-
 - i) Utilisation of the existing seed bank in top soil from already herb rich sites.
 - ii) Subsequent insowing or inplanting of herb species.
 - iii) Encouragement of natural in seeding from surrounding areas.
 - iv) Appropriate future management.

- e) Wetland Areas - Some of the temporary stilling basins required during construction would be retained. These would create small wetland areas which would provide an important addition to the range of habitats available within the route corridor.

Overall, the Scheme includes a very significant increase in shrub and tree planted areas, and hedgerows. Site clearance for construction will result in the loss of some 6 ha of woodland but the landscaping proposals include approximately 57 ha of shrub and tree planting. Approximately 21,000m of hedgerows and will be lost but provision will be made for some 32,000m as part of the Scheme.

Hayne Pit, Wet Wood and Claypits Coverts

The effect of the new road on these woodland sites has been substantially reduced following a review of the alignment, which has been shifted slightly northwards. The altered alignment is reflected in the revised draft Line Order which has now been published. Both Hayne Pit and Wet Wood will remain substantially intact, although the greater part of Claypits Covert will be lost. However, the ecological interest at Claypits Covert is more limited than that of some other woodlands within the route corridor. Whilst an additional shift in the alignment would further reduce the impact on these three woods, such a shift would necessitate incursion into Underdown Covert. As Underdown Covert is also a site of considerable ecological value, no further net ecological benefit would accrue.

Specific measures will be taken in order to minimise impact on the hydrological regimes of Wet Wood and Hayne Pit in order to preserve their current habitat diversity. New woodland planting will ultimately compensate for the loss of most of Claypits Covert and will link the three woodlands. Tree and shrub specimens will be chosen so as to extend and complement existing habitats in the area.

Knightshayne Bottom

Knightshayne Wood has been excluded from the list of priority areas because large parts have been overrun by laurel. Nevertheless, the woodland, which is heavily dependant on its hydrological regime, is of considerable ecological interest. Mitigation of the effects of the road will be undertaken by the following actions:

- i) Ensuring the engineering design of the new road does not affect the hydrological regime;
- ii) Enhancement of the remaining woodland including the eradication of the laurel.

Badgers

As stated in Section 6.2 above, the proposed road scheme will impinge on 11 badger territories. Following the 1990 route corridor badger survey, detailed badger protection proposals were drawn up. Proposed measures include badger fencing to exclude badgers from the carriageway and suitably located badger tunnels. Although the extent to which the various badgers will be affected by the Scheme varies considerably, it is likely that all of the social groups can continue to inhabit their existing territories following implementation of the proposed scheme. Thus, no translocation of badgers will be required. However, it will be necessary to undertake some sett closures before the commencement of construction. Set closures will be timed so as to avoid the breeding season and will be carried out in full consultation with English Nature.

Badger protection proposals will be updated and refined in due course so as to take full account of the developing road design and any changes in territorial boundaries and levels of occupancy. Finalisation of the badger protection proposals will be undertaken in consultation with English Nature.

Roe Deer

Roe Deer have become very abundant in the last few years and have become a traffic hazard. It is proposed to install game warning reflectors to deter deer from crossing the carriageway in the path of oncoming vehicles.

Dormice

Dormice are known to inhabit various sites along the route corridor and one of these sites will be affected by the proposed alignment. It is intended to set up a dormouse relocation programme for the affected site. Dormice trapping will be undertaken under licence from, and in conjunction with, English Nature and any captured animals transported to suitable alternative habitats. However, it must be added there is little experience of the practice in the UK or Europe. Extensive new planting using appropriate tree and shrub species will eventually replace and extend habitats suitable for dormice colonisation.

Other Rare or Protected Species

As far as is known, no other rare or protected species will be directly affected by the proposed road scheme so that additional specific protection measures will not be required.

General

English Nature will be consulted regarding the proposals for safeguarding badgers and dormice and their views and assistance on this and other nature conservation matters will be sought prior to finalising and carrying out the agreed measures.

Site clearance during construction will include the removal of hedges and woodland. Under the Wildlife and Countryside Act 1981, it is an offence to destroy a birds nest intentionally, whilst it is in use or being built. This applies to all birds nests, not only to those of protected species. Consultation with English Nature will be carried out to ensure that the construction programme and contract documents take due account of this provision.

The ecological features of an area are subject to continual change; for example, the occupancy and boundaries of badger territory, the presence of rare plants, animals or birds. Such changes may occur for a variety of reasons, including changes in land management. Further brief surveys will therefore be carried out at appropriate times to monitor changes and, if necessary, more detailed investigations carried out and appropriate measures decided upon.

Full details of the ecological investigation, the findings and recommendations are contained in Volume 2, Part B : Ecological Report.

7. EFFECTS ON HERITAGE

7.1 Existing Heritage Interests

Although in earlier times the Blackdown Hills had a reputation as a wild, bleak and forgotten place, travellers in the eighteenth century were beginning to comment on the remarkable views to be seen. In 1724, Defoe commented that the view from Honiton Hill "is the most beautiful landscape in the world - a mere picture - and I do not remember the like in any other place". Other travellers wrote books on the area, but nonetheless its popularity remained modest until the late nineteenth century when wilder scenery became more fashionable. In the twentieth century, the area became popular with artists, some well known, and the Camden Town Group made its weekend retreat at Applehayes near Clayhiden, in the north-west of the area.

The area also has a number of historical associations, including the march of the protestant Duke of Monmouth to his defeat at Sedgemoor in 1685. The first Viscount Sidmouth, who was raised at Upottery Manor, became Prime Minister in 1801-4. John Graves Simcoe, the first Lieutenant Governor of Upper Canada (Ontario), came from Wolford, north-west of Honiton.

The proposed Scheme does not directly affect any of these heritage interests, but a preliminary archaeological assessment of the Scheme, based on documentary evidence, suggests that a wealth of archaeological sites and features such as settlements and boundaries exist along, or lie directly adjacent to, the route. Given the concentration of these features, it is inevitable that some will be affected by the construction of the new road. Therefore, a detailed field survey of the entire length of the Scheme was carried out in conjunction with a documentary study of any new sites identified. This led to the identification of 24 archaeological sites lying in the vicinity of the new roads, from which it is clear that the new roads will pass through several areas of great interest.

This part of north-east Devon has been densely settled in medieval and post-medieval times but has never been subjected to archaeological excavation or detailed field study. Much of the valley land has been enclosed for agricultural use at an early period, but the level summit of the plateau was left open as common land until it was enclosed by legislation in the mid 19th century.

A preliminary archaeological survey of the proposed Blackdown Hills Environmentally Sensitive Area has shed much more light on the archaeological potential of the area. It is now known, for example, that there was an extensive ironworking industry here, probably dating back to Roman times. Important sites have already been identified around Cotleigh, Yarcombe and Upottery, but many more undoubtedly await discovery. Active research on the location of further sites is continuing and this may have further implications for the scheme proposals.

The majority of the sites identified relate to medieval and later periods. This is a reflection of the available sources for identifying archaeological sites, as prehistoric and Roman sites are rarely identified without some sort of field evidence, notably artifact recovery. During the assessment and field survey, there was little opportunity for this, but the sites identified do hint at the possibility of prehistoric landscape features lying along the route of the new roads. Roman sites may also exist in the area, particularly at the eastern end of the route, attested by sites which have been found in adjoining parishes.

Two sites stand out as of special interest, those at Monkton and Knightshayne. A pre-Conquest monastic establishment, or a settlement attached to such an establishment, is probably located at Monkton. This was succeeded by a medieval manorial complex which included a grange, chapel, mill and deerpark. At Knightshayne, a complex of deserted settlement sites have been identified, although their character and dates have not yet been ascertained. However, the form and density of settlement here is unlike that of any other part of Devon. In addition, there is the site of Crinhayes, which is represented by three separate settlements.

There are buildings of historic interest at Rawridge, Upottery and Yarcombe, but there are no buildings belonging to the National Trust. Listed buildings are shown on Figures 6a-d; three exist within the study area in the vicinity of the existing A35: Marwood House, Copper Castle and Bishops Tower. Five listed buildings occur in the vicinity of the existing A30/A303: 'Glen Eden', St Mary Magdalene's Church and the village pump in Monkton, Crinhayes Farm near Devonshire Inn, and 'Birch Mills' and 'The Old Thatch' immediately south of Marsh.

7.2 Effects of the Proposed Roads

The sites identified by the assessment should not be regarded as a definitive list and further sites are likely to come to light during subsequent routine fieldwork and the soil-stripping stage of construction. Most of the sites identified are affected to a degree, but the extent and severity of the effects cannot be determined at this stage because of the way in which the assessment was necessarily carried out. The significance of the sites also varies, and will influence the further work which may be carried out, as described in the following section on mitigation measures.

7.3 Mitigation of Adverse Effects on Archaeology

Further archaeological work will be carried out under the auspices of the Department of Transport before and during construction to mitigate the effects of the proposals on known sites and on sites which might be revealed by further investigations or during the construction contract. The additional work is described briefly below.

Preservation

The existing listed buildings which lie close to the Scheme but are not affected by it will be drawn to the attention of the contractor and provisions in the construction contract included to avoid accidental damage to the boundaries and curtilages of these sites.

Other archaeological sites may be revealed by the works described below which might require preservation, and appropriate measures will be taken in such cases.

Area Excavation

This course of action is at present recommended for two sites, at Monkton and Knightshayne. The extent of the work required will be revealed by the evaluation excavations described below which might reveal the need for area excavation of other sites.

Evaluation Excavations

This is recommended for six sites where archaeological deposits are thought to survive, but their nature and state of preservation are unknown. These excavations should determine the extent of further mitigation measures (ie: preservation or area excavation). The sites are located at Honiton Hill, near Cheney's Farm Interchange; near Monkton (2), at Crinhayes Farm; and again at Knightshayne.

Field Survey

Field surveys will be carried out without ground disturbance at two sites whose archaeological remains are preserved as earthworks above ground. This work would be carried out before any evaluation excavation which might disturb the ground surface. The two sites are again in the vicinity of Monkton and Knightshayne.

Building Recording

Devonshire Inn Cottage, which will be demolished by the scheme, is of interest and details of it will be recorded. The level of detail will be established following an inspection at the appropriate stage.

Additional Sites

As mentioned above, it is probable that additional sites will come to light both before and during construction and contingency provisions will be made to cover this eventuality, including rapid salvage excavation of archaeological features identified during the construction stage.

Watching Brief and Salvage Operations

A watching brief will be carried out throughout the construction stage, particularly during the early phases, when the ground is first disturbed. The assessment identified some 10 sites where knowledge of archaeological deposits is extremely limited, and evaluation excavations either cannot be reasonably justified or are not feasible, and a watching brief is appropriate in such cases. In addition, construction work may reveal previously unknown archaeological remains, particularly of the prehistoric and Roman periods, which cannot be identified without ground disturbance.

Full details of the archaeological investigations, including its findings and recommendations, are included in Volume 2, Part C, of this Statement.

8. EFFECTS ON NOISE AND AIR QUALITY

8.1 Noise

The authority responsible for a new, improved or altered highway has a duty to offer a grant to the owners of properties entitled under the Noise Insulation Regulations. Entitlement is dependent basically on the noise level and the amount by which it increases. The assessment of noise is carried out in accordance with the 'Calculation of Road Traffic Noise' and takes account of traffic volume, speed and composition, the presence or otherwise of barriers, the nature of the intervening ground, etc. The traffic volume used is that estimated to use the new road 15 years after its opening, assuming 'high' traffic growth.

The noise level is expressed in terms of the level exceeded for 10% of the time, and is the arithmetic average of the hourly volume for each of the 18 hours between 0600 and 2400 hours. This has been found to correlate well with dissatisfaction or disturbance arising from traffic noise.

The analysis covers all properties within 300m of the nearest point on the carriageway of the new road which is the limit of eligibility under Regulation 7 of the Noise Insulation Regulations. Properties fronting onto the existing trunk road already experience high noise levels and these could worsen as traffic volumes increase. Construction of the new roads will alleviate the situation and many properties, particularly those near the existing A35, will experience a considerable improvement. A few properties will be closer to the new road and will be exposed to a higher noise level, although these are relatively few in number.

8.2 Mitigation of Noise Effects

An offer of a grant for the installation of noise insulation measures, usually in the form of double glazing, will be made to the owners of all properties which are affected by the Scheme and are eligible under the Regulations. In some cases, this will apply to properties which will be further away from the new road than they are from the existing trunk road, but where a different facade is affected. In others, properties at the end of the Scheme will be eligible under the terms of the Regulations, although the changes in the position or height of the new road will be very similar to the existing.

An earthmound will be constructed to the north-west of the Otter Valley Park which will provide a degree of noise screening as well as reducing visual intrusion. A similar mound will be constructed at Monkton to shield certain properties which will be close to the new road.

The numbers of properties which will experience an increase in noise level or enjoy an improvement are given in the Appraisal Framework contained in this Statement (see Section 13 and Appendix 3).

8.3 Air Quality

The combustion of a hydrocarbon fuel with air produces mainly carbon dioxide, nitrogen and water. However, combustion engines are not perfectly efficient so some fuel is not burnt, or is only partly burnt, resulting in the presence of hydrocarbons and other organic compounds, carbon monoxide and soot. In addition, the combustion process also leads to the formation of oxides of nitrogen. Lead added to the fuel to improve combustion is also found in the emissions. Hydrocarbons, carbon monoxide, oxides of nitrogen, soot and lead have normally been regarded as the most serious pollutants whose emission is legally restricted in many countries. Because of its contribution to greenhouse gases, carbon dioxide, formerly thought of as a benign atmospheric gas, is now also regarded as a pollutant.

European Community emission standards have been gradually strengthened, although the changes have been relatively small. From the beginning of 1993, however, all new petrol-engined cars require catalytic converters to meet more stringent exhaust standards. This will produce a very substantial reduction in rates of emission. More stringent standards for diesel engines are also being applied in 1993, with further reductions in 1996. The amount of lead in petrol has gradually been reduced over the years. From 1991, all new petrol engined vehicles had to be capable of using unleaded petrol. These measures will lead to the virtual elimination of this pollutant.

An assessment of the localised air quality has been carried out at various points on the new roads. The assessment estimates the probable concentration of the three main health threatening pollutants, ie: carbon monoxide, hydrocarbons and oxides of nitrogen, and compares them with desirable air quality standards. This assessment is carried out for the current year and under traffic conditions predicted for 15 years after the Scheme is opened to traffic, both with the new roads and assuming they are not built. The analysis takes into account distance from the road, traffic volume, composition and speed, etc. Traffic in the future year is estimated on the basis of 'high' growth.

The calculations indicate that there will be no adverse effects compared with the situation which would arise if the Scheme is not built. There will be an increase in the area of Cheney's Farm Junction, but this will be well within the relevant air quality standard. East Honiton will benefit by the removal of the trunk road, the proposed Bypass being up to 1½km from the built-up area. The new roads will help to reduce the adverse affects on air quality which increasing traffic volumes might otherwise have caused, through more efficient use of fuel arising from less congestion, fewer steep gradients or sharp bends and fewer junctions.

9. EFFECTS ON AGRICULTURAL AND OTHER PROPERTY

9.1 Effect on Agricultural Properties

The effects of the proposals on agricultural operations will be minimised by reducing landtake as far as possible. This will generally be achieved by using the steepest practicable slopes for embankments and cuttings consistent with the geology of the area, unless landscaping measures require otherwise. Where extensive severance is unavoidable, disruption to farming operations will be minimised by the provision of alternative accesses where possible. These will in many cases be subject to joint use by the public and/or other landowners.

The total area of land required for the Scheme is 194 hectares, including 52 hectares under licence. Of this, 182 hectares is agricultural and 34 farms or field groups are affected. The land under licence is required temporarily for works such as drainage and land shaping, after completion of which it is intended that this land should be returned to its former use. Further details are given in the Appraisal Framework (see Section 13 and Appendix 3).

9.2 Effect on Other Property

The Scheme as now published involves the demolition of one dwelling and one business premises. The amended layout of the junction at Stopgate Cross has avoided the need to demolish 'Eastgate' and Stopgate Cross Service Station and the associated dwelling. Some properties are affected by loss of land without demolition being necessary. In a number of instances, access to property is affected by the closure or diversion of existing roads.

10. EFFECTS ON WATERCOURSES AND SUPPLIES

10.1 Existing Watercourses and Supplies

The two principal rivers in the area are the Otter and the Yarty. They flow from the Blackdown Hills, and are fed by numerous small tributaries from side valleys. The flood plains are comparatively narrow and the rivers can rise and fall very rapidly in times of flood. In July 1968 the River Otter almost inundated the A30 trunk road at Monkton when flood waters rose to a height of approximately 106m AOD.

Neither river is used directly for public water supply, but on the valley side springs occur at the interface zone between the Mercia Mudstone and Upper Greensand formations. Groundwater from these minor aquifers and their spring issues sustain a number of private water sources.

Approximately 9% of the South West region's public water supply is obtained from groundwater, and the most important aquifer is that of the Otter Valley. Abstraction takes place over the middle and lower reaches some distance beyond Honiton, but the Upper Greensand springs and minor tributaries in the upper reaches are important as primary sources of recharge and for sustaining base flow. None of the abstraction licences for public supply are conditioned by prescribed flows originating north of Honiton.

10.2 Methods of Avoiding Pollution and Other Adverse Effects

Discharges of water from the road surface into streams and watercourses would be through oil interceptors and, where necessary, energy dissipators.

The offsite surface water outfalls have been agreed with the National Rivers Authority (NRA). Each outfall is provided with an oil interceptor to remove potential pollution due to oil and fuel leakage. In addition, various works will be undertaken in consultation with the NRA to improve the existing water courses to ensure that any flooding problems will not be worsened. These works

could include bunding, improvements to existing channels, stone lining of channels to dissipate energy and prevent scouring, improvement of existing culverts and the provision of new culverts.

Although the value of the woodland at Knightshayne Bottom is reduced by being largely overrun by laurel, it nonetheless contains various features of ecological interest whose character and variability is heavily dependent on the hydrological regime. The hydrology and hydrogeology of this area will therefore receive particular attention in the design of the road. The long downhill run from the higher ground down into the Otter and Yarty valleys will also be carefully designed to have regard to the effect of large discharge volumes which could be particularly polluting after an extended dry spell.

The construction contractor will be required by the contract to prevent pollution and the measures imposed will follow advice obtained from the NRA. Rainwater falling on the works may wash suspended solids, etc, into nearby streams. To prevent this occurrence, areas have been identified in consultation with the NRA for temporary ponds or 'stilling basins' where suspended material can settle out. Some of these will be retained and will form an integral part of the landscaping proposals and provide additional habitat diversity.

Hydrogeological investigations have included assessment of water interests, including riparian rights, in accordance with the NRA's policy and practice for the protection of groundwater. All private water sources in the area have been identified. For the relatively small number which may be affected by the proposed road improvements, alternative sources have been proposed. All replacement sources will comply with the relevant provisions of the Water Resources Act 1991.

11. EFFECTS DUE TO CONSTRUCTION

11.1 Advance Works

Some works in advance of the main construction works will be necessary. Most of these will relate to the need to divert existing services, such as water and gas, away from the site. Some of these works may take place at a comparatively early stage where they may have to be carried out during a period of reduced demand. For example, the diversion of gas mains is frequently carried out during the summer months when demand is low and sections of the pipe network can be taken out of service without affecting supplies to consumers.

11.2 Effects on Sites of Ecological and Archaeological Interest

Where sites of ecological or archaeological interest are affected, appropriate works will be carried out to protect them, as described in Sections 6 and 7. Certain activities must take place at, or avoid, prescribed times. For example, site clearance must avoid times when nesting birds would be disturbed and translocation of certain species to new sites must avoid breeding periods or when the rearing of young might be affected.

Any activities affecting such interests will take due account of these requirements. Other mitigation measures are as described in Sections 6 and 7.

11.3 Traffic Routes During Construction

Traffic will continue to use the existing road network during construction but some temporary roads and diversions will be unavoidable. Where appropriate, construction of the new works will be phased and some sections brought into use at an early stage to permit construction to proceed elsewhere. The appointed contractor will be responsible for the detailed planning of construction within a framework of requirements and objectives included in the contract.

11.4 Movement of Materials and Construction Methods

As far as possible, construction traffic will be restricted to the area of the works but the use of other roads is unavoidable for the transport of plant and materials to and from the site. The routes used for these purposes will be laid down in the construction contract and chosen in consultation with the local authorities to minimise disturbance and nuisance consistent with the reasonable needs of access. Obviously, the existing trunk roads at each end of the Scheme will be used as much as possible.

The proposed A35 will have nearly balanced volumes of soil in the cuttings and embankments. There will be a surplus of excavated material from the A30/A303 Improvement of about 300,000 cubic metres. Much of this will be used in the landscaping which forms part of the landscape proposals. The rest will be transported off-site to tips licensed by the Local Authorities. The advice and assistance of the Local Authorities will be sought regarding routes to the tips to minimise disturbance and nuisance.

The topsoil which will have to be removed will be stored nearby and re-used to cover the new verges, embankments, cuttings and other landscaped areas. The temporary storage areas will be provided by the contractor who will, nonetheless, have to comply with any relevant legal requirements. Trees and undergrowth will be disposed of by the contractor with full regard to the environment.

The roads themselves will probably have a foundation of crushed rock with a surfacing of either bituminous macadam and asphalt or concrete. In either case, the volumes of material will be much the same. These materials will have to be imported from off-site proprietary quarries and mixing plants. The total amount of quarry products will be in the order of 360,000 cubic metres.

11.5 Noise and Other Effects

Construction works inevitably cause noise and appropriate controls will be included in the construction contract to limit the level and duration of noisy activities. Many sources of noise are dependent on the contractor's chosen construction methods, and pile driving activities, often associated with the building of structures such as bridges, can be particularly troublesome. It is expected that such activities will be relatively limited and unlikely to cause widespread annoyance. Nonetheless, it is the Department's policy that insulation should be offered to those properties that suffer from high construction noise over long periods.

The local authority will be involved in setting acceptable noise levels, and normal site working hours will be laid down in the contract. Consent will be required for work outside normal hours. The contractor will be required to have regard to BS5228, Noise Control on Construction and Open Sites, and will have other specific requirements imposed on him to enforce a reasonable degree of noise control. Blasting will not be permitted.

Provision will be included to avoid vehicles carrying mud onto existing roads by the use of tyre washers and road cleaning equipment. In dry weather, water sprinklers will be used to dampen down dust.

12. CONSULTATIONS

Members of the public, local authorities and local and national organisations all have a valuable part to play in the planning of new road schemes. This source of knowledge and information is tapped by the Department by consultations carried out at various stages throughout the development of a scheme.

- o In the initial stages and while preliminary routes are developed, information about the area is sought from Local Authorities, Government Departments and Agencies and Statutory Undertakers.
- o Public consultation is carried out by issuing a consultation document inviting the public's views and by holding exhibitions of plans. This often leads to ongoing discussions.
- o Following public consultation, an announcement is made of the Department's Preferred Route, frequently leading to a further expression of views.
- o Publication of draft Orders under the Highways Act, the publication of the Environmental Statement and a further exhibition of plans leads into a formal objection period lasting at least six weeks.

The following is a list of those consulted at various times:

Government Departments and Agencies:

Inland Revenue : Valuation Office (Mineral Valuer)
District Valuer
Ministry of Agriculture, Fisheries and Food
Property Services Agency
Ministry of Defence
National Coal Board
South West Regional Health Authority
National Rivers Authority

Local Authorities:

Devon County Council
East Devon District Council
Honiton Town Council
Offwell Parish Council
Monkton Parish Council
Upottery Parish Council
Yarcombe Parish Council
Stockland Parish Council
Devon and Cornwall Constabulary
Western Traffic Area
Devon Fire Brigade

Statutory Undertakers:

British Gas
British Telecom
Central Electricity Generating Board
South Western Electricity Board
South West Water
Oil and Pipeline Agency
British Waterways Board
British Rail

Other Bodies:

Council for the Protection of Rural England
Devon Archaeological Society
Devon Conservation Forum
Devon Federation of Women's Institutes (Countryside Sub-Committee)
Devon Trust for Nature Conservation Ltd
Honiton and District Agricultural Association
Nature Conservancy Council
National Farmers Union
South West Council for Sport and Recreation
Council for British Archaeology
The Countryside Commission

Freight Transport Association
National Playing Fields Association
National Trust
Royal Commission on Historical Monuments.

A further 40 bodies were consulted from whom no replies were received. 798 people attended the public consultation in November 1986, and a total of 587 completed questionnaires were returned, mostly from individuals.

13. APPRAISAL FRAMEWORK

A summary of the environmental effects of the published scheme is provided in tabular form in the Appraisal Framework which is included in full at Appendix 3. The format follows that specified in the Department of Transport's Manual of Environmental Appraisal. The framework summarises the overall effects of construction and operation of the published scheme. The framework also describes the implications of not constructing the scheme within columns headed 'Do-Minimum'.

The summary of the environmental effects of the Published Scheme, as presented within the framework, has been derived from more detailed work comprising consultations with Statutory Authorities and other bodies, desk studies and computer modelling. The time and vehicle operating cost savings, reductions in accidents, scheme costs and benefits are based on data current at December 1992.

The framework is sub-divided into six groups which consider the effects on 1) travellers; 2) occupiers of property; 3) users of facilities; 4) policies for conserving and enhancing the area; 5) policies for transport and development; and 6) financial effects.

The effects on travellers are considered in Group 1 which comprises an economic appraisal of the savings associated with the scheme, an estimate of the reduction in road traffic accident casualties as a result of the scheme, and estimates of driver stress and quality of views from the road. Estimated values for the various items are quoted for both 'low' and 'high' traffic growth forecasts.

Within Group 2, effects of the scheme on occupiers are assessed including residential, industrial, commercial, farming and other interests. The effects considered relate to changes in the noise and visual environment, severance, and loss of land or buildings.

The implications of the scheme for users of facilities which will be affected are addressed in Group 3, followed, in Group 4, by a description of the effects of the scheme on policies for conserving and enhancing the area. The latter group is concerned with the change in the general environmental quality of the area, rather than the direct effect on individuals. Where policies would be affected by not constructing the scheme the effect is referred to in the 'do minimum' column.

The degree to which the scheme complies with central and local government policies relating to land use and economic development and transport is outlined in Group 5.

Group 6 considers the Net Present Value (NPV) of the scheme by balancing the scheme costs against the benefits derived from its operation.

Certain issues listed within Annex III of the European Council Directive on Environmental Assessment (85/337/EEC) have not been considered within the framework, such as effects of the scheme on climatic factors. The effects of consequential development have not been considered as these would be subject to the policies of the relevant Planning Authorities.

14. SUMMARY AND CONCLUSIONS

14.1 Routes

The improvement of the road from Marsh to Honiton is one of a number of improvement schemes on the A30/A303 London-Penzance Trunk Road. The A35 Honiton Eastern Bypass is similarly one of a number of road improvements on the A35 Folkestone-Honiton Trunk Road and will enable trunk road traffic between the A35 and the A30 to bypass Honiton town centre. Although the A30/A303 improvement follows an existing route corridor, the Honiton Eastern Bypass follows a new alignment which climbs the steep area of Honiton Hill.

Both the A30/A303 improvement and the A35 Honiton Eastern Bypass pass through an Area of Outstanding Natural Beauty. The Environmental Statement has sought to identify the various effects of the new roads on the area through which they pass. It outlines the corresponding mitigation measures which would be undertaken in response to the sensitivity of the countryside through which the routes pass, and demonstrates the various alternative routes considered and their corresponding environmental constraints

14.2 Alternative Routes Considered

The Environmental Statement outlines various route corridors which were considered prior to the Public Consultation which was held in November 1986. Following extensive feasibility studies single route proposals for the A30/A303 and the A35 were presented at the Public Consultation which produced strong support from the general public, following which the Minister announced that the Preferred Route would be the route presented with some minor modifications.

14.3 Landscape and Ecology

The Statement describes how the Published Scheme has been located to minimise the effect on the landscape and how extensive planting of indigenous species and hedgerows in appropriate areas is designed to knit together severed field patterns and wooded areas. The recommendations of the ecological appraisal for mitigating the adverse effects of the scheme on flora and fauna have been taken into account. Proposed measures include replacement habitat creation, the construction of badger fences and crossings, dormouse relocation and the installation of game warning reflectors to deter deer from crossing the road.

14.4 Heritage

Some 24 archaeological sites have been identified by the Archeological Assessment and are referred to in the Statement, as are listed buildings.

It is concluded that the schemes will have little effect on listed buildings but some impact on archaeological sites is inevitable. In liaison with English Heritage, necessary works will be carried out prior to construction. During construction, a watching brief will be maintained and rapid salvage operations carried out as necessary.

14.5 Noise and Visual Intrusion

A small number of properties would experience an increase in traffic noise levels and, where appropriate, noise insulation or other measures would be undertaken to reduce this. However, many properties adjacent to the existing road would experience a reduction in such noise and overall the net effect of noise is not significant. Similarly, although some properties will be affected by visual obstruction and intrusion, there will be benefits arising from the removal of traffic from the existing trunk road which will reduce intrusion, particularly to properties in east Honiton.

14.6 Water Pollution

The discharge points for surface water drainage from the new roads have been agreed with the National Rivers Authority and measures have been outlined in the Statement to remove pollutants by the use of interceptors and stilling basins where necessary to control the rate of discharge into the existing streams and water courses.

14.7 Conclusions

This Statement comprehensively examines the effect of the scheme on the environment. The scheme is sympathetic to the areas of countryside through which it passes whilst adequately dealing with forecast levels of traffic on these routes and representing value for money. Environmental impacts have been minimised as far as possible and extensive measures are being incorporated to mitigate the adverse environmental effects of the scheme.

APPENDIX 1 : NON-TECHNICAL SUMMARY

APPENDIX 2 : DOCUMENT DEPOSIT POINTS

This Environmental Statement may be examined by the general public free of charge during normal office hours until 31 October 1993 at the following locations:

Department of Transport
Southwest Construction Programme Division
Room 826
Tollgate House
Houlton Street
Bristol
BS2 9DJ

Devon County Council
Lucombe House
County Hall
Topsham Road
Exeter
EX2 4QW

East Devon District Council
Knowle
Sidmouth
EX10 8HL

Honiton Library and Information Centre
48 New Street
Honiton
EX14 8BS

Offwell Sub-Post Office
Offwell
Honiton
EX14 9SA

Upottery Sub-Post Office

Mill Stream

Rawridge

Upottery

Honiton

EX14 9PS

Yarcombe Sub-Post Office

Glebe Farm

Yarcombe

Honiton

APPENDIX 3 : APPRAISAL FRAMEWORK

GROUP 1 : TRAVELLERS

Sub-Group	Effect	Units	Published Scheme	Do-Minimum	Comments
Car Users	Time Savings	£ (PVB)	High 31.683	0	<p>Notes A, B and C apply to all the comparisons on this page.</p> <p>A. Each column shows the improvement of the particular route over the 'Do Minimum' option. Hence the 'Do Minimum' entries are zero.</p> <p>B. Present value of benefits (PVB) are for 30 year periods from the expected date of opening and discounted to 1988 prices at 8% pa.</p> <p>C. It is assumed that the national average figures for vehicle occupancy and for accident costs will apply.</p> <p>Traffic figures used in the analysis include traffic which is likely to transfer from other strategic routes to the A30/A303 following its improvement.</p> <p>Local accident rates derived from 1987-1991 data.</p>
	Vehicle Operating cost savings	£ (PVB)	Low 19.272	0	
Users of Light Goods Vehicles	Time Savings	£ (PVB)	-1.668	0	
	Vehicle Operating Cost Savings	£ (PVB)	2.650	0	
Users of Other Goods Vehicles	Time Savings	£ (PVB)	4.746	0	
	Vehicle Operating Cost Savings	£ (PVB)	-0.208	0	
Bus Operators and Passengers	Time Savings	£ (PVB)	2.359	0	
	Vehicle Operating Cost Savings	£ (PVB)	1.304	0	
All Vehicle Travellers	Time Savings	£ (PVB)	-0.140	0	
	Vehicle Operating Cost Savings	£ (PVB)	-0.189	0	
All Vehicle Travellers	Time Savings	£ (PVB)	0.322	0	
	Value of Accident Savings	£ (PVB)	0.002	0	
		£ (PVB)	0.001	0	
		£ (PVB)	12.663	0	
		£ (PVB)	8.622	0	

GROUP 1 : TRAVELLERS (Cont'd)

Sub-Group	Effect	Published Scheme	Do-Minimum	Comments
Cyclists	Safety	<p>Situation will be improved. The Preferred Route will provide better road width and visibility. Also, the existing A30/A303, A35 trunk roads will be relieved of most of their traffic and thus will provide a safer and more enjoyable route for cyclists.</p>	<p>Existing traffic congestion hazardous for cyclists. Situation will deteriorate with the increase in traffic on A30/A303 and A35.</p>	<p>1 metre hardstrips on the new A30/A303 will improve safety for cyclists.</p>
Pedestrians	Change in Amenity	<p>Major improvement by reducing vehicular/pedestrian conflict in the vicinity of A35 Kings Road due to removal of trunk road traffic.</p>	<p>Hazards on A35 Kings Road will also increase with the growth in traffic volume and an increase in pedestrian/vehicular conflict</p>	<p>A footpath is available on the existing A35, Kings Road</p>
	Safety	<p>Will remove A30 through traffic from Monkton and so reduce hazard.</p>	<p>Hazards on A30 at Monkton will increase with the growth in traffic volume.</p>	<p>No footway available on existing A30 for pedestrians near to the Monkton Court Hotel</p>
		<p>Safety will be improved by a large reduction in traffic on the existing A30/A303 and A35 after construction of the new roads.</p>	<p>With an increase in traffic on the existing A30/A303 and an increase on the A35 the danger to pedestrians will increase.</p>	<p>The existing A30/A303 and A35 Kings Road will become increasingly difficult to cross by people and animals</p>

GROUP 1 : TRAVELLERS (Cont'd)

Sub-Group	Effects	Published Scheme	Do-Minimum	Comments
Pedestrians (Cont'd)	Severance	<p>Crossing of existing trunk road improved by reduction in traffic volume.</p> <p>Severance of existing side roads will also sever pedestrian routes involving detours via new over- or underbridges. Lengthy detours at Ford Cross (max 2.3km), Northcote Hill Road (max 700m), Aplin's Farm (max 650m), Colleigh Crossing (max 250m).</p>	Severance would be worsened only by increasing traffic making it more difficult to cross	All footpaths are very lightly used.

GROUP 2 : OCCUPIERS

Sub-Group	Effect	Units	Published Scheme	Do-Minimum	Comments
Residential	Properties to be Demolished	Number	1	0	Devonshire Inn Farm Cottage. The cost of acquisition is included in Group 6.
	Noise	Number of houses experiencing increase of more than: > 15 dB(A)L10 10-15 dB(A)L10 5-10 dB(A)L10 3-5 dB(A)	0 0 58 23	Increases as traffic flow increases	Does not include farm houses (see Commercial and Industrial) or mobile homes. The predicted changes in noise levels are the differences between the prevailing noise levels existing immediately before the start of construction and the forecast noise levels for the year 2012 (ie: 15 years after completion of the work). The units are dB(A) L10 18hr, 6am-midnight and AAWT. Allowance has been made for the presence of noise barriers in calculating these figures. Approximately houses are likely to be eligible for sound insulation.

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effects	Units	Published Scheme	Do-Minimum	Comments
Residential (Cont'd)	Noise (Cont'd)	Number of houses experiencing decrease of:			Does not include farm houses or mobile homes Some houses may experience a reduction in noise on one facade but an increase on another.
		> 15 dB(A)L10 10-15 dB(A)L10 5-10 dB(A)L10 3-5 dB(A)L10	0 1 55 * 14	0 0 0 0	
	Visual Obstruction	Number of Properties within 300m of centreline subject to: High Moderate Slight			
	Visual Intrusion	Number of Properties subject to: High Medium Low			
			7 5 12	No Change	Does not include farm houses (see Commercial and Industrial) or mobile homes
			23 15 8	Visual intrusion will increase as traffic flow increases	Does not include farm houses (see Commercial and Industrial) or mobile homes. Landscaping proposals will, over time, reduce the visual intrusion

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effect	Published Scheme	Do Minimum	Comments
Residential (Cont'd)	Severance	Relief from trunk road traffic will reduce severance effects at Monkton in particular. The Old Thatch and Birch Mill will be severed from Marsh by new road (A30/A303). Severance at Ford Cross caused by closure of junction. Severance for properties in Northcote Hill (A35).	Severance will increase at Monkton (A30) with growth in traffic volume. Severance will increase on Kings Road (A35) with growth in traffic volume.	UC54 link road will alleviate severance at Marsh
	a) Relief from existing severance b) Imposition of new severance			
	Access	Access via the network and new side roads and junctions	No Change	
	Disruption during Construction	There are 87 houses within 100m of the site, of which 21 will be affected by disruption during the contract.	No Change	

GROUP 2 : OCCUPIERS

Sub-Group	Effect	Units	Published Scheme	Do-Minimum	Comments
Industrial & Commercial Premises	Properties to be Demolished		Sawmill (Wylam House Farm) BT Telephone Exchange (Near to Devonshire Inn Farm) Otter Vale Filling Station	No Effect No Effect No Effect	Erected after TR111 Order published in 1979. Would require complete demolition as sawmill situated on the line of the road. Complete demolition required. Reprovision on alternative site. Filling station no longer in use
	Noise	Number of Premises experiencing increase of: > 15 dB(A)L10 10-15 dB(A)L10 5-10 dB(A)L10 3-5 dB(A)L10	0 0 2 3	Increases as traffic flow increases	Agricultural premises including those for residential use, ie: Wylam Farm House Sawmill (see below). The predicted changes in noise levels are the difference between prevailing noise levels existing immediately before the start of construction and the forecast levels for the year 2011 (ie: 15 years after completion of the work). The units are dB(A)L10 18hr, 6am-midnight and AAWT. Allowance has been made for the presence of an amenity bund at Otter Valley Park in calculating these figures.

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effects	Units	Published Scheme	Do-Minimum	Comments
Industrial and Commercial Premises (Cont'd)	Noise (Cont'd)	Number of Premises experiencing decrease of: > 15 dB(A)L10 10-15 dB(A)L10 5-10 dB(A)L10 3-5 dB(A)L10	0 1 2 4	No Change	
	Visual Obstruction	Number of premises within 300m of centre line subject to: Severe Significant Slight	0 2 3	No Change	
	Severance	High Moderate Slight	2 10 21	Severance will increase with growth of traffic	

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effect	Units	Published Scheme	Do-Minimum	Comments
Industrial and Commercial Premises (Cont'd)	Access		Access to the preferred route from Industrial and Commercial Premises will be via the local road network and the new link roads and junctions	No Change	
	Disruption during Construction		There are 18 properties within 100m of the site, of which 14 will be affected by disruption during contract	No Change	
Schools Manor House Primary School	Noise reduction	dB(A)L10	Reduction of 5 dB(A)L10	Noise increases as volume of traffic increases	School is situated on Springfield Road at a distance of 130m from Axminster Road (A35)
	Visual Obstruction		None	No Change	
	Severance		Improved by reduction of traffic on existing A35	Will increase as volume of traffic increases on existing A35	
	Disruption during Construction		None	No Effect	

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effect	Units	Published Scheme	Do-Minimum	Comments
Farming a) General		Number of farms affected by landtake	34 (26 excluding small groups of 1 or 2 detached fields)	0	Of the 26 farms (excluding detached fields) affected by the route, 5 are considered severely affected, 8 are significantly affected and 13 slightly affected. A total of 14 farms will suffer some severance. Some areas of severed land will be included for essential landscaping purposes.
	Landtake	Hectares of land: Grade 2 Grade 3 Grade 4 Non-Agricultural	12.4 93.8 26.3 9.7	0 0 0 0	

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effect	Published Scheme	Do-Minimum	Comments
b) Specific Farms subject to significant changes				i) - xxvii) relate to A30/A303 xxviii) - xxxvi) relate to A35
i) Cheneys Farm	Land Loss	Access to Farm not affected. Large area of land taken for new road and intersection A30/A35	No Effect	
ii) Higher Northcote Farm	Land Loss	Land taken for slip road and A30 diversion. Access to retained land unchanged	No Effect	See also xxxv)
iii) F W Pike	Land Loss	Strip of land taken parallel to existing trunk road. Access via Ford Cross link road.	No Effect	Isolated field group
iv) Ridgeway Farm	Severance Land Loss	Land severed by new road. Access maintained via existing road. Access to severed land via Aplin's Farm Underbridge and Ford Cross link road	No Effect	Isolated field group See also xxix)
v) Littletown Farm	Severance Land Loss	Land severed by new road. Access maintained via existing road. Access to severed land via Aplins Farm Underbridge and Ford Cross link road	No Effect	Isolated field group

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effect	Published Scheme	Do-Minimum	Comments
vi) Monkton Barton Farm	Severance Land Loss	Land west of existing A30 severed by new road. Access maintained via existing Aplins Farm Underbridge and Ford Cross link road.	Increasing hazard crossing existing A30 due to traffic growth	
vii) Aplins Farm	Severance Land Loss	Land to be acquired west of existing A30; access from existing A30. Land to be acquired on east side of A30 causes severance. Access from existing A30 and Hedgend Road via Aplin's Farm Underbridge	Increasing hazard crossing existing A30 due to traffic growth	
viii) Yard Farm	Severance Land Loss	Land on west side of existing A30 unaffected. On east side land severed. Access to be provided from Hedgend Road across Aplins Farm via Aplin's Farm Underbridge.	Increasing hazard crossing existing A30 due to traffic growth	
ix) Hugginhayes Farm	Severance Land Loss	The new road severs fields on the east side of existing A30. Access to be provided from existing A30, Viney Lane and new link road. Land on west side not affected. Access between the two parts of the farm via Cotleigh Crossing Underbridge	Increasing hazard crossing existing A30 due to traffic growth	
x) Perrie Hale Farm	Land Loss	Non-agricultural land taken for new road. Main access from Viney Lane cut. New access to be provided from A30 will be very steep	No Effect	Isolated forestry area

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effect	Published Scheme	Do-Minimum	Comments
xi) Wellsprings Farm	Land Loss Severance	Land west of existing A30 unaffected. Land for new road taken on east side. Access to severed land from Cooks Moor Lane. Access between two parts of the farm via Cotleigh Crossing Bridge.	Increasing hazard crossing existing A30 due to traffic growth	
xii) Courtmoor Farm	Land Loss Severance	Small area taken at west side of existing A30. Access still available from existing road. On east side access available from Cooks Moor Lane. Access between two parts of farm via Cotleigh Crossing Bridge.	Increasing hazard crossing existing A30 due to traffic growth	
xiii) Manor Farm	Land Loss	Small area taken on east side of existing A30. Access available from Stockland Hill.	No Effect	Single field
xiv) Devonshire Inn Farm	Severance Land Loss	Land taken on both sides of existing existing A30. Access on west side from Sandy's Lane, on east side from Stockland Hill Road. Access across farm via Sandy's Lane Underbridge.	Increasing hazard crossing existing A30 due to traffic growth	
xv) Hansons Farm	Land Loss	Small area of land on west side of existing A30 taken. Access to retained area from existing farm track	Increasing hazard crossing existing A30 and A303 due to traffic growth	
xvi) Shells Knapp Farm	Land Loss	Small area of field on west side and adjacent to A30 taken. Access from Shells Knapp onto new road safer via existing access road past Hansons Farm then via roundabout to the trunk road	Increasing hazard crossing existing A30 and A303 due to traffic growth	

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effect	Published Scheme	Do-Minimum	Comments
xvii) Preston Farm	Land Loss	Most of field affected. Access to remaining land from A30 link road.	Increasing hazard crossing existing A303 due to traffic growth	Single field.
xviii) Phillishayne Farm	Land Loss	Small area taken west of existing A303. Access to remaining land from the road to the Farm	No Effect	New road severs a common access track from A303 which provides access into land owned by Newcott Farm, Phillishayes Farm and Preston Palmer Charity Trust
xix) Crinhayes Farm	Severance Land Loss	Small area taken from fields on east side. Access from the new link road. Land required on west side severs the fields - no access provided.	Increasing hazard crossing existing A303 due to traffic growth	Comments also apply to Preston Palmer Charity Trust land tenanted by Crinhayes Farm
xx) Newcott Farm	Severance Land Loss	1100m length of new road severs land on west side of existing A303. Access across Croakham Farm via Stopgate Cross Bridge. Access to retained land between existing A303 and new road from A303. Land required on east side for new link road.	Increasing hazard crossing existing A303 due to traffic growth	See comment above for Phillishayes Farm
xxi) Cliffhayne Farm	Land Loss	Land required on east side of existing A303. Access to remaining land from road to Yarcombe	No Effect	

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effect	Published Scheme	Do-Minimum	Comments
xxii) Knightshayne Farm (Yarcombe Estate)	Severance Land Loss	On west side of existing A303 land taken for link roads. Access to remaining land from the link roads. Additional land required for the new road east of existing A303. Access to remaining land available via existing accesses from A303, C19 and UC53. Land required from isolated fields near Marsh Bypass for landscaping and link road.	Increasing hazard crossing existing A303 due to traffic growth	Incorporates Crokham Farm
xxiii) Higher Pithayne Farm (Yarcombe Estate)	Land Loss	Small area of land taken near Stopgate Cross. Access to adjacent farmland from C19. Land for new road taken from Knightshayne Bottom Wood. Access to remaining land from existing A303 and UC53.	No Effect	

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effect	Published Scheme	Do-Minimum	Comments
xxiv) Birch Oak Farm (Yarcombe Estate)	Severance Land Loss	Land required for new road. Access to severed land from existing A303 and available through Estate.	No Effect	
xxv) Woodhayes Farm	Land Loss	Land on north side of new road to be landscaped. Access to remaining land on south side from UC53	No Effect	Isolated field group
xxvi) Newbarn Farm (Yarcombe Estate)	Land Loss	A small triangular area of land required. Access as existing.	No Effect	
xxvii) Blinemoor Farm	Land Loss	Land required for landscaping and link road.	No Effect	Isolated field group
xxviii) J W Browne (Walsingham House)	Land Loss	Small area required for new road adjacent to existing A35. Access to property to be stopped up and new access provided from Northgate Lane.	No Effect	
xxix) Ridgeway Farm (also at Monkton)	Severance Land Loss	Fields severed by new road. Access to retained land from Northgate Lane and existing A35	No Effect	See also iv)

GROUP 2 : OCCUPIERS (Cont'd)

Sub-Group	Effect	Published Scheme	Do-Minimum	Comments
xxx) Hale Farm	Land Loss	3 small areas required for Bypass and link road. Access as existing.	No Effect	
xxxii) Mrs S J North	Severance Land Loss	The new road severs fields. Access from existing Northcote Hill Road to both portions.	No Effect	
xxxiii) Northcote Hill Farm	Land Loss	Small triangular area of land required for new road. Access to retained land as existing.	No Effect	
xxxiv) Middle Northcote Farm	Severance Land Loss	Fields severed by new road. Access unchanged from Tunnel road and Northcote Hill.	No Effect	
xxxv) Higher Northcote Farm	Land Loss	Land required for new road and landscaping.	No Effect	See also ii)
xxxvi) R Mortimore	Land Loss	Land required for new road and landscaping.		
xxxvii) RWC Mortimore	Severance Land Loss	Two separate plots affected: i) New road and intersection severs fields. Access from Tunnel Lane and Monkton Link Road. ii) Small area taken from corner of field on Hutgate Road.	No Effect	

GROUP 3 : USERS OF FACILITIES

Sub-Group	Effects	Published Scheme	Do-Minimum	Comments
a. General	Freedom of Movement	Access to properties generally improved (A30/A303)	Situation will deteriorate as volume of traffic increases on A30/A303 and A35	
b. Monkton: St Mary Magdelene's Church	Change in Amenity	Reduction in vehicle/pedestrian conflicts, noise, visual intrusion and severance	As Above	
c. Monkton: Monkton Village Hall	Change in Amenity	Reduction in vehicle/pedestrian conflicts, noise, visual intrusion and severance	As Above	
d. Monkton Court Hotel	Change in Amenity	Reduction in vehicle/pedestrian conflicts, noise, visual intrusion and severance	As Above	Access from A30 Improvement via Cheney's Farm Interchange
e. Petrol Filling Stations				
Newcott	Severance	Severe - no access will be permitted to Trunk Road		
Stopgate Cross	Severance	Severe for westbound traffic; Moderate for eastbound and local traffic		
	Disruption during Construction	Slight at Newcott, severe at Stopgate Cross	Slight (during routine maintenance)	Comments relate to severance from direct access to trunk road traffic

GROUP 3 : USERS OF FACILITIES (Cont'd)

Sub-Group	Effect	Units	Published Scheme	Do-Minimum	Comments
g. Honiton High Street	As Above	-	Will have little effect on traffic in High Street	No Effect	
h. Kingslea Hotel (King's Road)	As Above	-	The majority of traffic on King's Road will use the new Bypass	Situation will deteriorate as volume of traffic increases	
j. Otter Valley Park	Noise	dB(A)L10	Increase or decrease in noise levels less than ± 10 dBA	Situation alongside A30 will deteriorate as volume of traffic increases	
	Visual Obstruction	-	Slight 2 dwellings Moderate 5 dwellings	Insignificant	Amenity bund earth mounding and landscaping to be provided.
	Severance	-	Small area of land taken	No Effect	
	Disruption during Construction	-	Some disruption	No Effect	
k. Commercial Honiton & District Showground	Severance	-	Small area of land taken for the new road affecting an entrance to the Showground	No Effect	Existing privileged access arrangements from the trunk road to Cheney's Lane to be reprovided
	Disruption during Construction	-	Disruption to traffic arrangements for 2 consecutive annual Honiton Shows	No Effect	

GROUP 4 : POLICIES FOR CONSERVING AND ENHANCING THE AREA (A30/A303/A35)

Policy	Authority	Interest	Published Scheme	Do-Minimum	Comments
a. To improve the environment of towns and villages	Department of Transport	To relieve towns and villages from through traffic and to reduce noise and pollution	East Honiton, Monkton and Newcott will experience considerable relief from through traffic	These communities will suffer steadily worsening effects from increasing traffic volumes	
b. To preserve and enhance the character of the Blackdown Hills Area AONB	Countryside Commission Devon CC (Structure Plan Policy CDE3) East Devon DC (Rural Areas Local Plan Draft Policy C5)	To minimise the effect of the schemes on the landscape over the whole of the routes	A30/A303: Low embankment through Otter Valley; 9m cutting at Reddicks Hill; 12m cutting at Newcott; 12m cutting at Stopgate Cross; 12m and 8m embankments at Knightshayne Bottom; loss of woodland at Claypits Covert, Knightshayne, Hayne Pit and Wet Wood. A35: 8m embankment at Hutgate Cross. General: effect on existing hedgerows and field patterns	No Change	Extensive mitigation proposals through shaping of earthworks and planting. Planting using indigenous species will be carried out along the roadside and off-site. Lost woodland will be compensated by this planting and existing hedgerows knitted together. Planting will also provide both screening and habitat creation. Special measures will be adopted where necessary (eg: re-use of soil containing 'seed bank', etc).

GROUP 4 : POLICIES FOR CONSERVING AND ENHANCING THE AREA (A30/A303/A35) (Cont'd)

Policy	Authority	Interest	Published Scheme	Do-Minimum	Comments
c. To protect Listed Buildings	Department of Transport	St Mary Magdelene Church and houses at Monkton	Reduced dust and noise nuisance for church. Some improvement for houses	Increased noise, visual intrusion and dust	Planting screen will be provided
		Crinhayes Farm	Increased noise and visual intrusion until mitigated by planting	As Above	As Above
	Devon County Council (Structure Plan Policy CDE6)	Birch Mills and The Old Thatch	New road 130m away, 30m less than existing. Hence slightly increased noise and intrusion	Noise levels will increase	Intrusion mitigated by planting
		Bishops Tower	No Effect	No Effect	
	East Devon DC (Rural Areas Local Plan Draft Policies (C6 and C8)	Copper Castle	New trunk road 1½km away. Existing is 6m away.	Increasing traffic might physically affect structure as well as causing higher noise levels	
		Marwood House	Would remove trunk road traffic from in front of building	As Above	

GROUP 4 : POLICIES FOR CONSERVING AND ENHANCING THE AREA (A30/A303/A35) (Cont'd)

Policy	Authority	Interest	Published Scheme	Do Minimum	Comments
d. To protect and enhance wildlife habitats and encourage the planting of broad leaved trees	Department of Transport	To safeguard habitats at Knightshayne Bottom wood complex, Sandpit Hill, Claypits Covert, Wet Wood, Hayne Pit	Some loss of habitat in the locations, but especially at Claypits Covert	No Effect	Some mitigation by planting to replace lost habitats and to establish a range of new habitats; re-use of existing topsoil to preserve 'seed bank'
	English Nature	To safeguard dormouse colonies	One dormouse habitat affected	No Effect	Efforts will be made to trap and translocate colonies, though success is uncertain
	Devon Wildlife Trust	To safeguard roe deer	Abundant population is becoming a traffic hazard	As for Preferred Route	Deterrent devices will be installed at crossing points
	Devon CC (Structure Plan Policies CDE 9 and 12) East Devon DC (Rural Plan Draft Policy C12)	To safeguard badger groups	Three badger groups affected - setts destroyed and territories bisected	No setts destroyed, but territories bisected	Crossing points and fences will be provided

GROUP 4 : POLICIES FOR CONSERVING AND ENHANCING THE AREA (A30/A303/A35) (Cont'd)

Policy	Authority	Interest	Published Scheme	Do-Minimum	Comments
a. To protect sites of historic interest	Department of Environment English Heritage Devon CC (Structure Plan Policy CDE14) East Devon DC (Rural Areas Local Plan Draft Policy C13)	To safeguard and to permit inspection and recording of existing and new sites of archaeological interest	There are at least 24 archaeological sites in the vicinity of the routes, of which two are of special interest	No known effect	Necessary works will be carried out prior to construction in liaison with English Heritage. Watching brief and salvage operations will be carried out during construction.
b. To protect trees worthy of preservation	East Devon DC (Rural Areas Local Plan Draft Policy C11)	To safeguard trees where possible protected by TPOs at Northcote Hill Road, Honiton Hill Road and Old Chard Road	The route is in the vicinity of the trees subject to TPO	No Effect	Further monitoring will take place during construction
c. To protect water resources and their quality	National Rivers Authority	To prevent pollution of existing watercourses and to ensure no increase in the likelihood of flooding	Increased rate of runoff to existing watercourses	No Change	Temporary stilling basins provided to remove material arising from construction process. Interceptors provided to remove pollutants, especially hydrocarbons. Treatment of watercourses to avoid increase in risk of flooding, reduce erosion and reduce energy

GROUP 5 : TRANSPORT DEVELOPMENT AND ECONOMIC POLICIES

Policy	Authority	Interest	Published Scheme	Do-Minimum	Comments
a. To improve part of the A30/A303 & A35 trunk road network to the West Country	Department of Transport	To assist economic growth by reducing transport costs through improving accessibility for industrial, commercial and tourist traffic to and from the South West	Significant improvement	Situation will deteriorate further as traffic volumes increase	White Paper 1989 'Roads for Prosperity' refers
b. To reduce accidents	Department of Transport	Removal of through traffic including HGVs from Monkton in particular and Kings Road	Significant improvement (Monkton bypassed) (Kings Road severed)	As Above	
		Removal of tight curvature, improvement in visibility. Removal of direct access. Provision of safer overtaking facilities.	Significant improvement	As Above	Narrow carriageway width, sharp bends and absence of a footway at Monkton give rise to accidents on A30
		Improvement of Offwell Junction (A35)	As Above	As Above	Improves and simplifies the poor existing junction on A35

GROUP 5 : TRANSPORT DEVELOPMENT AND ECONOMIC POLICIES (Cont'd)

Policy	Authority	Interest	Published Scheme	Do-Minimum	Comments
Development and Economic Policies a. To develop Honiton as an Area Centre	Devon County Council	Access to and from Honiton	Significant improvement of accessibility to and from the East (A30/A303). Moderate improvement on A35	Accessibility will deteriorate as traffic volumes increase	
b. To provide employment land within or on the peripheries of Area Centres	Devon County Council and East Devon District Council	Access to land east of Honiton	Improvement scheme will enhance employment land by providing good access to a major West Country route (A30/A303). Will improve access generally (A35)	Accessibility will deteriorate as traffic volumes increase	
To reduce maintenance costs	Department of Transport and Devon County Council	Recurrent expenditure on Reddick's Hill	Significant reduction in traffic on Reddick's Hill will reduce related costs	Road maintenance scheme will reduce costs arising from hillside instability	
d. To assist the viability of rural bus services	Devon County Council	Effect on Service reliability	Improvement	Increased traffic volumes will result in deterioration of Service reliability	

GROUP 6 : FINANCIAL EFFECTS

Sub-Group	Effect	Units	Published Scheme	Do-Minimum	Comments
Department of Transport	Construction Costs *	£ (PVC)	24.182	2.394	Costs & Benefits are discounted from years of expected expenditure to 1988 at 1988 prices (PVC = present value of costs. PVB = present value of benefits. NPV = net present value). Excess maintenance cost due to additional length of road or improved lighting, signing, etc.
	Land Costs	£ (PVC)	2.013	-	
	Compensation Costs	£ (PVC)	0.117	-	
	Maintenance Costs	£ (PVC)	0.387	-	
	Total Cost	£ (PVC)	26.699	2.394	
Total quantified monetary benefits compared to 'Do Minimum'			High Growth 49.738	Low Growth 29.552	Includes savings in time, vehicle operating costs and accidents. Taken from Group 1.
Net present value compared to 'Do Minimum'		£ (NPV)	25.433	5.246	0

* Construction costs include preparation and supervision costs

FIGURES

1	Regional Context	1:625,000
2a-d	Public Consultation and Other Routes Considered	1:10,560
3a-d	Scheme Proposals	1:10,560
4	Forecast Traffic Flows	1:50,000
5a-d	Landscape Proposals	1:10,560
6a-d	Environment and Conservation	1:10,560

ENVIRONMENTAL STATEMENT

KEY:



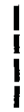
Road in cutting
Maximum depth of cutting



Road at ground level



Road on embankment
Maximum height of embankment



Footpaths



Proposed drainage outfalls

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THE DEPARTMENT OF TRANSPORT

A30/A303 MARCH TO HONITON
IMPROVEMENT AND
A35 HONITON EASTERN BYPASS

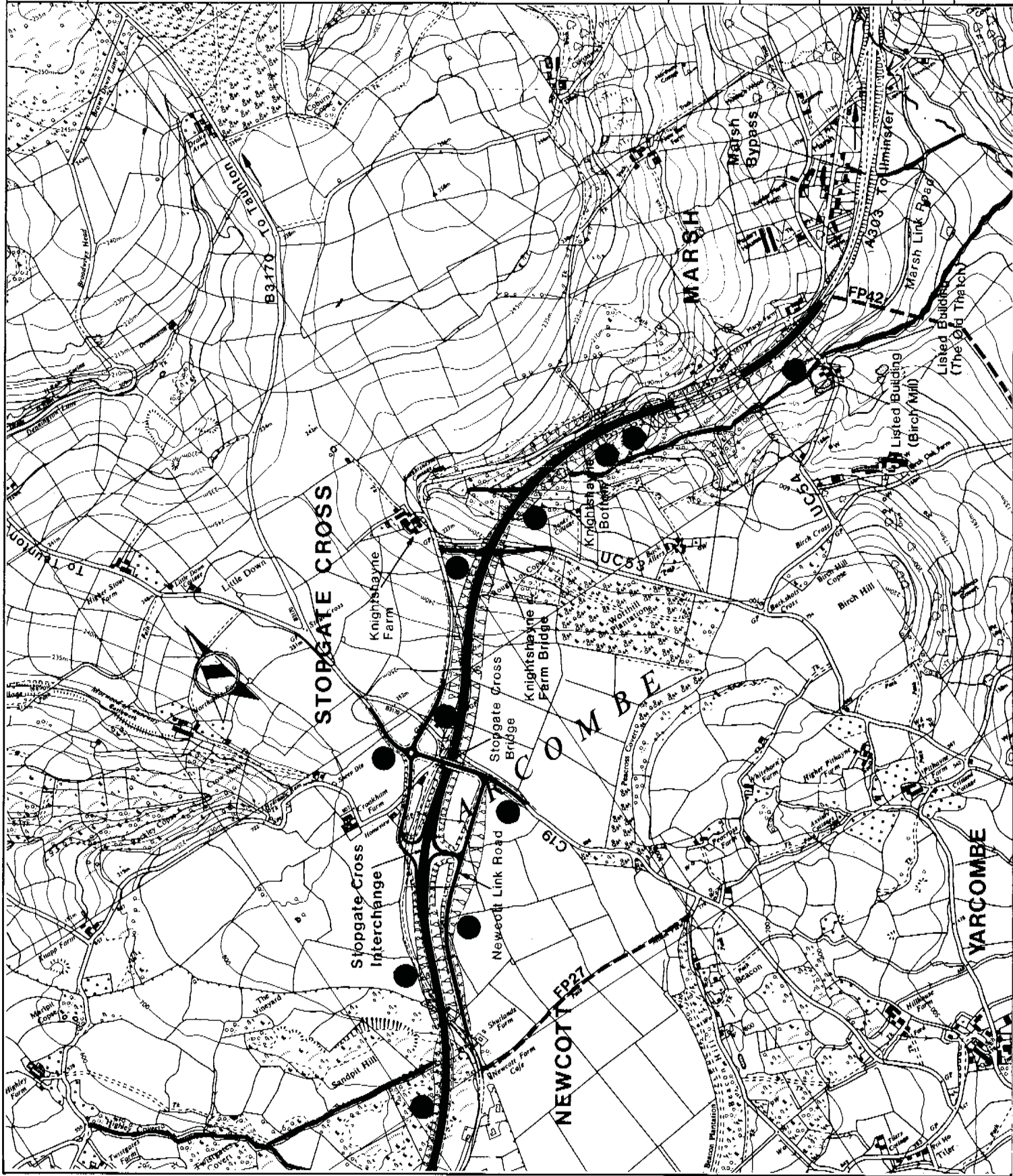
SCHEME PROPOSALS

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Date: July 1993 3d



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ENVIRONMENTAL STATEMENT

Key:

Without Scheme	With Scheme	1990	2012 High Growth	2012 Low Growth
6,950	-	150	150	100
21,250	150	100	-	-
17,800	100	-	-	-

neg - negligible flow

Flows are annual average daily traffic

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THE DEPARTMENT OF TRANSPORT

A30/A303 MARSH TO HONITON IMPROVEMENT AND A35 HONITON EASTERN BYPASS

EXISTING AND FORECAST TRAFFIC FLOWS

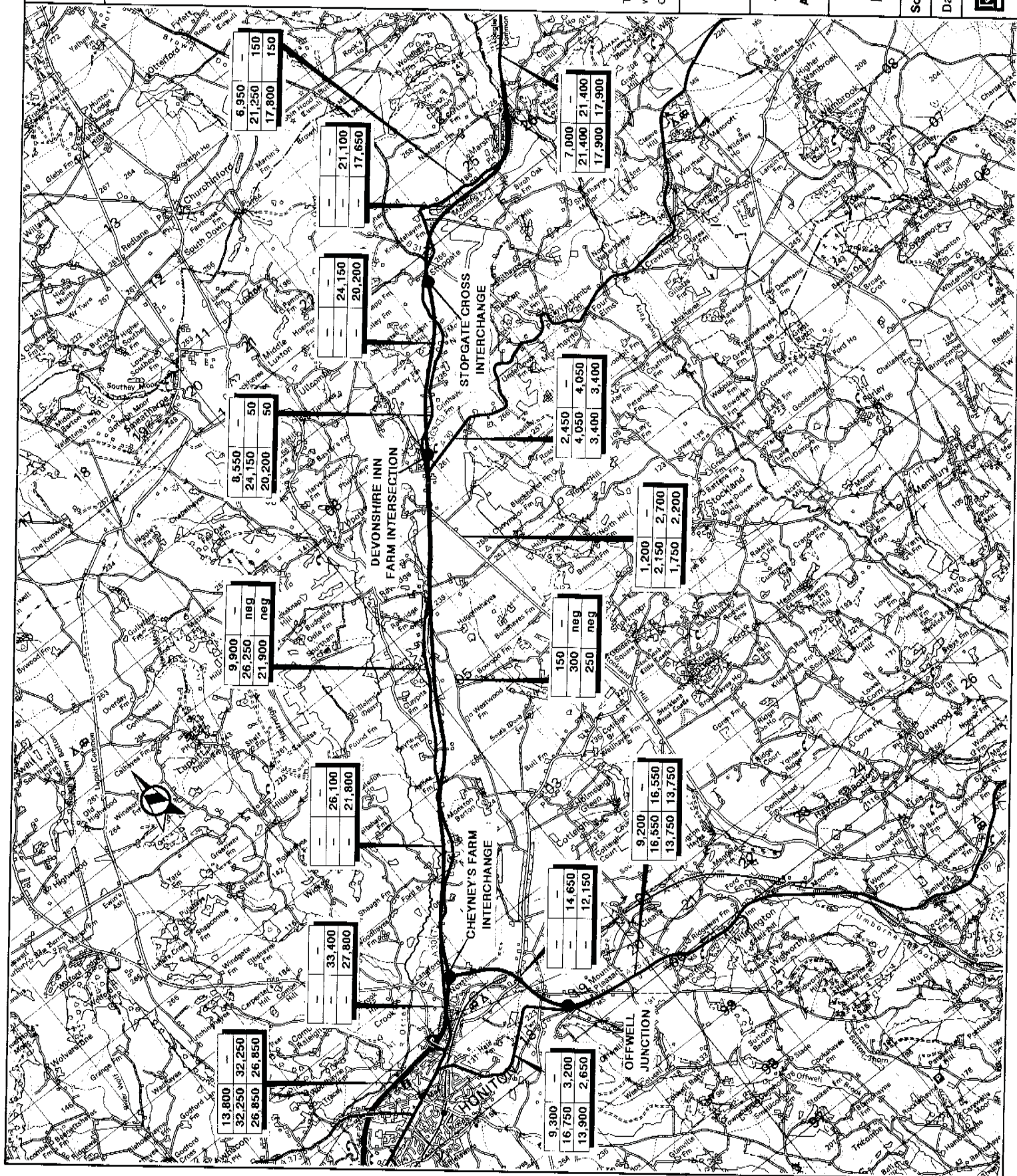
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Figure No.

Date: July 1993

4

Rendel Rendel Palmer & Tritton
Development & Engineering Consultants



ENVIRONMENTAL STATEMENT

KEY:



Proposed area of shrub and tree planting



Proposed area of land shaping

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THE DEPARTMENT OF TRANSPORT

A30/A303 MARCH TO HONITON IMPROVEMENT AND A35 HONITON EASTERN BYPASS

LANDSCAPE PROPOSALS

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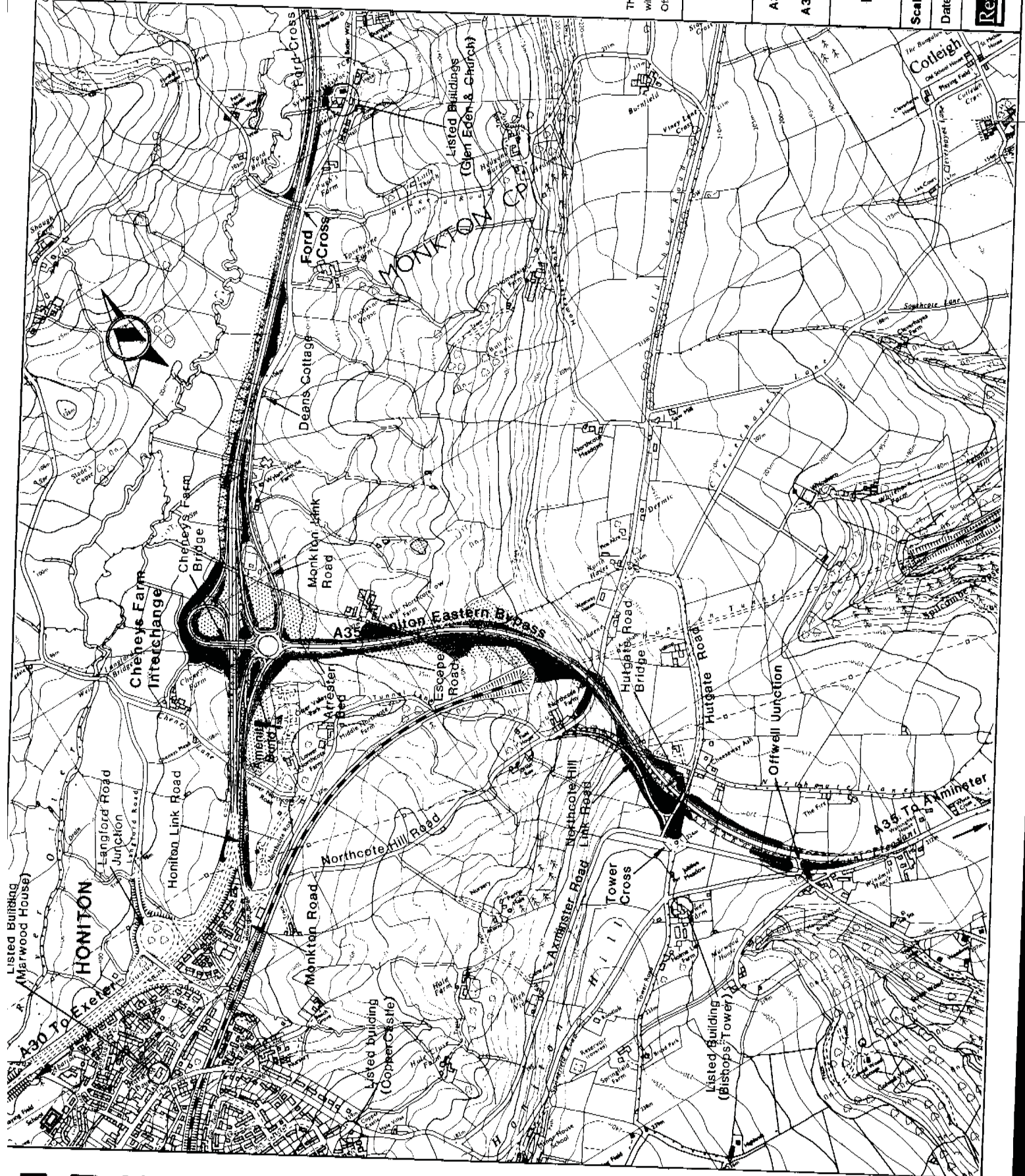
Figure No.

Date: July 1993

5a



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Development & Engineering Consultants



ENVIRONMENTAL STATEMENT

KEY:

Proposed area of shrub and tree planting



Proposed area of land shaping



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A30/A303 MARCH TO HONITON IMPROVEMENT AND A35 HONITON EASTERN BYPASS

LANDSCAPE PROPOSALS

Scale: 1:10560

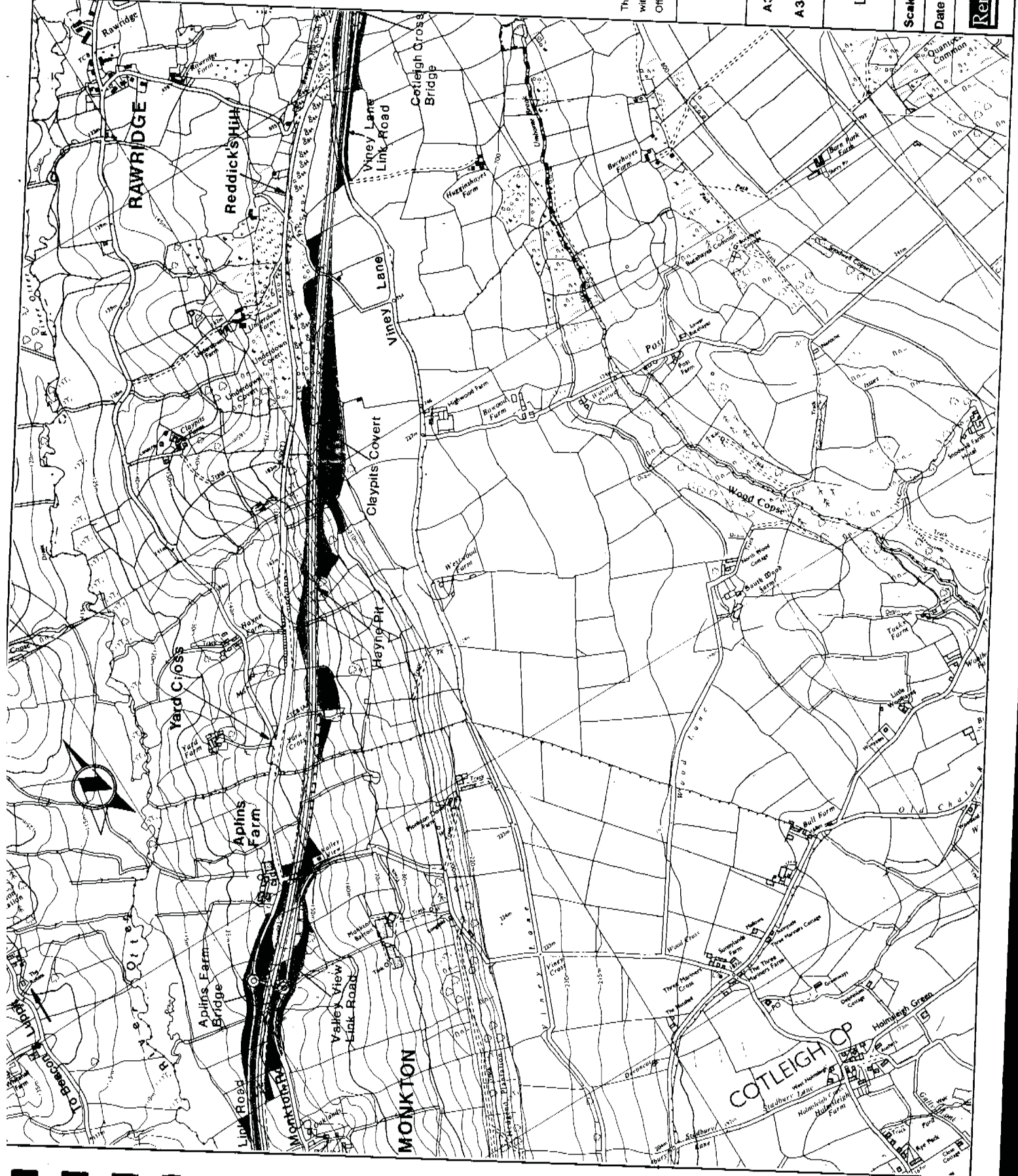
Figure No.

Date: July 1993

5b



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Development & Engineering Consultants



ENVIRONMENTAL STATEMENT

KEY:

Proposed area of shrub and tree planting



Proposed area of land shaping



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THE DEPARTMENT OF TRANSPORT

A30/A303 MARSH TO HONITON IMPROVEMENT AND A35 HONITON EASTERN BYPASS

LANDSCAPE PROPOSALS

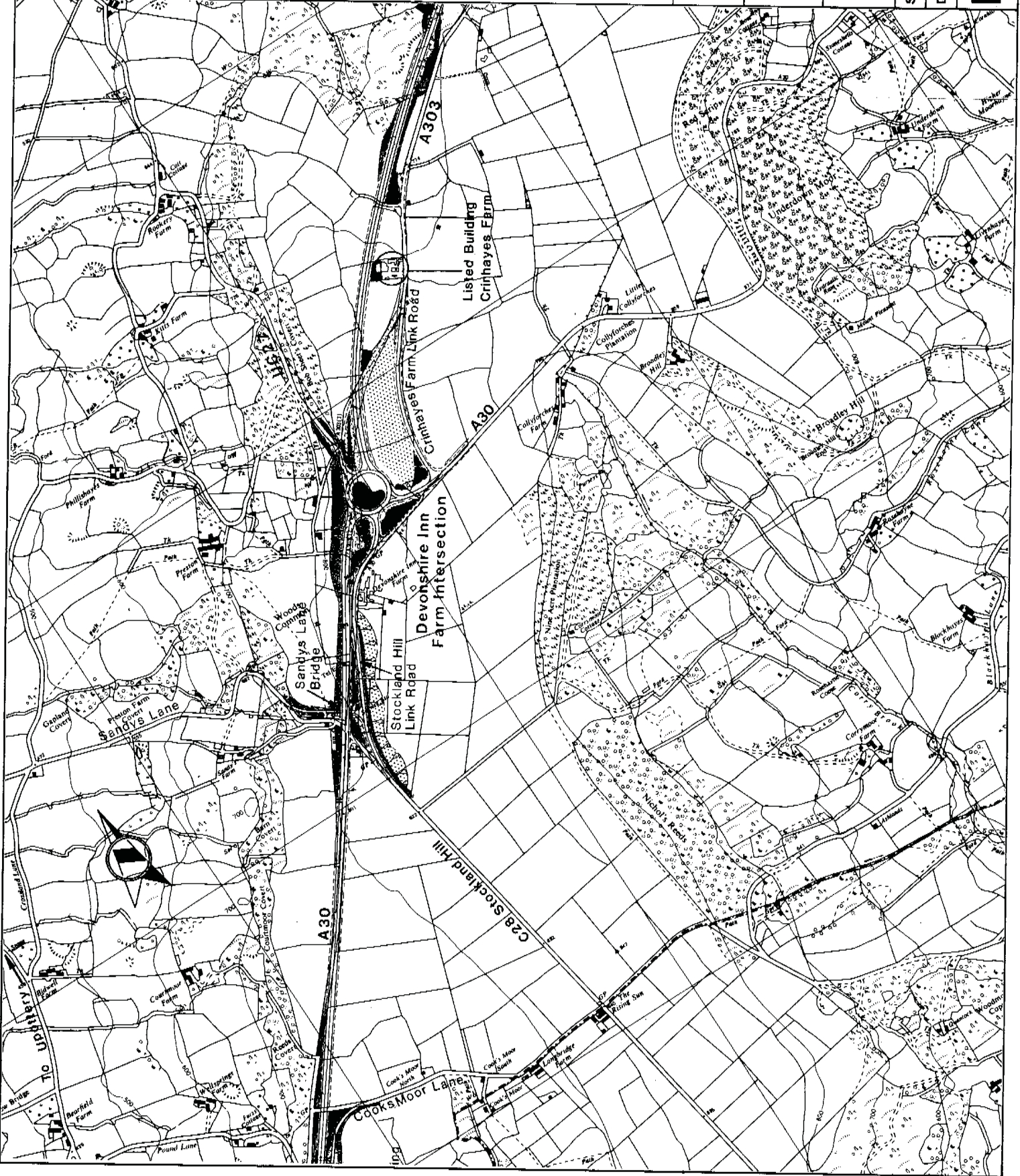
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Date: July 1993

5C



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ENVIRONMENTAL STATEMENT

KEY:

Proposed area of shrub and tree planting

Proposed area of land shaping

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THE DEPARTMENT OF TRANSPORT

A30/A303 MARSH TO HONITON IMPROVEMENT AND A35 HONITON EASTERN BYPASS

LANDSCAPE PROPOSALS

Scale: 1:10560

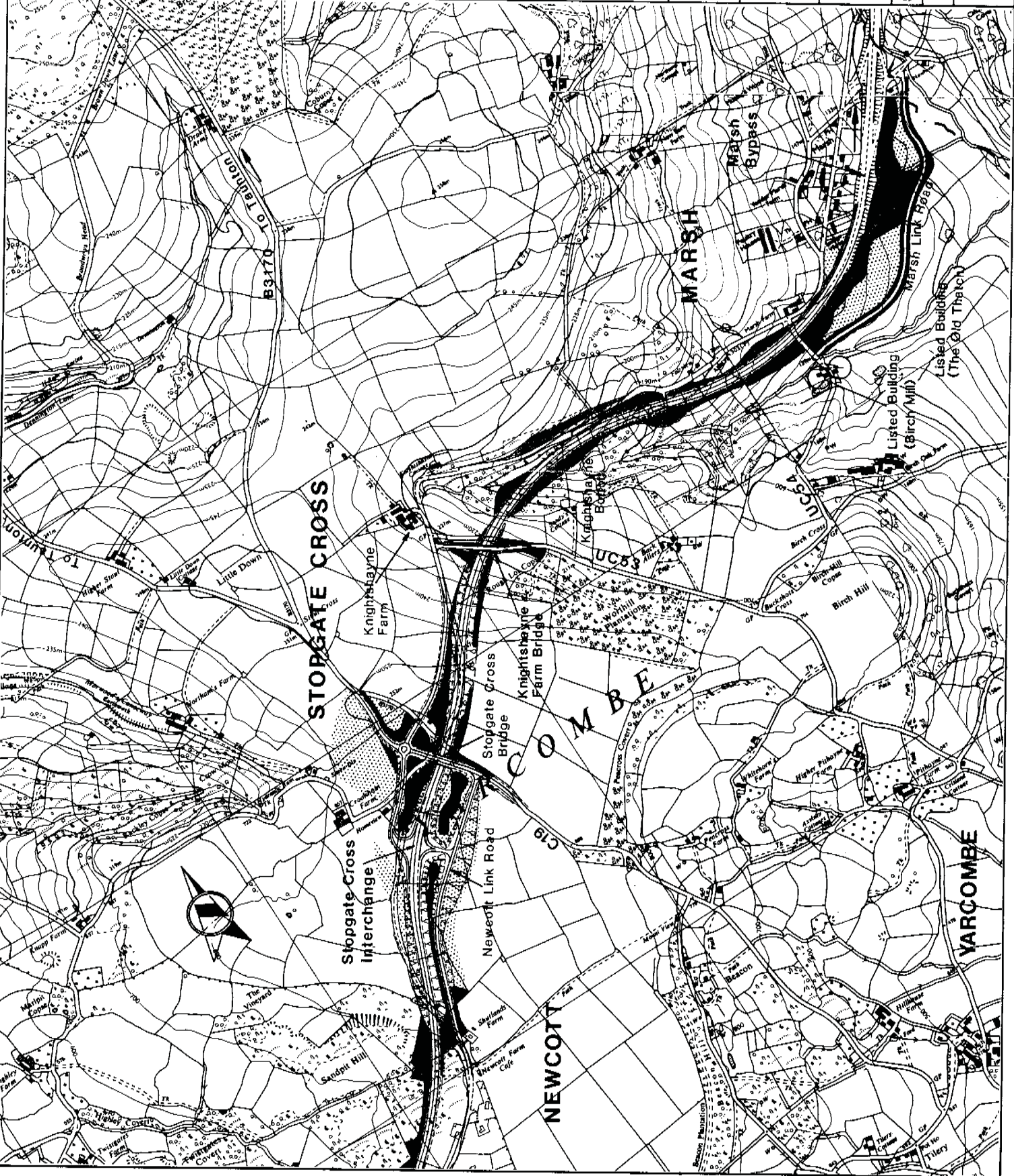
Figure No.

Date: July 1993

5d



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Development & Engineering Consultants



ENVIRONMENTAL STATEMENT

KEY:

Sites of general ecological interest constituting a significant wildlife resource

Sites of special conservation value

Listed Buildings

Public Footpaths

Boundaries of Areas of Outstanding Natural Beauty.

Blackdown Hills

East Devon

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A30/A303 MARCH TO HONITON IMPROVEMENT AND A35 HONITON EASTERN BYPASS

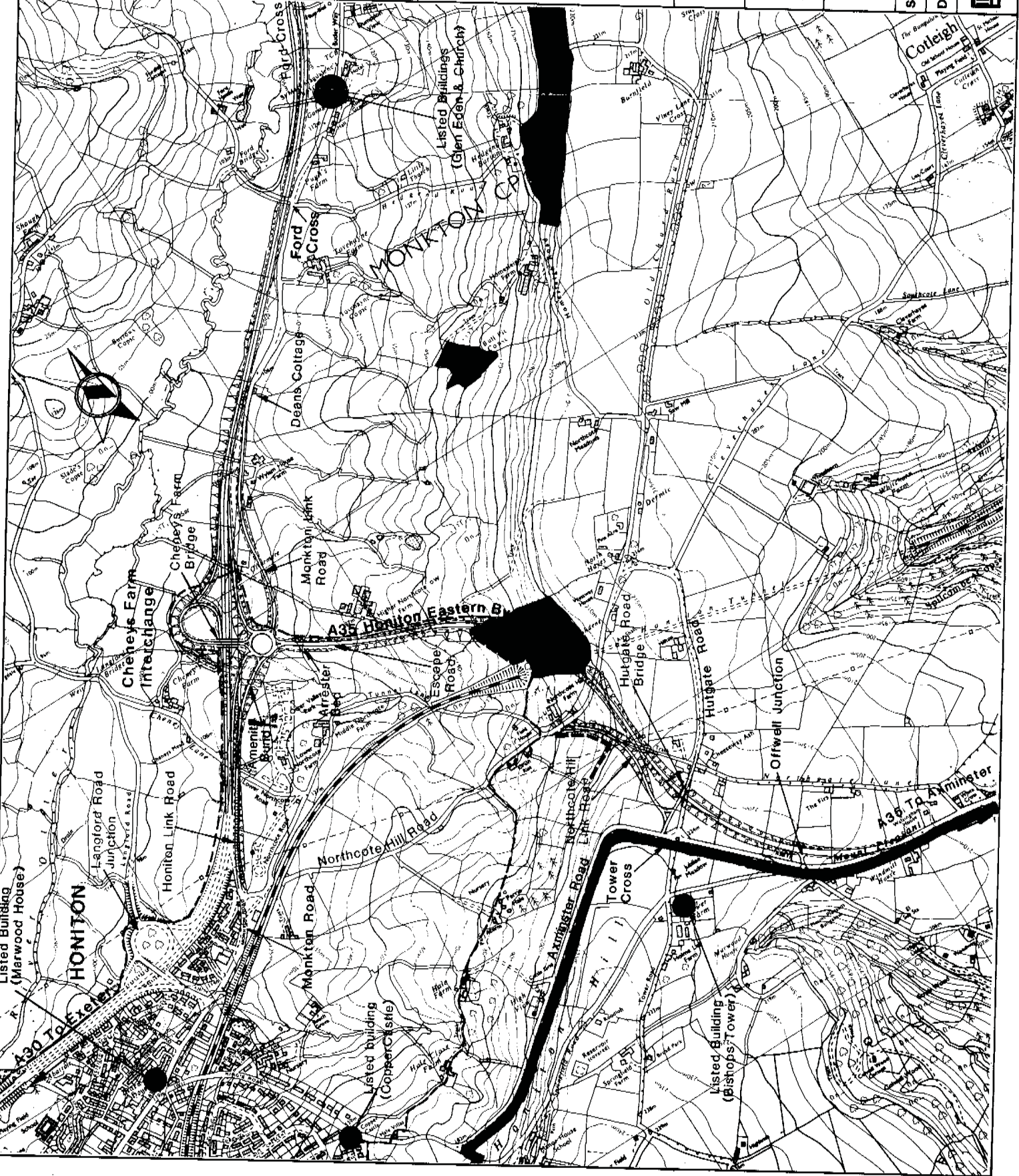
ENVIRONMENT AND CONSERVATION

Scale: 1:10560 Figure No.

Date: July 1993 **6a**



Rendel Palmer & Tritton
Development & Engineering Consultants



ENVIRONMENTAL STATEMENT

KEY:

Sites of general ecological interest constituting a significant wildlife resource



Sites of special conservation value



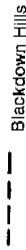
Listed Buildings



Public Footpaths



Boundaries of Areas of Outstanding Natural Beauty:



Blackdown Hills

East Devon



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THE DEPARTMENT OF TRANSPORT

A30/A303 MARCH TO HONITON IMPROVEMENT AND A35 HONITON EASTERN BYPASS

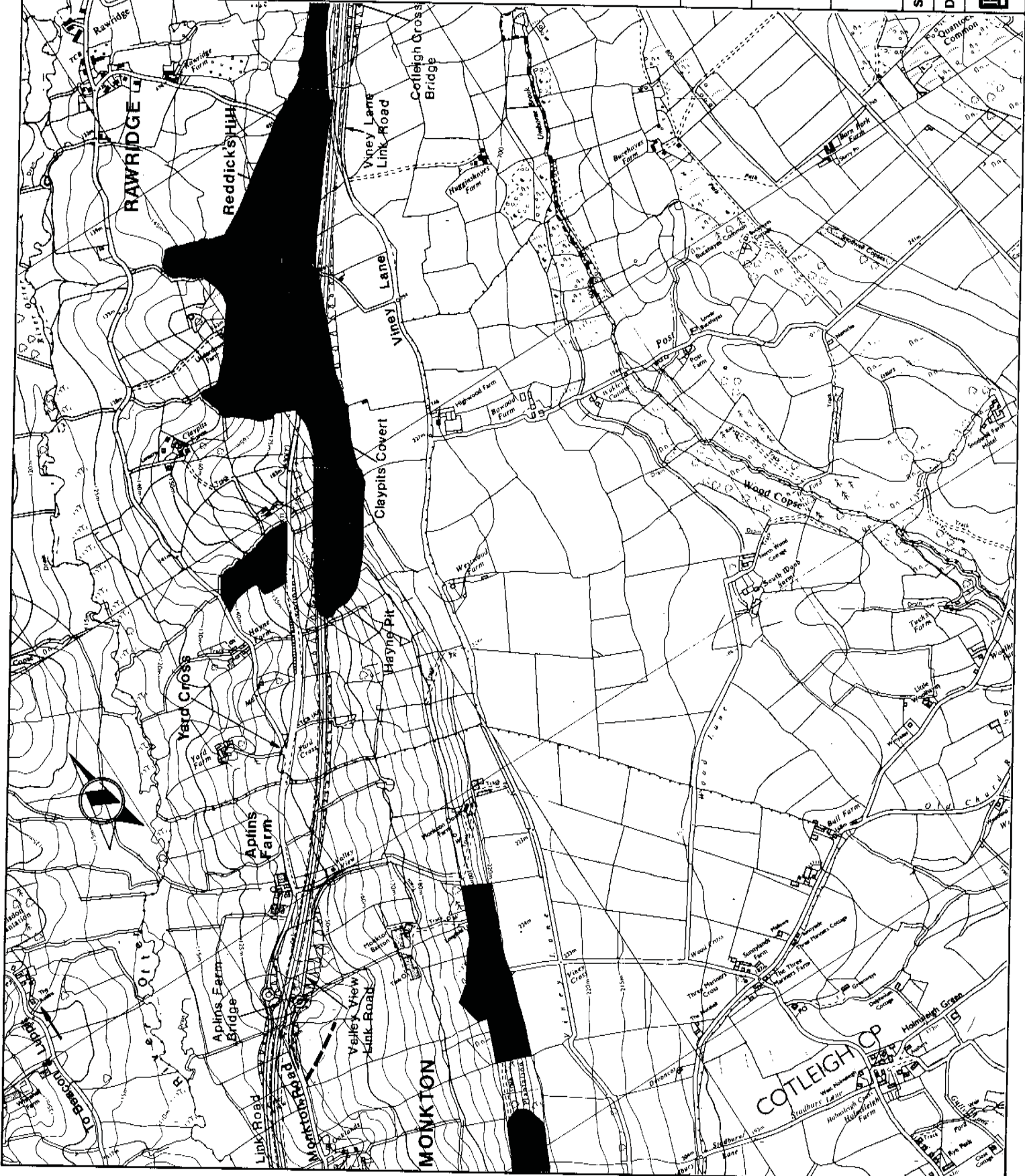
ENVIRONMENT AND CONSERVATION

Scale: 1:10560 Figure No.

Date: July 1993 6b



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ENVIRONMENTAL STATEMENT

KEY:

Sites of general ecological interest constituting a significant wildlife resource



Sites of special conservation value



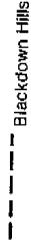
Listed Buildings



Public Footpaths



Boundaries of Areas of Outstanding Natural Beauty:



Blackdown Hills



East Devon

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A30/A303 MARSH TO HONITON IMPROVEMENT AND A35 HONITON EASTERN BYPASS

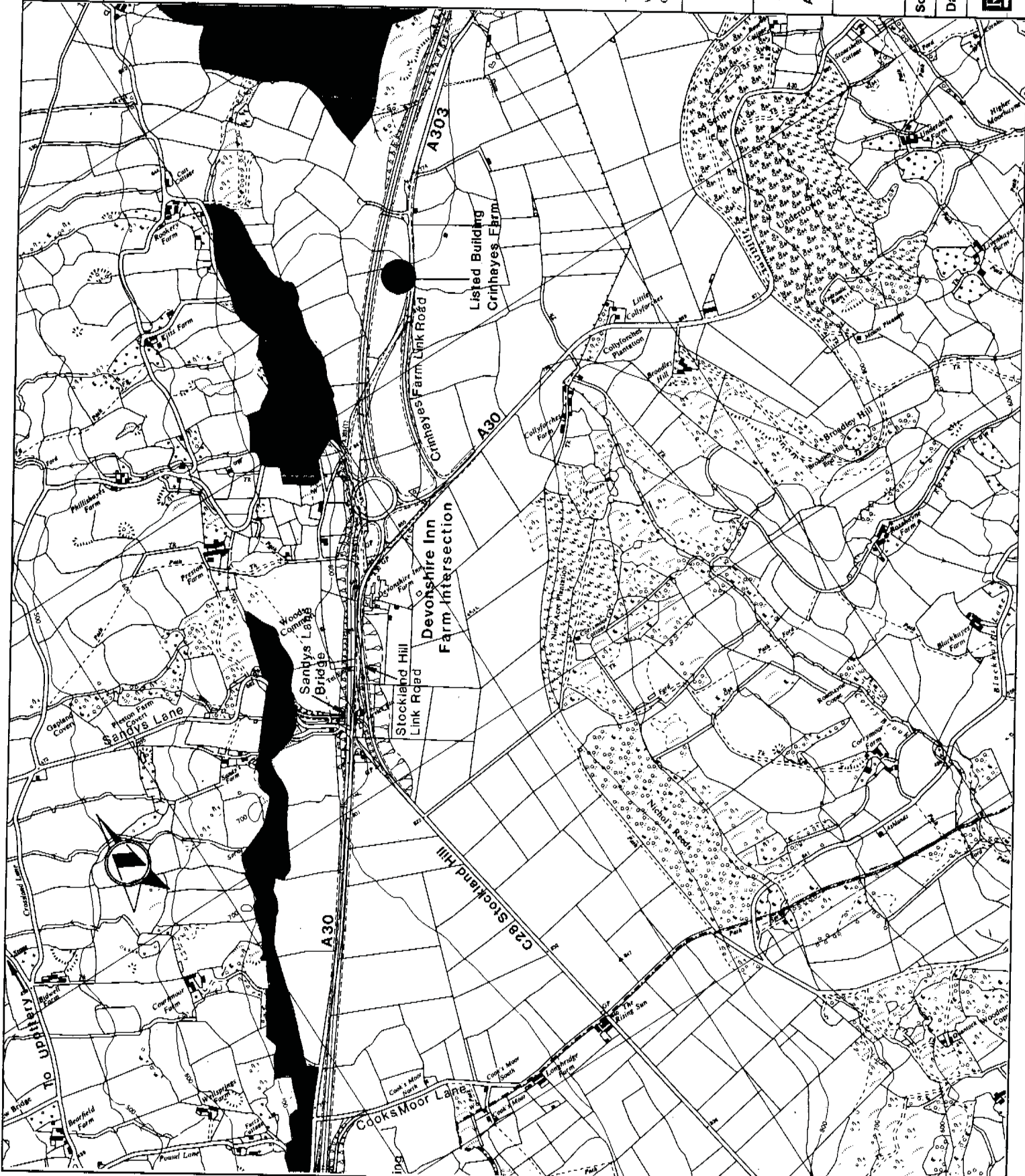
ENVIRONMENT AND CONSERVATION

Scale: 1:10560 Figure No.

Date: July 1993 6C



Rendel Palmer & Tritton
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A30/A303 MARSH TO HONITON IMPROVEMENT AND A35 HONITON EASTERN BYPASS

ENVIRONMENT AND CONSERVATION

Scale: 1: 10 560

Figure No.

Date: July 1993

6d



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