



A35 TOLPUDDLE TO PUDDLETOWN BYPASS

ENVIRONMENTAL STATEMENT

May 1991



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ENVIRONMENT & LANDSCAPE
Environmental Statement

A35 TOLPUDDLE TO PUDDLETOWN BYPASS



HA 44/27/753# 1



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**A35 TOLPUDDLE TO
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ENVIRONMENTAL STATEMENT**

MAY 1991



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A35 TOLPUDDLE - PUDDLETOWN BYPASS

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1.0 INTRODUCTION

- 1.1 The A31/A35 Trunk Road is part of the Folkestone to Honiton Trunk Route which is the main east-west route along the south coast.
- 1.2 The National Roads Programme includes a number of improvement schemes on this road of which a Tolpuddle - Puddletown Bypass is an essential component. The main objectives of the scheme are to assist economic growth, to enhance road safety and to improve the environment by the removal of through traffic from the villages of Tolpuddle, Puddletown and nearby settlements.
- 1.3 The Secretary of State for Transport has published proposals for this scheme and this Environmental Statement is published summarizing an 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.

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2.0 SITE DESCRIPTION

2.1 SETTLEMENTS

- 2.1.1 The population within the area immediately affected by the scheme is largely concentrated in the two villages of Puddletown and Tolpuddle, which are located approximately 7 km and 10.5 km east of the County Town, Dorchester (see Figure 1).
- 2.1.2 Puddletown, the larger of the two villages, lies in the valley of the River Piddle and is divided by the A35 Trunk Road running east-west through the settlement. From the north the A354 County Road joins the A35 in Puddletown and creates further severance of the village. The village has schools which cater for primary and middle age groups, a selection of shops, a post office, two public houses and garages. Other community facilities include a church, village hall, library and sports ground.
- 2.1.3 The village of Tolpuddle situated to the east of Puddletown and further down the River Piddle valley, is a ribbon development straddling the A35 with many of its properties fronting directly onto the road. The oldest part of the village is at its western end with more recent residential infill development at the eastern end. Community facilities include a church, chapel and village hall, there is also a combined garage/general stores and public house.
- 2.1.4 Between Puddletown and Tolpuddle are the hamlets of Athelhampton and Burleston where virtually all the properties lie adjacent to the A35 with access directly onto the road. There are no community facilities in these hamlets.
- 2.1.5 To the south-east of Tolpuddle and not directly affected by the scheme lie the small villages of Affpuddle and Briantspuddle which are linked to the A35 by the B3390.

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2.2 ROAD NETWORK

2.2.1 The existing road network is shown in Figures 4a and 4b.

2.2.2 The A35 Trunk Road provides the main arterial route running through the area as well as providing links between local communities.

2.2.3 From Two Doves, west of Puddletown to the Bere Regis Bypass the A35 is a single two lane carriageway of variable standard and over this 9km length offers few safe overtaking opportunities.

2.2.4 Through Puddletown the A35 is subject to a 30 mph speed limit and the road is generally of standard width with footpath provision on both sides. In places the alignment is sub-standard and there is restricted visibility which coincides, in some cases, with minor side road junctions. At the western end of the village the A354, a Principal County Road, joins the A35 from the north at a traffic signal controlled junction and this causes considerable delays, especially at peak periods. The A35/A354 route provides a popular commuter link to Dorchester from settlements between Puddletown, Blandford Forum and beyond. Both the A35 and A354 in Puddletown have street lighting.

2.2.5 Between Puddletown and Tolpuddle the A35 is not subject to a speed limit. Its general alignment is sub-standard with road widths in places of less than 6 m and visibility restricted by narrow verges backed by high hedges. A number of private accesses, including Athelhampton Hall an historic house which is open to the public, front directly onto this de-restricted length of trunk road and this, combined with the above factors, contribute to the poor accident record for this section of road.

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- 2.2.6 From just west of Tolpuddle and through the centre of the village, the A35 is subject to a 30 mph speed limit which is then relaxed to 40 mph over the eastern part of the village. Sub-standard alignments, narrow road widths, restricted visibility and a number of minor road junctions are features of the A35 through Tolpuddle. This section of the road also has street lighting.
- 2.2.7 From Tolpuddle to the Bere Regis Bypass the standard of this de-restricted length of A35 is generally good. East of Tolpuddle Ball the B3390 joins the A35 from the south at a 'T' junction. In close proximity there is a crossroads formed between the A35 and the two minor roads leading to Milborne St Andrew and Briantspuddle. There are a number of farm and field accesses directly onto the trunk road over this length.
- 2.3 LAND USE
- 2.3.1 The area is of rural character with land predominantly devoted to agriculture, a high proportion of which is owner occupied. The farms are generally well structured in terms of size and shape and equipped with a good range of buildings and machinery.
- 2.3.2 The land is free draining, apart from the two low lying areas of watermeadow, and fields are generally medium to large in size bounded by hedgerows.
- 2.3.3 The grassland is utilized mainly for dairy cows although a number of farms also have small beef and sheep units. The arable land is virtually all down to cereals reflecting the relatively high quality of the soil.

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2.3.4 The watermeadows are a particularly interesting example of land use management dating back to medieval times which involves artificially regulating the flooding of the meadows by means of weirs, sluices and channels. This is normally carried out during the winter months to encourage grass growth and provide early pastureland for sheep. This method of flooding has not been used in the watermeadows to the north-west of Puddletown for a number of years and parts of the meadows have been re-seeded to provide semi-improved pastureland, however the Devil's Brook watermeadows are still managed in the traditional way.

2.3.5 There are also small areas of woodland which have been significantly modified. Many consist of planted conifers for soft wood timber production and most are managed for game.

2.3.6 Most of the land has some shooting interest and Bardolf Manor, in particular, has excellent shooting facilities.

2.4 LANDSCAPE

2.4.1 The area comprises an open valley occupied by the River Piddle and its associated watermeadow. To the north of this valley is an open rolling landscape forming a plateau which is bisected by a number of north-south valleys. The most pronounced of these valleys is occupied by Devil's Brook and its watermeadows which joins the main Piddle Valley just east of Burleston.

2.4.2 Views across the plateau are extensive and interrupted by linear copses which are generally orientated in a north-south direction. Smaller tree clumps are associated with disused chalk-pits. There are also several shelter-belts and plantations north of Puddletown. Three areas of woodland have Tree Preservation Orders, one is to the north of Tolpuddle and the other two, at Tolpuddle Ball and Roger's Hill Farm, are located at the eastern end of the scheme.

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- 2.4.3 To the south of the Piddle valley is a ridge running west to east, which separates the Piddle from the Frome Valley to the south. Much of this ridge is covered with mixed woodland or coniferous plantation. The most notable are Puddletown Forest in the west of the study area, Ilsington Wood south of Puddletown, and Affpuddle Heath to the east.
- 2.4.4 Between the wooded ridge and the River Piddle the landscape comprises a series of enclosed valleys to the south of Puddletown, whilst to the east the landscape is more open and punctuated by copses. South of Tolpuddle Ball the landscape becomes more open and there are extensive views from Affpuddle northwards.
- 2.4.5 Within the area (see Figure 5) there are two areas designated by Dorset County Council in the 1957 County Development Plan as being Areas of Great Landscape Value (AGLV). The first of these is located to the south of Puddletown, the second extends from Burlleston to the east of Tolpuddle Ball. Although the County Development Plan is largely superseded, this designation is still applicable until the West Dorset District Eastern Area Local Plan, at present a consultative document, is adopted. In the consultative document the area is not given any special status for landscape quality.
- 2.5 ECOLOGY
- 2.5.1 There are no designated Sites of Special Scientific Interest (SSSI) or potential SSSI affected by the published route.
- 2.5.2 A detailed study was undertaken along the corridor of the published route to identify sites of terrestrial ecological value and to assess the aquatic ecology of the River Piddle and Devil's Brook. The findings of this study are contained in a report titled 'Ecological Baseline and Impact Assessment of Published Route' which is available for reference purposes and is on deposit at Council Office inspection points listed in Appendix A.

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- 2.5.3 There is a natural contrast between the well drained, fertile valley slopes on the higher ground, which under natural conditions would be wooded and the wetter low lying areas associated with the valley floor which would normally support willow and alder carr.
- 2.5.4 Most of the well drained land above the valley floor is improved agricultural land. The area is generally cleared of woodland and many fields have been ploughed for arable crops. Over the years enlargement of fields, application of artificial fertilizers and re-seeding of pastures have taken place with the result that it is generally of low value for wildlife.
- 2.5.5 The low lying areas associated with the River Piddle appear to have been developed as watermeadows in the seventeenth century. Typically they are largely poor in species but localised areas of wet grassland support an abundance of species. English Nature regard this area to be of high conservation value and it is considered to be of significant local importance. In the other low lying area around the Devil's Brook valley there are two distinctive forms of habitat, one is woodland composed of willow carr which is considered to be the most natural of the woodlands along the published route and the other is the watermeadows. Improved for agriculture, these watermeadows do not retain much botanical interest. However, the relatively mild climate, rich feeding facilities and traditional flooding of the meadows attract moderately large numbers of wildfowl, particularly in winter. The area may have some regional significance as a refuge for wildfowl but in general it is regarded as being more of local significant importance.

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- 2.5.6 The River Piddle and the Devil's Brook with its associated flood channel were studied upstream and downstream of the published route. The section of the River Piddle within this area is generally fast flowing with bed sediment varying from large stones to mud. The submerged aquatic vegetation is abundant but not diverse and the water quality high. A fisheries study indicated that the river is highly productive in terms of fish biomass and is an excellent trout stream. However, the section to be crossed by the road generally has little suitable habitat for trout and there is evidence of local diminution of water quality due to discharge from a nearby sewage works.

The Devil's Brook is a slow flowing brook within which there are isolated areas of faster flow. Bed deposits of thick mud are due to impedance of flow and organic inputs from surrounding vegetation. There is no submerged aquatic vegetation due to the woodland canopy and the water quality, especially in the summer, falls due to the reduction in flow and de-oxygenation caused by the breakdown of the organic matter. A fisheries study was not undertaken on the brook due to fallen trees and wooded banks.

The flood channel is a fast flowing water course lying to the east and running parallel with the Devil's Brook. It has a bed of varying stone sizes and grits with abundant submerged aquatic vegetation. The water quality is very high and the fisheries study indicated a good abundance of trout and eels.

2.6 HERITAGE

- 2.6.1 The oldest part of Puddletown and virtually all of Tolpuddle lie within two designated conservation areas reflecting the special historic and architectural interest attached to these villages. The area of the River Piddle valley lying to the south-east of Tolpuddle, including the smaller villages of Affpuddle and Briantspuddle, is also designated a conservation area.

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- 2.6.2 That part of Puddletown lying within the conservation area contains thirty nine listed buildings of which one is Grade I, three are Grade II* and thirty five are Grade II. The oldest of these is The Church of Saint Mary, a Grade I listed building, which has its origins in the 12th Century. The majority of listed buildings date from the 18th and 19th Centuries with the remainder dating from the 16th and 17th Centuries.

The conservation area around Tolpuddle contains twenty three listed buildings of which two are Grade I, three are Grade II* and eighteen are Grade II. The oldest of these is The Church of Saint John, a Grade I listed building originating in the 12th Century which also contains a monument to James Hammett, the only Tolpuddle Martyr to return to the village. The other Grade I listed building is the Martyrs' Cottage dating to the 18th Century and once the home of Thomas Standfield, one of the six martyrs. Most of the other buildings date between the 17th and 18th Century.

At Athelhampton and Burleston, as well as in parts of Puddletown and Tolpuddle outside the conservation areas, there are a further twelve listed buildings which are shown on Figure 5. Of these, one is Grade I, three are Grade II* and eight are Grade II. Athelhampton Hall a Tudor Manor House with origins dating back to the 15th Century, which together with its formal garden and grounds is listed as Grade I and open to the public. The gardens and grounds, dating to the late 19th Century, are included in English Heritage's 'Register of Parks and Gardens of Special Historic Interest'.

- 2.6.3 Four Scheduled Ancient Monuments exist in the area and these are shown on Figure 5. The most important of these are the Deserted Medieval Village of Bardolfeston to the north-west of Athelhampton and the length of Roman Road which survives as earthworks at Ashley Barn.

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- 2.6.4 The watermeadow system associated with the River Piddle to the north-west of Puddletown extend over a distance of almost 2km and are considered to be historically significant although they carry no official designation. The watering of these meadows appears to have begun by 1620 and they are one of the first pairs of watermeadows in Southern England, the other being at Affpuddle. In recent times the western section of the meadows have been greatly modified and the eastern part, adjacent to Druce Lane, have not been in use for many decades.
- 2.6.5 The Devil's Brook watermeadows at Burleston extend for just over 1km north of the village and were probably constructed towards the middle of the 17th Century. These were modified after 1842 by the building of Water Barn and the link road to Burleston Drove and more recently by the construction of a large trout pond at the southern end. The system of weirs sluices and channels is still managed traditionally and these are thought to be the only operational watermeadows in Dorset. The meadows have no official designation but are considered to be of historical significance.
- 2.6.6 A recent study identified a number of other sites and areas where archaeological features including green lanes, 'old roads', lynchets, crop marks and Bronze Age barrows were present. The majority of areas are only of local significance but four sites namely, the course of the Roman Road, a new Roman Site east of Tolpuddle Ball, an area to the south of the A35 at Tolpuddle Ball and a new Medieval site north of the A35 at the start of the Bere Regis Bypass are the subject of further investigations to ascertain their significance. The findings of the study are contained in an Archaeological Report which is available for reference purposes and is on deposit at Council Office inspection points listed in Appendix A.

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3.0 SCHEME DESCRIPTION

3.1 THE PUBLISHED ROUTE

3.1.1 The Published Route, as shown in Figures 6a and 6b would be a dual two lane all purpose carriageway, each carriageway 7.3 m wide with 1 m hard strips. It would commence at a two level junction, near Two Doves, at the eastern end of the Yellowham Hill to Troy Town Improvement which is currently under construction. A link is proposed connecting this junction with the existing A35 to the west of Puddletown to give access to the bypass at this location. The link would connect into the two level junction at a new roundabout on the south side.

3.1.2 From the Two Doves junction the route would descend in a north easterly direction and on crossing the existing A35 would enter a deep cutting (16 m maximum depth) into the hillside west of Puddletown. Charminster Lane would be diverted over the bypass on a three span reinforced concrete overbridge with bridleway diversions connecting Chine Hill Lane to Charminster Lane. The route would then cross the watermeadows and River Piddle to the north-west of Puddletown on a low level embankment rising to a height of 3 m over the flood and river culverts, this is an area considered to be of significant local nature conservation value. The embankment would be designed as a water retaining structure to cater for the Probable Maximum Flood, since, if this event were to occur the embankment could retain in excess of $25,000 \text{ m}^3$ of water and this brings it under the scope of the Reservoirs Act 1975. The Act requires that the design, construction and maintenance of such an embankment shall be supervised by a specialist engineer, approved by the Secretary of State for the Environment. The River Piddle would be diverted over a 220 m length and pass under the new road through a 5 m wide concrete river culvert. Two additional 4.8 m wide concrete flood culverts would be provided to enable flows resulting from floods upto the 250 year flood event to pass through the embankment with minimal afflux upstream.

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- 3.1.3 On the northern margin of the watermeadows the route would cross Druce Lane (B3142) passing to the north of Northbrook in an easterly direction through a deep cutting (7 m maximum depth). Druce Lane would be diverted east of its present alignment and over the bypass on a three span reinforced concrete overbridge then pass to the north of the sewage works before connecting back into the existing lane. Connections between the new and superseded lengths of Druce Lane would be provided to maintain access to the watermeadows and the sewage works. The small stream crossed by Druce Lane diversion would be culverted. Long Lane would be diverted along the northern boundary of the bypass and connect into the Druce Lane diversion.
- 3.1.4 After crossing Long Lane the route would intersect the A354 in a deep cutting (7 m maximum depth) north of Puddletown. A two level junction would be constructed with all turning movements provided for by slip roads linking the new road with the A354. The A354 would be realigned to pass over the new road and have roundabouts on both sides of the bypass. Due to existing ground levels the roundabout on the south side would be on a 4 m high embankment and the one on the north side in a 3 m deep cutting. The realigned A354 would be diverted to the east of its present route and would pass approximately 170 m north of the conservation area in Puddletown, carried over the bypass by a three span reinforced concrete overbridge.
- 3.1.5 From the A354, the route would rise in an easterly direction onto a low embankment, some 220 m south of Bardolf Manor, before cutting through a wooded area used for rearing game birds. Approximately 90 m north of the deserted ancient medieval village of Bardolfeston the route would start to descend through a deep cutting (7 m maximum depth) and pass north of the properties around Home Farm. The existing bridleway BR9 and the farm access track would cross the route on a three span reinforced concrete overbridge.

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- 3.1.6 The route would continue to descend onto a low embankment, south of Water Barn to cross the Devil's Brook valley and its associated watermeadows, an area considered to be of significant local conservation value. The Devil's Brook and its flood channel would each be diverted over lengths of approximately 80 m and pass through 4.8 m wide concrete culverts. An additional 4.8 m wide concrete flood culvert would also be constructed to enable flows resulting from floods upto the 250 year flood event to pass through the embankment with minimal afflux upstream. As in the case of the River Piddle embankment, this embankment also falls under the scope of the Reservoirs Act 1975 and will be designed as a water retaining structure.
- 3.1.7 From the watermeadows the route would continue in an easterly direction rising through a deep cutting (15 m maximum depth) and pass under Burleston Drove which would be carried over the route on a three span reinforced concrete overbridge. The route would continue to climb entering the Area of Great Landscape Value (AGLV) to the north of Burleston on embankment rising to a maximum height of 16 m. Stiles, steps and a crossing point in the central reserve would be provided for footpath FP5 which would be crossed by the route at this locality. Still rising the route would enter another deep cutting (6 m maximum depth) before reaching the ridge of high ground approximately 300 m north of the conservation area in Tolpuddle.
- 3.1.8 The route would then level out and continue in an easterly direction through the AGLV alternating between low embankments and shallow cuttings, well screened from Tolpuddle by the ridge of high ground. The track to Hill Barn would pass under the route through a reinforced concrete underbridge which would also form part of a diversion for bridleway BR6 and another agricultural crossing. East of the Hill Barn track the route would pass approximately 150 m north of an area of woodland, protected by a Tree Preservation Order, before passing under the unclassified road to Tolpuddle Common which would be carried over the route on a curved single span reinforced concrete overbridge.

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Further east the route would cross the course of an old Roman Road before rising to a high embankment (12 m maximum height) approximately 50 m to the north of Tolpuddle Ball, an area of woodland also protected by a tree preservation order.

- 3.1.9 From Tolpuddle Ball the route would descend through a deep cutting (8 m maximum depth), passing within 2 m of the boundary defined by the Tree Preservation Order, before running parallel and to the north of the existing A35 on a low embankment. At this point the C110, a classified county road to Milborne St Andrew, would be diverted to the west passing under the route through a reinforced concrete underbridge and link directly with the diverted B3390 to Affpuddle. Eastbound and westbound slip-roads onto the route would be constructed in the vicinity of this underbridge and a staggered ghost island junction formed between the diverted C110/B3390 and the existing A35.

- 3.1.10 The route would move out of the AGLV as it crossed the existing C110 approximately 10 m north of the existing A35 and descend on a high embankment (6 m maximum height) to join the existing A35 in the vicinity of the two properties known as Roadside or Roger's Hill Cottages which would need to be demolished. A proposed reinforced concrete underbridge at this location would maintain the access to Roger's Hill Farm and form part of a bridleway diversion for BR10. From this point the route would pass south of the avenue of lime trees leading to Roger's Hill Farm just avoiding the area defined by a Tree Preservation Order and then re-enter the AGLV. It would continue in an easterly direction, parallel with the existing A35 passing from low embankment into a deep cutting (7 m maximum depth) before connecting with the existing section of dual carriageway at the western end of the Bere Regis Bypass.

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3.2 DRAINAGE

3.2.1 Surface water run-off from paved areas of the route would pass through oil interceptors before being collected in soakaway or flood attenuation lagoons. These would be generally situated adjacent to the route and their positions are shown on Figures 7a and 7b. The flood attenuation lagoon to the south of the A354 junction would just encroach into the part of the conservation area north of Puddletown.

3.2.2 The soakaway lagoons would retain surface water run-off then allow it to permeate through the topsoil and subsoils to the chalk beneath. Flood attenuation lagoons would provide a temporary storage facility for run-off during storm conditions and then allow discharge into streams or watercourse at controlled levels of flow agreed with the National Rivers Authority.

3.2.3 The drainage system would also include provision of storage facility sites for use by the emergency services in the event of accidental spillage of hazardous liquids on the road. These facilities, consisting of underground tanks, would be linked to the highway drainage system and provided in the vicinity of the junctions at Troy Town, the A354 and the B3390.

3.3 LIGHTING

3.3.1 Consideration has been given to the requirements for lighting on the new roads. Lighting is proposed at the roundabout junction of the A35 Western Link with the southern slip-road of the Troy Town Interchange and at the two roundabouts which would form part of the A35/A354 grade separated junction to the north of Puddletown.

3.3.2 The A35 Western Link roundabout and its approaches would be lit by some fourteen 10 m high columns fitted with high pressure sodium lamps and low threshold increment (LTI) cut off lanterns.

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3.3.3 The two roundabouts and their approaches on the A35/A354 junction would be lit by some thirty one 10 m high columns fitted with high pressure sodium lamps and low threshold increment (LTI) cut off lanterns.

3.3.4 The existing A354, from its junction with the A35 to the Blue Vinney Public House, is currently lit by eight 10 m high columns fitted with low pressure sodium bulbs and medium threshold increment (MTI) semi cut off lanterns. Consideration will be given to extending the A354 lighting proposals on the south side of the route to connect up with this existing lighting.

3.4 LAYBYS

3.4.1 Four laybys would be provided for each of the eastbound and westbound carriageways spaced at between 2 km and 3.4 km intervals.

3.4.2 The laybys on the eastbound carriageway would be at the following locations:

<u>Chainage</u>	<u>Description</u>
1000	200 m east of Charminster Overbridge
4250	Adjacent to Footpath FP5
6200	100 m east of the course of the Old Roman Road
9000	Opposite existing track to Blackhill Dairy

3.4.3 The laybys on the westbound carriageway would be at the following locations:

<u>Chainage</u>	<u>Description</u>
900	100 m east of Charminster Overbridge
3200	100 m east of Home Farm Overbridge
6600	200 m west of Tolpuddle Ball
8800	200 m west of existing track to Blackhill Dairy

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3.5 TRAFFIC

- 3.5.1 The predicted assignment of traffic flows to the new road network are shown on Figures 2 and 3. The flows indicated are 24 hours Annual Average Daily Traffic (AADT) two way flows for 1995, the expected year of opening, based on low and high growth assumptions.
- 3.5.2 All through traffic is expected to transfer to the new road, this would remove between 90% and 95% of traffic on the existing A35 from Puddletown, Athelhampton, Burleston and Tolpuddle. It would also remove 85% of the A354 traffic from Puddletown.

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4.0 MITIGATION MEASURES

4.1 ROUTE SELECTION

4.1.1 Route selection and the design of the horizontal and vertical alignments are fundamental mitigation measures for minimizing any adverse effects of the proposed road. By selecting a route for the proposed A35 which passed to the north of the main settlements the higher limited impact on the landscape which could be reduced by various mitigation measures was considered against the greater noise and community severance effects of the alternative routes which could not be reduced.

4.1.2 Particular areas where measures have been taken to assist in mitigating the effects of the route are namely:

- a) At the western end a link included between the existing A35 and the published route to reduce severance on the length of A354 south of the published route.
- b) Amendments to Druce Lane diversion to reduce the length of river works and lessen the visual impact of the embankment.
- c) Earth mounding along the northern boundary of the route where it crosses Long Lane to reduce noise levels for cottages in Long Lane.
- d) In the vicinity of Bardolf Manor the route lowered to reduce visual impact.
- e) The height of the embankment across Devil's Brook lowered from 8 m to 2 m to avoid truncating the valley.
- f) Amendments to the form of the B3390 junction to reduce its visual impact.

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- g) Amendments to the horizontal and vertical alignments to avoid the avenue of lime trees leading to Roger's Hill Farm and two other sites of ecological interest.

4.2 PUBLIC RIGHTS OF WAY

- 4.2.1 All public rights of way affected by the route would be maintained by diversions.
- 4.2.2 Bridges would be provided for all bridleway diversions which cross the route and these would also be used for agricultural crossings.
- 4.2.3 One footpath FP5, would cross the route by the provision of stiles, steps and a crossing facility in the central reserve.
- 4.2.4 At the eastern end of the route bridleway BR1 and part of bridleway BR33 would be re-classified as a footpath.
- 4.2.5 Details of the proposed diversions are shown on Figures 6a and 6b.

4.3 AGRICULTURE

- 4.3.1 Of the thirteen farms affected by the proposed route, seven would suffer severance. The disruption to farming operations would be minimized by the provision bridges over or under the route which would serve as combined agricultural and public rights of way crossing points. Other types of accommodation works would be provided where these are feasible and can be justified.
- 4.3.2 Landtake would be minimized by the re-grading of some embankment slopes which, where possible, would be returned to agriculture.

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4.4 LANDSCAPE

4.4.1 The landscape proposals are shown in Figures 7a and 7b. These have been designed to complement the route selection and to mitigate adverse environmental effects by:

- a) Planting to both reflect and link in with the existing pattern of hedgerows, plantations and linear copses.
- b) Some re-grading and amenity moulding to assimilate the road into the existing landform.
- c) Conservation interest would be enhanced by establishing native flora in certain selected locations and where possible by encouraging wetland/marginal habitat within and adjacent to the soakaway and flood attenuation lagoons.

4.4.2 At the western end of the scheme, both the proposed route and the A35 Western Link are on embankments. To assimilate the roads into the landscape the embankment on the south side of the Western Link would be re-graded and returned to agriculture. The area between the roads would be infilled and receive additional planting thus effectively extending Troy Town Copse and reducing any impact of the roundabout and its lighting.

4.4.3 The route would enter a deep cutting in the hillside west of Puddletown creating a notch visible from both the watermeadows and to road users approaching from Dorchester. Additional excavation would be undertaken at the top of the cutting to marry the hillside into the cutting face and at the eastern end additional landtake would provide the opportunity for tree/shrub planting to restrict views along the cutting.

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- 4.4.4 The proposed route would cross the watermeadows north west of Puddletown on low embankment. The soakaway and flood attenuation lagoons on the south side of the route adjacent to Chine Hill Lane would provide the opportunity for extending the hedgerow network helping, in time, to screen moving traffic from properties in west Puddletown. The embankment slopes would be protected by a revetment of voided concrete blocks, the voids filled with local topsoil and seeded.
- 4.4.5 The diverted Druce Lane would be bounded by hedgerow planting to reflect and link with the existing hedgerow pattern. Additional planting and re-grading on the north side of Druce Lane Overbridge would reduce visual impact of the embankment. North of Northbrook the impact of the route is limited because of the deep cutting and this would be further reduced by planting along the cutting face. Earth mounding on both sides of the carriageway, where the route crosses Long Lane, would reduce noise levels and increase the effectiveness of the proposed screen planting.
- 4.4.6 At the junction of the proposed route with the A354 extensive planting and re-grading of the embankments on the south side would be undertaken to reduce the impact of the junction and its lighting on Northbrook and north Puddletown. The earth bunds surrounding the soakaway and flood attenuation lagoons would be planted to provide a screen between north Puddletown and the A354 junction whilst some off-site planting is proposed to supplement and reinforce the existing tree screen along the River Piddle.
- 4.4.7 South of Bardolf Manor the route would be on a low embankment and in order to screen moving traffic from the Manor, yet retain the extensive views enjoyed across the valley, some earth mounding on the north side of the route adjacent to the embankment would be undertaken and the land returned to the landowner. This part of the route would also be visible from the north of Puddletown and some additional tree/shrub planting is proposed on the south side of the route which would, in time, screen the moving traffic.

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- 4.4.8 Between Bardolf Manor and Devil's Brook the route would be in cutting and this, together with further planting to link in with the existing plantation, would screen the road. At Devil's Brook the route would pass through an area of willow carr, appropriate planting around the flood attenuation lagoon south of the route at Water Barn will reduce the impact of habitat loss. East of Devil's Brook a deep east-west cutting would be planted to link in with the Burleston Plantation; this cutting would not be highly visible.
- 4.4.9 To the east of Burleston the route would strike across the landform in a series of embankments and cuttings but these would be screened from Tolpuddle and Affpuddle by intervening high ground. Planting proposals would link roadside planting with north-south copses and at the Hill Barn and Tolpuddle Common bridge sites new copses would be created. To the north of Tolpuddle Ball the high embankment and deep cutting would be assimilated into the landscape by extending the woodland at Tolpuddle Ball into these areas.
- 4.4.10 The junction with the diverted B3390 and existing A35 to the east of Tolpuddle Ball would be located on the crest of a hill with ground falling away to Roger's Hill Farm to the north and Affpuddle to the south. The moderate impact of this junction when viewed from these two places would be reduced by re-grading embankment slopes together with planting proposals along side the existing A35 and the new route, the areas of re-graded land being returned to agriculture. Further planting would be undertaken between the slip-roads of the junction linking this with and forming a substantial extension to Tolpuddle Ball.

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4.4.11 Beyond Roger's Hill Farm the proposed route would follow the present A35, widening the existing road corridor on the south side. The northern embankment of the new route would be re-graded over the broken up existing road avoiding a small copse and an area of semi improved grassland. The copse would be extended up to the proposed route and the re-graded embankment slope covered in a mixture of local topsoil/subsoil to encourage the establishment of native flora. Hedgerow planting along the edge of the route would reflect the existing hedgerow pattern and form a link with the new planting along the Bere Regis Bypass.

4.4.12 The above proposals are explained in greater detail in the Landscape Report which is available for reference purposes and is on deposit at Council Office inspection points listed in Appendix A.

4.5 ECOLOGY

4.5.1 The ecological study undertaken recommends several general mitigation measures relating to sites of habitat importance identified in the study together with specific measures relating to the impacts on the watercourse.

4.5.2 The general mitigation measures to be adopted would be as follows:

- a) Both the District Councils and the County Council, as the local planning authorities, would be notified of the location of sites of habitat importance so that they could be taken into account when considering any applications made by the Contractor for tip sites.
- b) Temporary or permanent fencing would prevent unnecessary encroachment and damage into areas outside the route corridor. Where areas of significant importance lie close to the route corridor this fencing would be erected prior to the start of any works adjacent to these areas.

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- c) Imported rockfill would be specified to have a similar pH value to the local substrates.
- d) Ground water control measures to ensure the stability of the embankments across the watermeadows would be designed such as to not seriously affect the existing water regime.
- f) Storage of plant and materials within the site boundaries would not be permitted in ecologically sensitive areas.
- g) The impact on Badger ranges intersected by the route would be reduced by the use of Badger Fencing in conjunction with some of the proposed over or under bridges crossing the route.
- h) Specialist advice would be sought prior to the opening of the road on mitigation measures necessary outside the road corridor to discourage owls from the vicinity of the road.
- i) Certain of the verges, embankment and cutting slopes, together with other landscape areas would be used to create replacement habitat for those lost as a result of the route. Appropriate specifications for grass seed mixture would be incorporated in the contract after consultation with English Nature and Dorset County Council.

4.5.3 The specific mitigation measures relating to the impact on the watercourses would be as follows:

- a) The fish populations in the River Piddle and the Devil's Brook, with its associated flood channel, are worthy of active conservation and preservation. Although it must be accepted that the culverted sections along these watercourses will involve some loss of habitat it is the intention to construct the concrete inverts of the river culverts 500 mm below bed level to maintain the continuity of the river bed through the culverts and prevent any steps forming which would obstruct fishing movements upstream at spawning time.

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- b) Diverted lengths of watercourses would be constructed with habitat features necessary to re-create a satisfactory environment for the trout and the invertebrate fauna on which they feed.
- c) Diverted watercourses would be either lined to maintain summer flows or be left unlined allowing ground water flows to augment the watercourse flows. Decisions on this would be undertaken in consultation with the National Rivers Authority.
- d) Measures would be taken to prevent the pollution of aquifers and watercourses both during the construction phase and when the route is in operation.

4.5.4 The report on the 'Ecological Baseline and Impact Assessment of Published Route' is available for reference purposes and is on deposit at Council Office inspection points listed in Appendix A.

4.6 HERITAGE

4.6.1 The Grade II listed building at Stafford Park Farm, Northbrook would have its setting marginally affected by the A354 junction. Earth mounding, regrading of embankments together with tree and shrub planting would be introduced to reduce the visual intrusion. The Grade II listed building at The Moor, Puddletown would also suffer significant visual intrusion and offsite planting by agreement along the rear of the building would be offered to reduce this impact.

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4.6.2 The route corridor passes within 90m of the northern boundary of the site of the deserted village of Bardolfeston, a Schedule Ancient Monument. As part of a recent Archaeological Survey the area between the village and the proposed road was investigated and the findings indicated that the village never extended north of the present earthworks which fall within the boundary of the Schedule Ancient Monument.

4.6.3 Further investigations are currently being undertaken at the four archaeological sites of the Roman Road, the new Roman Site east of Tolpuddle Ball, an area of land to the south of the A35 at Tolpuddle Ball and the new Medieval Site north of the A35 at the start of the Bere Regis Bypass. Opportunity will be given for rescue archaeology prior to the start of the earthworks if these are recommended as a result of these investigations.

4.7 NOISE

4.7.1 Details of the numbers of properties which would experience changes in noise levels are given in the Appraisal Framework contained in Section 5 of this document.

4.7.2 A noise attenuation bund would be formed by earth mounding along the northern boundary of the published route where it crosses Long Lane. This would reduce the noise level for the three cottages in Long Lane by up to 3 db(A) as well as providing some visual benefits.

4.7.3 A visual screening bund would be formed along the southern boundary of the route, opposite the noise bund. This would also have some mitigating effect on the noise levels for properties at Stafford Park Farm and 1 to 4 Northbrook.

4.7.4 Effects of construction noise are being investigated and insulation will be offered to those properties where it is considered significant noise levels would be experienced over a prolonged period.

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4.8 LIGHTING

- 4.8.1 The lighting proposals for the roundabout junction on the A35 Western Link and for the two roundabouts which form part of the A35/A354 grade separated junction to the north of Puddletown would be designed to minimize the impact of the lighting commensurate with road safety.
- 4.8.2 Proposals include the use of 10 m high columns as against the lower 8 m high columns in order to reduce the number required and to restrict the columns to one side only on the approach roads to the roundabouts.
- 4.8.3 High pressure sodium lamps which give a white light are proposed for their quality of light together with low threshold increment (LTI) cut off lanterns to minimize light spillage away from the road. Low pressure sodium lamps giving an orange light are currently in use on the existing A35 and A354 but in conservation areas it is Dorset County Council's aim to replace these with high pressure sodium lamps.
- 4.8.4 No other lighting is presently contemplated along the published route.

ENVIRONMENTAL STATEMENT

5.0 DATA ON ENVIRONMENTAL EFFECTS (Appraisal Framework)

5.1 A summary of the environmental effects of the preferred scheme is provided in tabular form in this section. The format follows that of the appraisal framework specified in the Department of Transport's Manual of Environmental Appraisal. The frameworks summarize the overall effects of construction and operation of the preferred scheme. The frameworks also describe the implications of not constructing the scheme but carrying out a minor improvement of the A35/A354 junction within columns headed 'do-minimum'.

5.2 The summary of the environmental effects of the preferred scheme, as presented within the frameworks, has been derived from more detailed work comprising consultations with Statutory Authorities and other bodies, desk studies, fieldwork and computer modelling.

5.3 The frameworks are 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
- 6) Financial effects

5.4 The effects on travellers are considered in Group 1 which comprises an economic appraisal of the savings associated with the scheme and an estimate of the reduction in road traffic casualties as a result of the scheme. These are shown for both High and Low growth traffic forecasts which indicate the range of optimistic and pessimistic assumptions on growth in income and fuel prices. Since High and Low growth forecasts are regarded as equally possible outcomes the appraisal is carried out for both ends of the range. Also given are estimates of driver stress and quality of views from the road.

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- 5.5 Within Group 2, the 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, air quality, disruption during construction and loss of land or buildings.
- 5.6 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. This 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 'comments' column.
- 5.7 The degree to which the scheme complies with transport policies and with central and local governments' policies relating to land use and economic development is outlined in Group 5.
- 5.8 Group 6 considers the Net Present Value (NPV) of the scheme by balancing the scheme costs against the benefits derived within Group 1. This is shown for both the High and Low growth forecasts indicating the range of NPV. Groups 1 and 6 are considered only within the overall framework for the scheme, as financial benefits are dependent on the scheme in its entirety. The effects of the scheme on transport and development policies are also considered within the overall framework but not within the sub-framework.
- 5.9 Certain issues listed within Annex III of the European Community Directive on environmental assessment (85/337/EEC) have not been considered within the framework (such as effects of the scheme on climatic factors) as they are not significant. The effects on consequential development have not been considered either as these will be subject to the policies of the relevant Planning Authorities.

A35 TOLPUDDLE TO PUDDLETOWN BYPASS

ASSESSMENT FRAMEWORK

GROUP 1 : Travellers			Published Route		Do Minimum	Comments
Sub Group	Effects	Units	High	Low		
Car users	Time savings	£m (PVB)	18.48	0.60	0	<p>Notes A, B and C apply to the first nine lines:</p> <p>A. Each column shows the improvements of the published 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 national average figures for vehicle occupancy and for accident rates and costs apply.</p>
	Vehicle operating cost savings	£m (PVB)	-0.87	1.09	0	
Users of Light Goods Vehicles	Time savings	£m (PVB)	3.33	1.77	0	
	Vehicle operating cost savings	£m (PVB)	-0.11	0.13	0	
Users of Heavy Goods Vehicles	Time savings	£m (PVB)	2.30	1.26	0	
	Vehicle operating cost savings	£m (PVB)	-0.05	0.11	0	
Bus Operators and Passengers	Time savings	£m (PVB)	0.70	0.45	0	<p>The figures indicate the probable total reduction in casualties over the whole of the 30 year assessment period if the national average rates and distribution between groups apply. They take no account of the safety implications of the detailed design of the new route</p>
	Vehicle operating cost savings	£m (PVB)	0.01	0.01	0	
All Vehicle Travellers	Value of accident savings	£m (PVB)	8.97	6.03	0	
	Reduction in casualties					
	Fatal	number	29	24	0	
	Serious	number	255	211	0	
	Slight	number	728	605	0	
Driver Stress			Low		High	
View from Road			Mainly agricultural and generally restricted but with intermittent views at Devil's Brook, north of Tolpuddle and east of Roger's Hill Farm. Some open views at River Piddle Watermeadows and north-east of Hill Barn Overbridge		Mainly agricultural but through the residential areas in Puddletown and Tolpuddle the views are restricted. Views elsewhere are intermittent except between Bursledon and Tolpuddle and Tolpuddle to Bere Regis where they are open	
Traffic delays during construction			Negligible		Significant	

GROUP 1 : Travellers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Cyclists and Pedestrians	Change in amenity and safety		Transfer of through traffic to the Published route will give substantial benefits in terms of safety, relief from community severance, reduced air pollution and lower noise levels	Increased traffic growth will reduce amenity along existing A35, increase the danger of accidents to cyclists and pedestrians, increase air pollution and raise noise levels	Published route will remove between 90% and 95% of A35 traffic from Puddletown, Athelhampton, Burleston and Tolpuddle. It will also remove 85% of the A354 traffic from Puddletown. Long distance as well as local cyclists will be able to use existing A35 after de-trunking

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GROUP 2 : Occupiers

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Residential	Properties Demolished	Number	2	0	Properties demolished would be the Rogers Hill Cottages which abut the existing A35 Trunk Road. The cost of property acquisition and demolition is included in Group 6.
	Noise	Number of houses experiencing increase of:			The changes in noise are the difference between the high growth traffic forecast for each option for 2010 and the existing levels. The units are dB (A) L10 18 hours. 6.00 am - midnight. No properties are eligible for double glazing under the Noise Insulation Regulation 1975 as amended by the Noise Insulation (Amendment) Regulations (1988)
		More than 15dB (A) L10	10	0	
		10-15 dB	14	0	
		5-10 dB	5	0	
		3-5 dB	3	0	
		Number of houses experiencing decrease of :			
		More than 15 dB (A) L10	0	0	
		10-15 dB	184	0	
		5-10 dB	55	0	
		3-5 dB	70	0	
	Visual Obstruction	Number of properties within 300 m of centre line subject to:			Visual obstruction and visual intrusion assessments have been made at the time of opening of the route and do not take into account any tree screening proposals. Details of affected properties are given in the Landscape Report which is on deposit at the addresses given in Appendix A
		High	0	No change	
		Moderate	10	No change	
		Slight	21	No change	
	Visual Intrusion		High intrusion to 22 properties Moderate intrusion to 7 properties Slight intrusion to 28 properties	No change No change No change	
	Severance				
	a. Relief to existing severance		Substantial improvement	No improvement	The traffic growth predicted will increase severance between communities in the Do Minimum case
	b. Imposition of new severance		Moderate severance of 3 cottages in Long Lane	None	

GROUP 2 : Occupiers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Residential (continued)	Air Quality	CO concentration parts per million (ppm)	The annual average peak hour concentrations in any of the first fifteen years after opening are predicted to be less than 4 ppm at all properties adjacent to the new road and the existing A35	Peak hour concentrations at 18 properties in Puddletown are predicted to exceed 4 ppm by 2001. This number will rise to 27 properties in Puddletown and 32 properties in Tolpuddle by the year 2010	An annual average peak hour concentration of 4 ppm or more indicates that an air pollution problem exists. Predicted concentrations have been calculated using high growth traffic figures
	Disruption during construction		37 houses within 100 m of site	None	
Industrial Premises	No industrial premises affected				
Commercial Premises					
a. Office Buildings	Noise Increase	Number subject to increase of more than 5 dB (A) L10	0	0	
	Noise decrease	Number subject to decrease of more than 5 dB (A) L10	2	0	
	Disruption during construction		None	None	

GROUP 2 : Occupiers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Commercial Premises (continued)					
b. Shops	Noise Increase	Number subject to Increase of more than 5 dB (A) L10	0	0	
	Noise decrease	Number subject to decrease of more than 5 dB (A) L10	5	0	
	Severance				
	a. Relief to existing severance		Substantial improvement	Increased traffic will worsen existing severance	
	b. Imposition of new severance		None	None	
	Air Quality	CO concentration parts per million (ppm)	Peak hour concentrations in any of the first 15 years after opening are predicted to be less than 4 ppm for all shops on the existing A35	2 shops on the A35 are predicted to be exposed to peak hour concentrations in excess of 4 ppm by the year 2001. This number will rise to 4 No. by the year 2010	Predicted concentrations have been calculated using high growth traffic figures
	Disruption during construction		None	2 Shops within 100 m of site	

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GROUP 2 : Occupiers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Comercial Premises (continued)					
c. Public Houses, and Market Garden Centre	Noise increase	Number subject to increase of more than 5 dB (A) L10	0	0	
	Noise decrease	Number subject to decrease of more than 5 dB (A) L10	4	0	
	Visual intrusion		Slight intrusion to 1 property	No change	Property affected is the Blue Vinney Public House
	Severance				
	a. Relief to existing severance		Substantial Improvement	Increased traffic will worsen existing severance	
	b. Imposition of new severance		None	None	
	Air Quality	CO concentration parts per million (ppm)	Peak hour concentrations in any of the first 15 years after opening are predicted to be less than 4 ppm for the Prince of Wales public house	Prince of Wales public house is predicted to be exposed to peak hour concentrations in excess of 4 ppm by the year 2001	Predicted concentrations have been calculated using high growth traffic figures
	Disruption during construction		None	None	

GROUP 2 : Occupiers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Commercial Premises (continued)					
d. Garages and Service Stations	Noise Increase	Number subject to increase of more than 5 dB (A)L10	0	0	
	Noise decrease	Number subject to decrease of more than 5 dB (A)L10	3	0	
	Severance				
	a. Relief to existing severance		Substantial improvement	Increase in traffic will worsen existing severance	
	b. Imposition of new severance		None	None	
	Air Quality	CO concentration parts per million (ppm)	Peak hour concentrations in any of the first 15 years after opening are predicted to be less than 4ppm for the garage on the existing A35	The garage on the A35 in Puddletown is predicted to be exposed to peak hour concentrations in excess of 4 ppm by the year 2001	Predicted concentrations have been calculated using high growth traffic figures
	Disruption during construction		None	None	

GROUP 2 : Occupiers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Schools					
Puddletown Voluntary Controlled First School (99 pupils 1990)	Noise	dB (A) L10	10-15 dB (A) L10 reduction	0-3 dB (a) L10 increase	
	Severance				
	a. Relief to existing severance		Substantial improvement	Increased in traffic will worsen existing severance	
	b. Imposition of new severance		None	None	
	Disruption during construction		None	None	
Farming		Number of Farms affected by landtake/ severance	13	0	Of the thirteen farms affected by the route three are considered to be seriously affected, four significantly and six slightly. A total of seven farms will suffer severance, on three of these the area of land separated from the main holding will be relatively small and on one other there is no land loss. An Agricultural Report is available for inspection and is on deposit at the addresses given in Appendix A
	Landtake	Hectares of land			
		Grade 1	4.20	0	
		Grade 2	17.25	0	
		Grade 3a	22.46	0	
		Grade 3b	24.50	0	Based on MAFF Agricultural Land Classification Survey
		Grade 4	0.38	0	(1:10,000)
		Woodland	1.39	0	Compensation included in Group 6
Open Space					
a. Sports Ground adjacent to A35 Puddletown	Landtake	Heclares	0	0	Effects on users appears in Group 3

Group 3 : Users of Facilities

Sub Group : Users of:	Effects	Published Route	Do Minimum	Comments
a) Shops in Puddletown and Tolpuddle	Reduction of vehicle/ pedestrian conflict	Significant reduction of traffic in Puddletown and Tolpuddle	Existing vehicle/pedestrian conflict will increase with traffic growth	Substantial benefits to residents of these two villages
b) Sports Ground	Reduction of amenity from visual intrusion	Slight intrusion	No effect	Views taken from the pavilion
c) South Dorset Hunt (160 members in 1989-90)	Severance	Moderate	No effect	Hunt in area between 1 September and 1 March on approximately 6 days. Average turnout 40 - 50 riders
d) Bardolfeston Medieval Village Site	a. Noise	i) 10-15 dB (A) L10 increase at nearest point of the site to the route.	No effect	The site of the Deserted Medieval Village of Bardolfeston is a Scheduled Ancient Monument. Access to the village is by bridleway BR9 which will remain. The published route passes to the north of the site with a minimum distance of 90 m between their respective boundaries together with its formal gardens and grounds
		ii) 5-10 dB (A) L(10) increase in the centre of the site	No effect	
	b. Visual Intrusion	Slight intrusion at the western end of the site	No effect	
	c. Severance	None	No effect	
e) Athelhampton Hall	a. Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	Athelhampton Hall together with its formal gardens and grounds is a Grade I listed building. Its gardens are also in English Heritage's 'Register of Parks and Gardens of Special Historic Interest'
f) Tolpuddle Martyrs Cottage Museum	a. Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	
	b. Severance from layby used for parking	Substantial Improvement	No change	

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Group 3 : Users of Facilities (continued)

Sub Group : Users of:	Effects	Published Route	Do Minimum	Comments
g) Puddletown Library and Village Hall (Used by average of 112 people each week in 1990)	a) Reduction of vehicle/ pedestrian conflict	Significant reduction of traffic in Puddletown	Hazard increases with traffic growth	Predicted concentrations have been calculated using high growth traffic figures
	b) Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	
	c) Air Quality	Peak hour concentrations are predicted not to exceed 4 ppm by the year 2010	Peak hour concentrations are predicted to exceed 4 ppm by the year 2010	
h) Tolpuddle Village Hall	a) Reduction of vehicle/ pedestrian conflict	Significant reduction of traffic in Tolpuddle	Hazard increases with traffic growth	
	b) Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	
i) St John's Church Tolpuddle	a) Reduction of vehicle/ pedestrian conflict	Significant reduction of traffic in Tolpuddle	Hazard increases with traffic growth	
	b) Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	
j) Methodist Chapel Tolpuddle	a) Reduction of vehicle/ pedestrian conflict	Significant reduction of traffic in Tolpuddle	Hazard increases with traffic growth	
	b) Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	
k) Bridleways and footpaths	a) Severance	Slight to bridleway BR28 and BR1 Slight to footpath FP5 Moderate to bridleway BR6	No change	
	b) Disruption during construction	Temporary diversions to all bridleways and footpaths affected by the route	No change	
	c) Change of use	Bridleway BR1 (Turnerspuddle CP) and 100 m of Bridleway BR33 (Bere Regis CP) to be re-designed as a Public Footpath	No change	

Group 4 : Policies for conserving and enhancing the area

Policy	Authority	Interest	Published Route	Do Minimum	Comments
a) To maintain and enhance the quality and distinctive character of the landscape	Dorset County Council	The effect on the Area of Great Landscape Value (AGLV)	The route crosses the AGLV between Burleston and Rogers Hill Farm.	No effect	Route designed to be screened from Tolpuddle and Affpuddle by intervening high ground. Landscape proposals designed to integrate route into surrounding area
b) To protect valley areas of historical and wildlife value	Dorset County Council West Dorset District Council National Rivers Authority Dorset Trust for Nature Conservation	The effects on the River Piddle, the Devil's Brook and their associated watermeadows	The route passes through the River Piddle and Devil's Brook valleys on low level embankments which would result in some severance and habitat loss. The River Piddle would be diverted over a 220 m length, the Devil's Brook and its flood channel would each be diverted over 80 m lengths	No effect	Measures will be taken to minimise impact on hydrological regime of watermeadows. Length of diversions minimised and designed to recreate habitat features lost. The impact on the main area of operating watermeadows at Devil's Brook, which is also an area of significant importance for wintering wildfowl, is unlikely to be high
c) To protect areas of historical woodlands and other woodland features of nature conservation importance	English Nature Dorset County Council West Dorset District Council Purbeck District Council Dorset Trust for Nature Conservation	The effect on the following: 1) Deciduous Woodland adjacent to A354 north of Puddletown	One of the A354 junction sliproads would remove some mature trees and woodland habitat at the southern end of the woodland	No effect	Woodlands are considered to be of local importance but impact of the road not regarded as having high ecological significance
		2) Willow Carr Devil's Brook	The low level embankment across Devil's Brook valley would result in some habitat loss and severance	No effect	Locally important woodlands. Of all wooded areas affected this is considered the most natural and provides the best wildlife habitat but impact of road would not be highly significant
		3) Tolpuddle Ball	Route passes to the north of Tolpuddle Ball within 2 m of the area defined by a Tree Preservation Order	No effect	Tolpuddle Ball protected by a Tree Preservation Order
		4) Avenue of Lime Trees at Roger's Hill Farm	Route passes to the south of the lime trees within 1 m of the area defined by a Tree Preservation Order	No effect	Lime trees protected by a Tree Preservation Order

Group 4 : Policies for conserving and enhancing the area (continued)

Policy	Authority	Interest	Published Route	Do Minimum	Comments
d) To protect Historical Parks and Gardens of Special Interest	Department of Environment English Heritage Dorset County Council West Dorset District Council	To protect the registered gardens of Athelhampton Hall	Between 90% and 95% of the traffic on the existing A35 would transfer to the route	No effect	There would be significant improvement to the enjoyment of the gardens
e) Development will not normally be permitted within the flood plain of any river or water course	National Rivers Authority West Dorset District Council	The effect on the: River Piddle and Devil's Brook Watermeadows	The route crosses both watermeadows on low level embankments. Culvert sizes and locations, together with side road alignments have been agreed with NRA to maintain existing flood characteristics upto the 100 year flood event	No effect	Run-off into existing water courses will be controlled by flood lagoons to discharge levels agreed by NRA
f) To control water pollution	National Rivers Authority	To safeguard water quality within inland waters and ground waters	Short terms impacts during construction to be minimised by the use of settlement lagoons. Potential long term impacts would be overcome by mitigation measures.	No effect	Surface water run-off from the road will pass through oil interceptors before discharging into soakaway lagoons or flood attenuation ponds
g) To protect sites of Archaeological and Historic Interest	Department of Environment English Heritage Dorset County Council West Dorset District Council Purbeck District Council	The effect on the following: 1) Site of the deserted medieval village of Bardolfeston, a Scheduled Ancient Monument	The route passes through the field adjoining the northern boundary of the site. There would be no direct physical impact but some increase in noise level and slight visual intrusion would occur at the site	No effect	An Archaeological Survey recently undertaken along the corridor of the route indicates that the village never extended further north than the existing northern boundary of the Scheduled Ancient Monument
		2) Four sites of Archaeological and Historic Interest identified by recent survey	Sites lie within the area affected by the route	No effect	Further survey work and trial excavations being undertaken to ascertain the importance of these sites and the need for possible rescue archaeology by others

Group 4 : Policies for conserving and enhancing the area (continued)

Policy	Authority	Interest	Published Route	Do Minimum	Comments
h) To protect listed buildings	Department of Environment English Heritage Dorset County Council West Dorset District Council	The effect on the listed buildings within the Conservation Areas of Puddletown and Tolpuddle together with the listed buildings at Athelhampton, Burleston and Northbrook	Number of listed buildings within 300 m of the centre line: Grade I 0 Grade II* 0 Grade II 2	Number of listed buildings within 300 m of the centre line: Grade I 4 Grade II* 9 Grade II 59	The 2 No. Grade II listed buildings within 300 m of the centre line of the route are The Moor, Puddletown and Stafford Park Farm, Northbrook
i) To protect and enhance Conservation Areas	West Dorset District Council	The effect on the Conservation Areas at Puddletown and Tolpuddle	The route will remove the majority of traffic from the existing A35 which will result in a significant enhancement to the character and appearance of both Conservation Areas	No effect	The oldest part of Puddletown and virtually all of Tolpuddle are designated Conservation Areas because of their historic and architectural interest
j) To maintain and develop bridleways and footpaths	Dorset County Council	The effect on any bridleways or footpaths affected by the route	Bridleway BR1 (Turnerspuddle CP) and part of Bridleway BR33 (Bere Regis CP) to be re-designated a Public Footpath. All other bridleways and footpaths maintained by diversions	No effect	Bridleway networks on either side of the A35 between the B3390 and Bere Regis Bypass will be linked by Bridleway BR10 passing under the route. The networks are presently linked by BR10 which is bisected by the A35 and this necessitates users crossing the trunk road

PJS/JET/STATE9/089089/048

Group 5 : Transport, development and economic policies

Policy	Authority	Interest	Published Route	Do Minimum	Comments
Transport					
To Improve the Trunk Road Network	Department of Transport	To assist economic growth	Significant improvement in journey times	Increase in delays with growth in traffic	Trunk Roads, England into the 1990's (1990)
		To improve the environment by removing through traffic from unsuitable roads in towns and villages	Through traffic on the A35 between Puddletown and Tolpuddle and on the A354 through Puddletown will be removed	Increase in traffic with resultant detriment of the environment in the settlements between Puddletown and Tolpuddle	
		To enhance road safety	Significant reduction in the number of accidents	Increase in number of accidents with growth in traffic	
Development					
To permit development within defined Development Boundaries	West Dorset District Council	The effect on future development in Puddletown	No effect	Will affect access arrangements and two car parking spaces on the proposed development of the King's Arms site, Puddletown	Planning Permission granted in December 1990 for twenty one residential properties on the King's Arms site, Puddletown

PJS/JET.STATE10

GROUP 6 : Financial Effects

Sub Group	Interest	Units	Published Route		Do Minimum	Comments
Department of Transport	Construction costs	£m (PVC)	13.18		0.04	Construction costs include preparation and supervision costs
	Land costs	£m (PVC)	0.71		0.01	Costs are discounted from years of expected expenditure to 1988 at 1988 prices PVC = Present Value of Costs
	Maintenance costs	£m (PVC)	0.69		0.31	Increase maintenance costs due to additional length of road
	Net Total costs	£m (PVC)	14.58		0.36	
Total quantified monetary benefits above do minimum		£m (PVB)	High	Low		Includes savings in time, vehicle operating costs and accidents from Group 1. PVB = Present Value of Benefits
			32.76	18.79		
Net present value compared to do minimum		£m (NPV)	18.54	4.57		NPV = Net Present Value

PJS/JET.STATE6

ENVIRONMENTAL STATEMENT

6.0 ALTERNATIVES CONSIDERED

6.1 Three routes were put forward at Public Consultation held in 1988 and these are shown on Figure 5. These were the Red Route north of Puddletown and Tolpuddle, the Orange Route south of Puddletown and Tolpuddle and the Purple Route which followed the Orange Route south of Puddletown before swinging north to follow the line of the Red Route north of Tolpuddle. Each of the routes were exhibited as a dual two lane all purpose carriageway with grade separated junctions.

6.2 Of the three routes put forward the Purple Route was considered to have the least impact on the landscape, the Red and Orange Routes having a higher impact at their western and eastern ends respectively. The Red Route affected one Area of Great Landscape Value whilst the Purple and Orange Routes affected two Areas of Great Landscape Value. The Orange Route also passed through a conservation area based on Affpuddle.

6.3 An Ecological Report of the Alternatives indicated that the Red Route affected four of the nine more ecologically important sites whilst the Orange and Purple Routes affected five sites. The overall conclusion of the report was that there was little difference in impacts on the ecology between the alternatives.

6.4 Both the Purple and Orange Routes would avoid the noise impact of the Red Route to the 10 properties in the vicinity of Long Lane but would create a noise impact to over 30 properties in White Hill and Butt Close on the southern edge of Puddletown. More importantly both the Purple and Orange Routes would leave the A354 traffic on its existing route through Puddletown. The Red Route, by intercepting the A354 north of Puddletown, would remove 85% of traffic on this road which would otherwise pass through Puddletown and in so doing would overcome significant noise and severance problems.

A35 TOLPUDDLE - PUDDLETOWN BYPASS

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6.5 As a result of the Public Consultation a number of members of the public proposed modifications to the alternative routes of which two exhibited potential for further investigation, these were as follows:

- a) A bypass link from the A354 to the A35 west of Puddletown in conjunction with the Purple and Orange Routes. A study undertaken concluded there was no economic benefit in providing this link and this would also result in two River Piddle watermeadow crossings.
- b) A link from A35 west of Puddletown to the grade separated junction at the eastern end of the Yellowham Hill Improvement. A study undertaken concluded that this had an economic benefit and would further reduce traffic flows on the A354. This modification has been included in the Published Route.

ENVIRONMENTAL STATEMENT

7.0 CHOICE OF PUBLISHED SCHEME

- 7.1 At Public Consultation 97% of the response came from local residents. The Published Route approximates closely to the Red Route which was supported by 84% of individual respondents. The Purple and Orange Routes were supported by 12% and 3% respectively with 1% supporting none of the routes.

The County, District and Parish Councils all preferred the Published Route. Of the other organizations and statutory undertakers consulted which totalled 57, 19 replied and of these 8 stated a preference. The majority of those stating a preference were in favour of the Purple Route.

- 7.2 The Published Route would remove all of the A354 through traffic from Puddletown, neither the Purple nor Orange Routes would relieve Puddletown of this traffic.

- 7.3 On environmental grounds the choice lay between the higher impact on the landscape that would occur at the western end of the Published Route against the noise and severance disadvantages created by traffic remaining on the A354 through Puddletown as a result of the alternative routes. This impact on the landscape could be reduced by mitigation measures whereas the noise and severance disadvantages could not be reduced. In terms of ecological impact, there was little difference between the routes.

- 7.4 The Published Route was the most expensive but gave the greatest economic return with the highest Net Present Value (NPV) of the alternatives.

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South West Construction Programme Division
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MAY 1991

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ENVIRONMENTAL STATEMENT

8.0 APPENDICES

8.1 APPENDIX A - Deposit Address for Supplementary Reports

8.1.1 The Landscape Report, The Agricultural Report, The Archaeological Report and The Ecological Baseline and Impact Assessment of Published Route Report are all on deposit at the following Council Offices and may be inspected free of charge at all reasonable hours from 31 May 1991 until 2 September 1991:

- a) Dorset County Council
County Hall
Dorchester
Dorset
DT1 1XJ
- b) West Dorset District Council
58-60 High West Road
Dorchester
Dorset
DT1 1UZ
- c) Purbeck District Council
Westport House
Wareham
Dorset
BH20 4PP

ENVIRONMENTAL STATEMENT

8.2 APPENDIX B - Figures

Figure 1 Location Plan

Figure 2 Predicted re-assignment of Traffic Flows on Road
Network in Year of Opening (1995) - Low Growth.

Figure 3 Predicted re-assignment of Traffic Flows on Road
Network in Year of Opening (1995) - High Growth

Figure 4a A35 : Existing Road Network, Sheet 1

4b A35 : Existing Road Network, Sheet 2

Figure 5 Alternative Routes at Public Consultation showing
areas of Especial Environmental Sensitivity

Figure 6a Published Route, Sheet 1

6b Published Route, Sheet 2

Figure 7a Mitigation Measures, Sheet 1

7b Mitigation Measures, Sheet 2



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A35 TOLPUDDLE TO PUDDLETOWN BYPASS

ENVIRONMENTAL STATEMENT

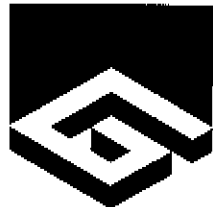
May 1991



THE DEPARTMENT
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**A35 TOLPUDDLE TO
PUDDLETOWN BYPASS
ENVIRONMENTAL STATEMENT**

MAY 1991



DEPARTMENT OF TRANSPORT
South West Construction
Programme Division
Tollgate House
Houlton Street
Bristol

A35 TOLPUDDLE - FODDLETON BYPASS

ENVIRONMENTAL STATEMENT

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A35 TOLPUDDLE - PUDDLETOWN BYPASS

ENVIRONMENTAL STATEMENT

1.0 INTRODUCTION

1.1 The A31/A35 Trunk Road is part of the Folkestone to Honiton Trunk Route which is the main east-west route along the south coast.

1.2 The National Roads Programme includes a number of improvement schemes on this road of which a Tolpuddle - Puddletown Bypass is an essential component. The main objectives of the scheme are to assist economic growth, to enhance road safety and to improve the environment by the removal of through traffic from the villages of Tolpuddle, Puddletown and nearby settlements.

1.3 The Secretary of State for Transport has published proposals for this scheme and this Environmental Statement is published summarizing an 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.

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2.0 SITE DESCRIPTION

2.1 SETTLEMENTS

2.1.1 The population within the area immediately affected by the scheme is largely concentrated in the two villages of Puddletown and Tolpuddle, which are located approximately 7 km and 10.5 km east of the County Town, Dorchester (see Figure 1).

2.1.2 Puddletown, the larger of the two villages, lies in the valley of the River Piddle and is divided by the A35 Trunk Road running east-west through the settlement. From the north the A354 County Road joins the A35 in Puddletown and creates further severance of the village. The village has schools which cater for primary and middle age groups, a selection of shops, a post office, two public houses and garages. Other community facilities include a church, village hall, library and sports ground.

2.1.3 The village of Tolpuddle situated to the east of Puddletown and further down the River Piddle valley, is a ribbon development straddling the A35 with many of its properties fronting directly onto the road. The oldest part of the village is at its western end with more recent residential infill development at the eastern end. Community facilities include a church, chapel and village hall, there is also a combined garage/general stores and public house.

2.1.4 Between Puddletown and Tolpuddle are the hamlets of Athelhampton and Burleston where virtually all the properties lie adjacent to the A35 with access directly onto the road. There are no community facilities in these hamlets.

2.1.5 To the south-east of Tolpuddle and not directly affected by the scheme lie the small villages of Affpuddle and Briantspuddle which are linked to the A35 by the B3390.

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2.2 ROAD NETWORK

2.2.1 The existing road network is shown in Figures 4a and 4b.

2.2.2 The A35 Trunk Road provides the main arterial route running through the area as well as providing links between local communities.

2.2.3 From Two Doves, west of Puddletown to the Bere Regis Bypass the A35 is a single two lane carriageway of variable standard and over this 9km length offers few safe overtaking opportunities.

2.2.4 Through Puddletown the A35 is subject to a 30 mph speed limit and the road is generally of standard width with footpath provision on both sides. In places the alignment is sub-standard and there is restricted visibility which coincides, in some cases, with minor side road junctions. At the western end of the village the A354, a Principal County Road, joins the A35 from the north at a traffic signal controlled junction and this causes considerable delays, especially at peak periods. The A35/A354 route provides a popular commuter link to Dorchester from settlements between Puddletown, Blandford Forum and beyond. Both the A35 and A354 in Puddletown have street lighting.

2.2.5 Between Puddletown and Tolpuddle the A35 is not subject to a speed limit. Its general alignment is sub-standard with road widths in places of less than 6 m and visibility restricted by narrow verges backed by high hedges. A number of private accesses, including Athelhampton Hall an historic house which is open to the public, front directly onto this de-restricted length of trunk road and this, combined with the above factors, contribute to the poor accident record for this section of road.

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2.2.6 From just west of Tolpuddle and through the centre of the village, the A35 is subject to a 30 mph speed limit which is then relaxed to 40 mph over the eastern part of the village. Sub-standard alignments, narrow road widths, restricted visibility and a number of minor road junctions are features of the A35 through Tolpuddle. This section of the road also has street lighting.

2.2.7 From Tolpuddle to the Bere Regis Bypass the standard of this de-restricted length of A35 is generally good. East of Tolpuddle Ball the B3390 joins the A35 from the south at a 'T' junction. In close proximity there is a crossroads formed between the A35 and the two minor roads leading to Milborne St Andrew and Briantspuddle. There are a number of farm and field accesses directly onto the trunk road over this length.

2.3 LAND USE

2.3.1 The area is of rural character with land predominantly devoted to agriculture, a high proportion of which is owner occupied. The farms are generally well structured in terms of size and shape and equipped with a good range of buildings and machinery.

2.3.2 The land is free draining, apart from the two low lying areas of watermeadow, and fields are generally medium to large in size bounded by hedgerows.

2.3.3 The grassland is utilized mainly for dairy cows although a number of farms also have small beef and sheep units. The arable land is virtually all down to cereals reflecting the relatively high quality of the soil.

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2.3.4 The watermeadows are a particularly interesting example of land use management dating back to medieval times which involves artificially regulating the flooding of the meadows by means of weirs, sluices and channels. This is normally carried out during the winter months to encourage grass growth and provide early pastureland for sheep. This method of flooding has not been used in the watermeadows to the north-west of Puddletown for a number of years and parts of the meadows have been re-seeded to provide semi-improved pastureland, however the Devil's Brook watermeadows are still managed in the traditional way.

2.3.5 There are also small areas of woodland which have been significantly modified. Many consist of planted conifers for soft wood timber production and most are managed for game.

2.3.6 Most of the land has some shooting interest and Bardolf Manor, in particular, has excellent shooting facilities.

2.4 LANDSCAPE

2.4.1 The area comprises an open valley occupied by the River Piddle and its associated watermeadow. To the north of this valley is an open rolling landscape forming a plateau which is bisected by a number of north-south valleys. The most pronounced of these valleys is occupied by Devil's Brook and its watermeadows which joins the main Piddle Valley just east of Burleston.

2.4.2 Views across the plateau are extensive and interrupted by linear copses which are generally orientated in a north-south direction. Smaller tree clumps are associated with disused chalk-pits. There are also several shelter-belts and plantations north of Puddletown. Three areas of woodland have Tree Preservation Orders, one is to the north of Tolpuddle and the other two, at Tolpuddle Ball and Roger's Hill Farm, are located at the eastern end of the scheme.

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- 2.4.3 To the south of the Piddle valley is a ridge running west to east, which separates the Piddle from the Frome Valley to the south. Much of this ridge is covered with mixed woodland or coniferous plantation. The most notable are Puddletown Forest in the west of the study area, Ilsington Wood south of Puddletown, and Affpuddle Heath to the east.
- 2.4.4 Between the wooded ridge and the River Piddle the landscape comprises a series of enclosed valleys to the south of Puddletown, whilst to the east the landscape is more open and punctuated by copses. South of Tolpuddle Ball the landscape becomes more open and there are extensive views from Affpuddle northwards.
- 2.4.5 Within the area (see Figure 5) there are two areas designated by Dorset County Council in the 1957 County Development Plan as being Areas of Great Landscape Value (AGLV). The first of these is located to the south of Puddletown, the second extends from Burleston to the east of Tolpuddle Ball. Although the County Development Plan is largely superseded, this designation is still applicable until the West Dorset District Eastern Area Local Plan, at present a consultative document, is adopted. In the consultative document the area is not given any special status for landscape quality.
- 2.5 ECOLOGY
- 2.5.1 There are no designated Sites of Special Scientific Interest (SSSI) or potential SSSI affected by the published route.
- 2.5.2 A detailed study was undertaken along the corridor of the published route to identify sites of terrestrial ecological value and to assess the aquatic ecology of the River Piddle and Devil's Brook. The findings of this study are contained in a report titled 'Ecological Baseline and Impact Assessment of Published Route' which is available for reference purposes and is on deposit at Council Office inspection points listed in Appendix A.

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- 2.5.3 There is a natural contrast between the well drained, fertile valley slopes on the higher ground, which under natural conditions would be wooded and the wetter low lying areas associated with the valley floor which would normally support willow and alder carr.
- 2.5.4 Most of the well drained land above the valley floor is improved agricultural land. The area is generally cleared of woodland and many fields have been ploughed for arable crops. Over the years enlargement of fields, application of artificial fertilizers and re-seeding of pastures have taken place with the result that it is generally of low value for wildlife.
- 2.5.5 The low lying areas associated with the River Piddle appear to have been developed as watermeadows in the seventeenth century. Typically they are largely poor in species but localised areas of wet grassland support an abundance of species. English Nature regard this area to be of high conservation value and it is considered to be of significant local importance. In the other low lying area around the Devil's Brook valley there are two distinctive forms of habitat, one is woodland composed of willow carr which is considered to be the most natural of the woodlands along the published route and the other is the watermeadows. Improved for agriculture, these watermeadows do not retain much botanical interest. However, the relatively mild climate, rich feeding facilities and traditional flooding of the meadows attract moderately large numbers of wildfowl, particularly in winter. The area may have some regional significance as a refuge for wildfowl but in general it is regarded as being more of local significant importance.

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- 2.5.6 The River Piddle and the Devil's Brook with its associated flood channel were studied upstream and downstream of the published route. The section of the River Piddle within this area is generally fast flowing with bed sediment varying from large stones to mud. The submerged aquatic vegetation is abundant but not diverse and the water quality high. A fisheries study indicated that the river is highly productive in terms of fish biomass and is an excellent trout stream. However, the section to be crossed by the road generally has little suitable habitat for trout and there is evidence of local diminution of water quality due to discharge from a nearby sewage works.

The Devil's Brook is a slow flowing brook within which there are isolated areas of faster flow. Bed deposits of thick mud are due to impedance of flow and organic inputs from surrounding vegetation. There is no submerged aquatic vegetation due to the woodland canopy and the water quality, especially in the summer, falls due to the reduction in flow and de-oxygenation caused by the breakdown of the organic matter. A fisheries study was not undertaken on the brook due to fallen trees and wooded banks.

The flood channel is a fast flowing water course lying to the east and running parallel with the Devil's Brook. It has a bed of varying stone sizes and grits with abundant submerged aquatic vegetation. The water quality is very high and the fisheries study indicated a good abundance of trout and eels.

2.6 HERITAGE

- 2.6.1 The oldest part of Puddletown and virtually all of Tolpuddle lie within two designated conservation areas reflecting the special historic and architectural interest attached to these villages. The area of the River Piddle valley lying to the south-east of Tolpuddle, including the smaller villages of Affpuddle and Briantspuddle, is also designated a conservation area.

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- 2.6.2 That part of Puddletown lying within the conservation area contains thirty nine listed buildings of which one is Grade I, three are Grade II* and thirty five are Grade II. The oldest of these is The Church of Saint Mary, a Grade I listed building, which has its origins in the 12th Century. The majority of listed buildings date from the 18th and 19th Centuries with the remainder dating from the 16th and 17th Centuries.

The conservation area around Tolpuddle contains twenty three listed buildings of which two are Grade I, three are Grade II* and eighteen are Grade II. The oldest of these is The Church of Saint John, a Grade I listed building originating in the 12th Century which also contains a monument to James Hammett, the only Tolpuddle Martyr to return to the village. The other Grade I listed building is the Martyrs' Cottage dating to the 18th Century and once the home of Thomas Standfield, one of the six martyrs. Most of the other buildings date between the 17th and 18th Century.

At Athelhampton and Burleston, as well as in parts of Puddletown and Tolpuddle outside the conservation areas, there are a further twelve listed buildings which are shown on Figure 5. Of these, one is Grade I, three are Grade II* and eight are Grade II. Athelhampton Hall a Tudor Manor House with origins dating back to the 15th Century, which together with its formal garden and grounds is listed as Grade I and open to the public. The gardens and grounds, dating to the late 19th Century, are included in English Heritage's 'Register of Parks and Gardens of Special Historic Interest'.

- 2.6.3 Four Scheduled Ancient Monuments exist in the area and these are shown on Figure 5. The most important of these are the Deserted Medieval Village of Bardolfeston to the north-west of Athelhampton and the length of Roman Road which survives as earthworks at Ashley Barn.

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- 2.6.4 The watermeadow system associated with the River Piddle to the north-west of Puddletown extend over a distance of almost 2km and are considered to be historically significant although they carry no official designation. The watering of these meadows appears to have begun by 1620 and they are one of the first pairs of watermeadows in Southern England, the other being at Affpuddle. In recent times the western section of the meadows have been greatly modified and the eastern part, adjacent to Druce Lane, have not been in use for many decades.
- 2.6.5 The Devil's Brook watermeadows at Burleston extend for just over 1km north of the village and were probably constructed towards the middle of the 17th Century. These were modified after 1842 by the building of Water Barn and the link road to Burleston Drove and more recently by the construction of a large trout pond at the southern end. The system of weirs sluices and channels is still managed traditionally and these are thought to be the only operational watermeadows in Dorset. The meadows have no official designation but are considered to be of historical significance.
- 2.6.6 A recent study identified a number of other sites and areas where archaeological features including green lanes, 'old roads', lynchets, crop marks and Bronze Age barrows were present. The majority of areas are only of local significance but four sites namely, the course of the Roman Road, a new Roman Site east of Tolpuddle Ball, an area to the south of the A35 at Tolpuddle Ball and a new Medieval site north of the A35 at the start of the Bere Regis Bypass are the subject of further investigations to ascertain their significance. The findings of the study are contained in an Archaeological Report which is available for reference purposes and is on deposit at Council Office inspection points listed in Appendix A.

ENVIRONMENTAL STATEMENT

3.0 SCHEME DESCRIPTION

3.1 THE PUBLISHED ROUTE

3.1.1 The Published Route, as shown in Figures 6a and 6b would be a dual two lane all purpose carriageway, each carriageway 7.3 m wide with 1 m hard strips. It would commence at a two level junction, near Two Doves, at the eastern end of the Yellowham Hill to Troy Town Improvement which is currently under construction. A link is proposed connecting this junction with the existing A35 to the west of Puddletown to give access to the bypass at this location. The link would connect into the two level junction at a new roundabout on the south side.

3.1.2 From the Two Doves junction the route would descend in a north easterly direction and on crossing the existing A35 would enter a deep cutting (16 m maximum depth) into the hillside west of Puddletown. Charminster Lane would be diverted over the bypass on a three span reinforced concrete overbridge with bridleway diversions connecting Chine Hill Lane to Charminster Lane. The route would then cross the watermeadows and River Piddle to the north-west of Puddletown on a low level embankment rising to a height of 3 m over the flood and river culverts, this is an area considered to be of significant local nature conservation value. The embankment would be designed as a water retaining structure to cater for the Probable Maximum Flood, since, if this event were to occur the embankment could retain in excess of $25,000 \text{ m}^3$ of water and this brings it under the scope of the Reservoirs Act 1975. The Act requires that the design, construction and maintenance of such an embankment shall be supervised by a specialist engineer, approved by the Secretary of State for the Environment. The River Piddle would be diverted over a 220 m length and pass under the new road through a 5 m wide concrete river culvert. Two additional 4.8 m wide concrete flood culverts would be provided to enable flows resulting from floods upto the 250 year flood event to pass through the embankment with minimal afflux upstream.

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- 3.1.3 On the northern margin of the watermeadows the route would cross Druce Lane (B3142) passing to the north of Northbrook in an easterly direction through a deep cutting (7 m maximum depth). Druce Lane would be diverted east of its present alignment and over the bypass on a three span reinforced concrete overbridge then pass to the north of the sewage works before connecting back into the existing lane. Connections between the new and superseded lengths of Druce Lane would be provided to maintain access to the watermeadows and the sewage works. The small stream crossed by Druce Lane diversion would be culverted. Long Lane would be diverted along the northern boundary of the bypass and connect into the Druce Lane diversion.
- 3.1.4 After crossing Long Lane the route would intersect the A354 in a deep cutting (7 m maximum depth) north of Puddletown. A two level junction would be constructed with all turning movements provided for by slip roads linking the new road with the A354. The A354 would be realigned to pass over the new road and have roundabouts on both sides of the bypass. Due to existing ground levels the roundabout on the south side would be on a 4 m high embankment and the one on the north side in a 3 m deep cutting. The realigned A354 would be diverted to the east of its present route and would pass approximately 170 m north of the conservation area in Puddletown, carried over the bypass by a three span reinforced concrete overbridge.
- 3.1.5 From the A354, the route would rise in an easterly direction onto a low embankment, some 220 m south of Bardolf Manor, before cutting through a wooded area used for rearing game birds. Approximately 90 m north of the deserted ancient medieval village of Bardolfeston the route would start to descend through a deep cutting (7 m maximum depth) and pass north of the properties around Home Farm. The existing bridleway BR9 and the farm access track would cross the route on a three span reinforced concrete overbridge.

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- 3.1.6 The route would continue to descend onto a low embankment, south of Water Barn to cross the Devil's Brook valley and its associated watermeadows, an area considered to be of significant local conservation value. The Devil's Brook and its flood channel would each be diverted over lengths of approximately 80 m and pass through 4.8 m wide concrete culverts. An additional 4.8 m wide concrete flood culvert would also be constructed to enable flows resulting from floods upto the 250 year flood event to pass through the embankment with minimal afflux upstream. As in the case of the River Piddle embankment, this embankment also falls under the scope of the Reservoirs Act 1975 and will be designed as a water retaining structure.
- 3.1.7 From the watermeadows the route would continue in an easterly direction rising through a deep cutting (15 m maximum depth) and pass under Burleston Drove which would be carried over the route on a three span reinforced concrete overbridge. The route would continue to climb entering the Area of Great Landscape Value (AGLV) to the north of Burleston on embankment rising to a maximum height of 16 m. Stiles, steps and a crossing point in the central reserve would be provided for footpath FP5 which would be crossed by the route at this locality. Still rising the route would enter another deep cutting (6 m maximum depth) before reaching the ridge of high ground approximately 300 m north of the conservation area in Tolpuddle.
- 3.1.8 The route would then level out and continue in an easterly direction through the AGLV alternating between low embankments and shallow cuttings, well screened from Tolpuddle by the ridge of high ground. The track to Hill Barn would pass under the route through a reinforced concrete underbridge which would also form part of a diversion for bridleway BR6 and another agricultural crossing. East of the Hill Barn track the route would pass approximately 150 m north of an area of woodland, protected by a Tree Preservation Order, before passing under the unclassified road to Tolpuddle Common which would be carried over the route on a curved single span reinforced concrete overbridge.

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Further east the route would cross the course of an old Roman Road before rising to a high embankment (12 m maximum height) approximately 50 m to the north of Tolpuddle Ball, an area of woodland also protected by a tree preservation order.

3.1.9 From Tolpuddle Ball the route would descend through a deep cutting (8 m maximum depth), passing within 2 m of the boundary defined by the Tree Preservation Order, before running parallel and to the north of the existing A35 on a low embankment. At this point the C110, a classified county road to Milborne St Andrew, would be diverted to the west passing under the route through a reinforced concrete underbridge and link directly with the diverted B3390 to Affpuddle. Eastbound and westbound slip-roads onto the route would be constructed in the vicinity of this underbridge and a staggered ghost island junction formed between the diverted C110/B3390 and the existing A35.

3.1.10 The route would move out of the AGLV as it crossed the existing C110 approximately 10 m north of the existing A35 and descend on a high embankment (6 m maximum height) to join the existing A35 in the vicinity of the two properties known as Roadside or Roger's Hill Cottages which would need to be demolished. A proposed reinforced concrete underbridge at this location would maintain the access to Roger's Hill Farm and form part of a bridleway diversion for BR10. From this point the route would pass south of the avenue of lime trees leading to Roger's Hill Farm just avoiding the area defined by a Tree Preservation Order and then re-enter the AGLV. It would continue in an easterly direction, parallel with the existing A35 passing from low embankment into a deep cutting (7 m maximum depth) before connecting with the existing section of dual carriageway at the western end of the Bere Regis Bypass.

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3.2 DRAINAGE

3.2.1 Surface water run-off from paved areas of the route would pass through oil interceptors before being collected in soakaway or flood attenuation lagoons. These would be generally situated adjacent to the route and their positions are shown on Figures 7a and 7b. The flood attenuation lagoon to the south of the A354 junction would just encroach into the part of the conservation area north of Puddletown.

3.2.2 The soakaway lagoons would retain surface water run-off then allow it to permeate through the topsoil and subsoils to the chalk beneath. Flood attenuation lagoons would provide a temporary storage facility for run-off during storm conditions and then allow discharge into streams or watercourse at controlled levels of flow agreed with the National Rivers Authority.

3.2.3 The drainage system would also include provision of storage facility sites for use by the emergency services in the event of accidental spillage of hazardous liquids on the road. These facilities, consisting of underground tanks, would be linked to the highway drainage system and provided in the vicinity of the junctions at Troy Town, the A354 and the B3390.

3.3 LIGHTING

3.3.1 Consideration has been given to the requirements for lighting on the new roads. Lighting is proposed at the roundabout junction of the A35 Western Link with the southern slip-road of the Troy Town Interchange and at the two roundabouts which would form part of the A35/A354 grade separated junction to the north of Puddletown.

3.3.2 The A35 Western Link roundabout and its approaches would be lit by some fourteen 10 m high columns fitted with high pressure sodium lamps and low threshold increment (LTI) cut off lanterns.

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3.3.3 The two roundabouts and their approaches on the A35/A354 junction would be lit by some thirty one 10 m high columns fitted with high pressure sodium lamps and low threshold increment (LTI) cut off lanterns.

3.3.4 The existing A354, from its junction with the A35 to the Blue Vinney Public House, is currently lit by eight 10 m high columns fitted with low pressure sodium bulbs and medium threshold increment (MTI) semi cut off lanterns. Consideration will be given to extending the A354 lighting proposals on the south side of the route to connect up with this existing lighting.

3.4 LAYBYS

3.4.1 Four laybys would be provided for each of the eastbound and westbound carriageways spaced at between 2 km and 3.4 km intervals.

3.4.2 The laybys on the eastbound carriageway would be at the following locations:

<u>Chainage</u>	<u>Description</u>
1000	200 m east of Charminster Overbridge
4250	Adjacent to Footpath FP5
6200	100 m east of the course of the Old Roman Road
9000	Opposite existing track to Blackhill Dairy

3.4.3 The laybys on the westbound carriageway would be at the following locations:

<u>Chainage</u>	<u>Description</u>
900	100 m east of Charminster Overbridge
3200	100 m east of Home Farm Overbridge
6600	200 m west of Tolpuddle Ball
8800	200 m west of existing track to Blackhill Dairy

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3.5 TRAFFIC

3.5.1 The predicted assignment of traffic flows to the new road network are shown on Figures 2 and 3. The flows indicated are 24 hours Annual Average Daily Traffic (AADT) two way flows for 1995, the expected year of opening, based on low and high growth assumptions.

3.5.2 All through traffic is expected to transfer to the new road, this would remove between 90% and 95% of traffic on the existing A35 from Puddletown, Athelhampton, Burleston and Tolpuddle. It would also remove 85% of the A354 traffic from Puddletown.

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4.0 MITIGATION MEASURES

4.1 ROUTE SELECTION

4.1.1 Route selection and the design of the horizontal and vertical alignments are fundamental mitigation measures for minimizing any adverse effects of the proposed road. By selecting a route for the proposed A35 which passed to the north of the main settlements the higher limited impact on the landscape which could be reduced by various mitigation measures was considered against the greater noise and community severance effects of the alternative routes which could not be reduced.

4.1.2 Particular areas where measures have been taken to assist in mitigating the effects of the route are namely:

- a) At the western end a link included between the existing A35 and the published route to reduce severance on the length of A354 south of the published route.
- b) Amendments to Druce Lane diversion to reduce the length of river works and lessen the visual impact of the embankment.
- c) Earth mounding along the northern boundary of the route where it crosses Long Lane to reduce noise levels for cottages in Long Lane.
- d) In the vicinity of Bardolf Manor the route lowered to reduce visual impact.
- e) The height of the embankment across Devil's Brook lowered from 8 m to 2 m to avoid truncating the valley.
- f) Amendments to the form of the B3390 junction to reduce its visual impact.

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- g) Amendments to the horizontal and vertical alignments to avoid the avenue of lime trees leading to Roger's Hill Farm and two other sites of ecological interest.

4.2 PUBLIC RIGHTS OF WAY

- 4.2.1 All public rights of way affected by the route would be maintained by diversions.
- 4.2.2 Bridges would be provided for all bridleway diversions which cross the route and these would also be used for agricultural crossings.
- 4.2.3 One footpath FP5, would cross the route by the provision of stiles, steps and a crossing facility in the central reserve.
- 4.2.4 At the eastern end of the route bridleway BR1 and part of bridleway BR33 would be re-classified as a footpath.
- 4.2.5 Details of the proposed diversions are shown on Figures 6a and 6b.

4.3 AGRICULTURE

- 4.3.1 Of the thirteen farms affected by the proposed route, seven would suffer severance. The disruption to farming operations would be minimized by the provision bridges over or under the route which would serve as combined agricultural and public rights of way crossing points. Other types of accommodation works would be provided where these are feasible and can be justified.
- 4.3.2 Landtake would be minimized by the re-grading of some embankment slopes which, where possible, would be returned to agriculture.

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4.4 LANDSCAPE

4.4.1 The landscape proposals are shown in Figures 7a and 7b. These have been designed to complement the route selection and to mitigate adverse environmental effects by:

- a) Planting to both reflect and link in with the existing pattern of hedgerows, plantations and linear copses.
- b) Some re-grading and amenity moulding to assimilate the road into the existing landform.
- c) Conservation interest would be enhanced by establishing native flora in certain selected locations and where possible by encouraging wetland/marginal habitat within and adjacent to the soakaway and flood attenuation lagoons.

4.4.2 At the western end of the scheme, both the proposed route and the A35 Western Link are on embankments. To assimilate the roads into the landscape the embankment on the south side of the Western Link would be re-graded and returned to agriculture. The area between the roads would be infilled and receive additional planting thus effectively extending Troy Town Copse and reducing any impact of the roundabout and its lighting.

4.4.3 The route would enter a deep cutting in the hillside west of Puddletown creating a notch visible from both the watermeadows and to road users approaching from Dorchester. Additional excavation would be undertaken at the top of the cutting to marry the hillside into the cutting face and at the eastern end additional landtake would provide the opportunity for tree/shrub planting to restrict views along the cutting.

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- 4.4.4 The proposed route would cross the watermeadows north west of Puddletown on low embankment. The soakaway and flood attenuation lagoons on the south side of the route adjacent to Chine Hill Lane would provide the opportunity for extending the hedgerow network helping, in time, to screen moving traffic from properties in west Puddletown. The embankment slopes would be protected by a revetment of voided concrete blocks, the voids filled with local topsoil and seeded.
- 4.4.5 The diverted Druce Lane would be bounded by hedgerow planting to reflect and link with the existing hedgerow pattern. Additional planting and re-grading on the north side of Druce Lane Overbridge would reduce visual impact of the embankment. North of Northbrook the impact of the route is limited because of the deep cutting and this would be further reduced by planting along the cutting face. Earth mounding on both sides of the carriageway, where the route crosses Long Lane, would reduce noise levels and increase the effectiveness of the proposed screen planting.
- 4.4.6 At the junction of the proposed route with the A354 extensive planting and re-grading of the embankments on the south side would be undertaken to reduce the impact of the junction and its lighting on Northbrook and north Puddletown. The earth bunds surrounding the soakaway and flood attenuation lagoons would be planted to provide a screen between north Puddletown and the A354 junction whilst some off-site planting is proposed to supplement and reinforce the existing tree screen along the River Piddle.
- 4.4.7 South of Bardolf Manor the route would be on a low embankment and in order to screen moving traffic from the Manor, yet retain the extensive views enjoyed across the valley, some earth mounding on the north side of the route adjacent to the embankment would be undertaken and the land returned to the landowner. This part of the route would also be visible from the north of Puddletown and some additional tree/shrub planting is proposed on the south side of the route which would, in time, screen the moving traffic.

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- 4.4.8 Between Bardolf Manor and Devil's Brook the route would be in cutting and this, together with further planting to link in with the existing plantation, would screen the road. At Devil's Brook the route would pass through an area of willow carr, appropriate planting around the flood attenuation lagoon south of the route at Water Barn will reduce the impact of habitat loss. East of Devil's Brook a deep east-west cutting would be planted to link in with the Burleston Plantation; this cutting would not be highly visible.
- 4.4.9 To the east of Burleston the route would strike across the landform in a series of embankments and cuttings but these would be screened from Tolpuddle and Affpuddle by intervening high ground. Planting proposals would link roadside planting with north-south copses and at the Hill Barn and Tolpuddle Common bridge sites new copses would be created. To the north of Tolpuddle Ball the high embankment and deep cutting would be assimilated into the landscape by extending the woodland at Tolpuddle Ball into these areas.
- 4.4.10 The junction with the diverted B3390 and existing A35 to the east of Tolpuddle Ball would be located on the crest of a hill with ground falling away to Roger's Hill Farm to the north and Affpuddle to the south. The moderate impact of this junction when viewed from these two places would be reduced by re-grading embankment slopes together with planting proposals along side the existing A35 and the new route, the areas of re-graded land being returned to agriculture. Further planting would be undertaken between the slip-roads of the junction linking this with and forming a substantial extension to Tolpuddle Ball.

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4.4.11 Beyond Roger's Hill Farm the proposed route would follow the present A35, widening the existing road corridor on the south side. The northern embankment of the new route would be re-graded over the broken up existing road avoiding a small copse and an area of semi improved grassland. The copse would be extended up to the proposed route and the re-graded embankment slope covered in a mixture of local topsoil/subsoil to encourage the establishment of native flora. Hedgerow planting along the edge of the route would reflect the existing hedgerow pattern and form a link with the new planting along the Bere Regis Bypass.

4.4.12 The above proposals are explained in greater detail in the Landscape Report which is available for reference purposes and is on deposit at Council Office inspection points listed in Appendix A.

4.5 ECOLOGY

4.5.1 The ecological study undertaken recommends several general mitigation measures relating to sites of habitat importance identified in the study together with specific measures relating to the impacts on the watercourse.

4.5.2 The general mitigation measures to be adopted would be as follows:

- a) Both the District Councils and the County Council, as the local planning authorities, would be notified of the location of sites of habitat importance so that they could be taken into account when considering any applications made by the Contractor for tip sites.
- b) Temporary or permanent fencing would prevent unnecessary encroachment and damage into areas outside the route corridor. Where areas of significant importance lie close to the route corridor this fencing would be erected prior to the start of any works adjacent to these areas.

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- c) Imported rockfill would be specified to have a similar pH value to the local substrates.
- d) Ground water control measures to ensure the stability of the embankments across the watermeadows would be designed such as to not seriously affect the existing water regime.
- f) Storage of plant and materials within the site boundaries would not be permitted in ecologically sensitive areas.
- g) The impact on Badger ranges intersected by the route would be reduced by the use of Badger Fencing in conjunction with some of the proposed over or under bridges crossing the route.
- h) Specialist advice would be sought prior to the opening of the road on mitigation measures necessary outside the road corridor to discourage owls from the vicinity of the road.
- i) Certain of the verges, embankment and cutting slopes, together with other landscape areas would be used to create replacement habitat for those lost as a result of the route. Appropriate specifications for grass seed mixture would be incorporated in the contract after consultation with English Nature and Dorset County Council.

4.5.3 The specific mitigation measures relating to the impact on the watercourses would be as follows:

- a) The fish populations in the River Piddle and the Devil's Brook, with its associated flood channel, are worthy of active conservation and preservation. Although it must be accepted that the culverted sections along these watercourses will involve some loss of habitat it is the intention to construct the concrete inverts of the river culverts 500 mm below bed level to maintain the continuity of the river bed through the culverts and prevent any steps forming which would obstruct fishing movements upstream at spawning time.

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- b) Diverted lengths of watercourses would be constructed with habitat features necessary to re-create a satisfactory environment for the trout and the invertebrate fauna on which they feed.
 - c) Diverted watercourses would be either lined to maintain summer flows or be left unlined allowing ground water flows to augment the watercourse flows. Decisions on this would be undertaken in consultation with the National Rivers Authority.
 - d) Measures would be taken to prevent the pollution of aquifers and watercourses both during the construction phase and when the route is in operation.
- 4.5.4 The report on the 'Ecological Baseline and Impact Assessment of Published Route' is available for reference purposes and is on deposit at Council Office inspection points listed in Appendix A.
- 4.6 HERITAGE
- 4.6.1 The Grade II listed building at Stafford Park Farm, Northbrook would have its setting marginally affected by the A354 junction. Earth mounding, regrading of embankments together with tree and shrub planting would be introduced to reduce the visual intrusion. The Grade II listed building at the The Moor, Puddletown would also suffer significant visual intrusion and offsite planting by agreement along the rear of the building would be offered to reduce this impact.

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4.6.2 The route corridor passes within 90m of the northern boundary of the site of the deserted village of Bardolfeston, a Schedule Ancient Monument. As part of a recent Archaeological Survey the area between the village and the proposed road was investigated and the findings indicated that the village never extended north of the present earthworks which fall within the boundary of the Schedule Ancient Monument.

4.6.3 Further investigations are currently being undertaken at the four archaeological sites of the Roman Road, the new Roman Site east of Tolpuddle Ball, an area of land to the south of the A35 at Tolpuddle Ball and the new Medieval Site north of the A35 at the start of the Bere Regis Bypass. Opportunity will be given for rescue archaeology prior to the start of the earthworks if these are recommended as a result of these investigations.

4.7 NOISE

4.7.1 Details of the numbers of properties which would experience changes in noise levels are given in the Appraisal Framework contained in Section 5 of this document.

4.7.2 A noise attenuation bund would be formed by earth mounding along the northern boundary of the published route where it crosses Long Lane. This would reduce the noise level for the three cottages in Long Lane by up to 3 db(A) as well as providing some visual benefits.

4.7.3 A visual screening bund would be formed along the southern boundary of the route, opposite the noise bund. This would also have some mitigating effect on the noise levels for properties at Stafford Park Farm and 1 to 4 Northbrook.

4.7.4 Effects of construction noise are being investigated and insulation will be offered to those properties where it is considered significant noise levels would be experienced over a prolonged period.

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4.8 LIGHTING

- 4.8.1 The lighting proposals for the roundabout junction on the A35 Western Link and for the two roundabouts which form part of the A35/A354 grade separated junction to the north of Puddletown would be designed to minimize the impact of the lighting commensurate with road safety.
- 4.8.2 Proposals include the use of 10 m high columns as against the lower 8 m high columns in order to reduce the number required and to restrict the columns to one side only on the approach roads to the roundabouts.
- 4.8.3 High pressure sodium lamps which give a white light are proposed for their quality of light together with low threshold increment (LTI) cut off lanterns to minimize light spillage away from the road. Low pressure sodium lamps giving an orange light are currently in use on the existing A35 and A354 but in conservation areas it is Dorset County Council's aim to replace these with high pressure sodium lamps.
- 4.8.4 No other lighting is presently contemplated along the published route.

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5.0 DATA ON ENVIRONMENTAL EFFECTS (Appraisal Framework)

5.1 A summary of the environmental effects of the preferred scheme is provided in tabular form in this section. The format follows that of the appraisal framework specified in the Department of Transport's Manual of Environmental Appraisal. The frameworks summarize the overall effects of construction and operation of the preferred scheme. The frameworks also describe the implications of not constructing the scheme but carrying out a minor improvement of the A35/A354 junction within columns headed 'do-minimum'.

5.2 The summary of the environmental effects of the preferred scheme, as presented within the frameworks, has been derived from more detailed work comprising consultations with Statutory Authorities and other bodies, desk studies, fieldwork and computer modelling.

5.3 The frameworks are 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
- 6) Financial effects

5.4 The effects on travellers are considered in Group 1 which comprises an economic appraisal of the savings associated with the scheme and an estimate of the reduction in road traffic casualties as a result of the scheme. These are shown for both High and Low growth traffic forecasts which indicate the range of optimistic and pessimistic assumptions on growth in income and fuel prices. Since High and Low growth forecasts are regarded as equally possible outcomes the appraisal is carried out for both ends of the range. Also given are estimates of driver stress and quality of views from the road.

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- 5.5 Within Group 2, the 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, air quality, disruption during construction and loss of land or buildings.
- 5.6 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. This 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 'comments' column.
- 5.7 The degree to which the scheme complies with transport policies and with central and local governments' policies relating to land use and economic development is outlined in Group 5.
- 5.8 Group 6 considers the Net Present Value (NPV) of the scheme by balancing the scheme costs against the benefits derived within Group 1. This is shown for both the High and Low growth forecasts indicating the range of NPV. Groups 1 and 6 are considered only within the overall framework for the scheme, as financial benefits are dependent on the scheme in its entirety. The effects of the scheme on transport and development policies are also considered within the overall framework but not within the sub-framework.
- 5.9 Certain issues listed within Annex III of the European Community Directive on environmental assessment (85/337/EEC) have not been considered within the framework (such as effects of the scheme on climatic factors) as they are not significant. The effects on consequential development have not been considered either as these will be subject to the policies of the relevant Planning Authorities.



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ASSESSMENT FRAMEWORK

GROUP 1 : Travellers			Published Route		Do Minimum	Comments
Sub Group	Effects	Units	High	Low		
Car users	Time savings	£m (PVB)	18.48	0.60	0	<p>Notes A, B and C apply to the first nine lines:</p> <p>A. Each column shows the improvements of the published 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 1986 prices at 8% pa.</p> <p>C. It is assumed that national average figures for vehicle occupancy and for accident rates and costs apply.</p>
	Vehicle operating cost savings	£m (PVB)	-0.87	1.09	0	
Users of Light Goods Vehicles	Time savings	£m (PVB)	3.33	1.77	0	
	Vehicle operating cost savings	£m (PVB)	-0.11	0.13	0	
Users of Heavy Goods Vehicles	Time savings	£m (PVB)	2.30	1.26	0	
	Vehicle operating cost savings	£m (PVB)	-0.05	0.11	0	
Bus Operators and Passengers	Time savings	£m (PVB)	0.70	0.45	0	<p>The figures indicate the probable total reduction in casualties over the whole of the 30 year assessment period if the national average rates and distribution between groups apply. They take no account of the safety implications of the detailed design of the new route</p>
	Vehicle operating cost savings	£m (PVB)	0.01	0.01	0	
All Vehicle Travellers	Value of accident savings	£m (PVB)	8.97	6.03	0	
	Reduction in casualties					
	Fatal	number	29	24	0	
	Serious	number	255	211	0	
	Slight	number	728	605	0	
Driver Stress			Low		High	
View from Road			Mainly agricultural and generally restricted but with intermittent views at Devil's Brook, north of Tolpuddle and east of Roger's Hill Farm. Some open views at River Piddle Watermeadows and north-east of Hill Barn Overbridge		Mainly agricultural but through the residential areas in Puddletown and Tolpuddle the views are restricted. Views elsewhere are intermittent except between Burtoston and Tolpuddle and Tolpuddle to Bere Regis where they are open	
Traffic delays during construction			Negligible		Significant	

GROUP 1 : Travellers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Cyclists and Pedestrians	Change in amenity and safety		Transfer of through traffic to the Published route will give substantial benefits in terms of safety, relief from community severance, reduced air pollution and lower noise levels	Increased traffic growth will reduce amenity along existing A35, increase the danger of accidents to cyclists and pedestrians, increase air pollution and raise noise levels	Published route will remove between 90% and 95% of A35 traffic from Puddletown, Athelhampton, Burlleston and Tolpuddle. It will also remove 85% of the A354 traffic from Puddletown. Long distance as well as local cyclists will be able to use existing A35 after de-trunking

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GROUP 2 : Occupiers

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Residential	Properties Demolished	Number	2	0	Properties demolished would be the Rogers Hill Cottages which abut the existing A35 Trunk Road. The cost of property acquisition and demolition is included in Group 6.
	Noise	Number of houses experiencing increase of:			The changes in noise are the difference between the high growth traffic forecast for each option for 2010 and the existing levels. The units are dB (A) L10 18 hours, 6.00 am - midnight. No properties are eligible for double glazing under the Noise Insulation Regulation 1975 as amended by the Noise Insulation (Amendment) Regulations (1988)
		More than 15dB (A) L10	10	0	
		10-15 dB	14	0	
		5-10 dB	5	0	
		3-5 dB	3	0	
		Number of houses experiencing decrease of :			
		More than 15 dB (A) L10	0	0	
		10-15 dB	164	0	
		5-10 dB	55	0	
		3-5 dB	70	0	
	Visual Obstruction	Number of properties within 300 m of centre line subject to:			Visual obstruction and visual intrusion assessments have been made at the time of opening of the route and do not take into account any tree screening proposals. Details of affected properties are given in the Landscape Report which is on deposit at the addresses given in Appendix A
		High	0	No change	
		Moderate	10	No change	
		Slight	21	No change	
	Visual Intrusion		High intrusion to 22 properties Moderate intrusion to 7 properties Slight intrusion to 28 properties	No change No change No change	
	Severance				
	a. Relief to existing severance		Substantial improvement	No improvement	The traffic growth predicted will increase severance between communities in the Do Minimum case
	b. Imposition of new severance		Moderate severance of 3 cottages in Long Lane	None	

GROUP 2 : Occupiers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Residential (continued)	Air Quality	CO concentration parts per million (ppm)	The annual average peak hour concentrations in any of the first fifteen years after opening are predicted to be less than 4 ppm at all properties adjacent to the new road and the existing A35	Peak hour concentrations at 18 properties in Puddletown are predicted to exceed 4 ppm by 2001. This number will rise to 27 properties in Puddletown and 32 properties in Tolpuddle by the year 2010	An annual average peak hour concentration of 4 ppm or more indicates that an air pollution problem exists. Predicted concentrations have been calculated using high growth traffic figures
	Disruption during construction		37 houses within 100 m of site	None	
Industrial Premises	No industrial premises affected				
Commercial Premises					
a. Office Buildings	Noise Increase	Number subject to increase of more than 5 dB (A) L10	0	0	
	Noise decrease	Number subject to decrease of more than 5 dB (A) L10	2	0	
	Disruption during construction		None	None	

GROUP 2 : Occupiers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Commercial Premises (continued)					
b. Shops	Noise increase	Number subject to increase of more than 5 dB (A) L10	0	0	
	Noise decrease	Number subject to decrease of more than 5 dB (A) L10	5	0	
Severance					
a. Relief to existing severance			Substantial Improvement	Increased traffic will worsen existing severance	
b. Imposition of new severance			None	None	
Air Quality		CO concentration parts per million (ppm)	Peak hour concentrations in any of the first 15 years after opening are predicted to be less than 4 ppm for all shops on the existing A35	2 shops on the A35 are predicted to be exposed to peak hour concentrations in excess of 4 ppm by the year 2001. This number will rise to 4 No. by the year 2010	Predicted concentrations have been calculated using high growth traffic figures
Disruption during construction			None	2 Shops within 100 m of site	

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GROUP 2 : Occupiers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Comercial Premises (continued)					
c. Public Houses, and Market Garden Centre	Noise increase	Number subject to increase of more than 5 dB (A) L10	0	0	
	Noise decrease	Number subject to decrease of more than 5 dB (A) L10	4	0	
	Visual Intrusion		Slight intrusion to 1 property	No change	Property affected is the Blue Vinney Public House
	Severance				
	a. Relief to existing severance		Substantial improvement	Increased traffic will worsen existing severance	
	b. Imposition of new severance		None	None	
	Air Quality	CO concentration parts per million (ppm)	Peak hour concentrations in any of the first 15 years after opening are predicted to be less than 4 ppm for the Prince of Wales public house	Prince of Wales public house is predicted to be exposed to peak hour concentrations in excess of 4 ppm by the year 2001	Predicted concentrations have been calculated using high growth traffic figures
	Disruption during construction		None	None	

GROUP 2 : Occupiers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Commercial Premises (continued)					
d. Garages and Service Stations	Noise increase	Number subject to increase of more than 5 dB (A)L10	0	0	
	Noise decrease	Number subject to decrease of more than 5 dB (A)L10	3	0	
	Severance				
	a. Relief to existing severance		Substantial improvement	Increase in traffic will worsen existing severance	
	b. Imposition of new severance		None	None	
Air Quality		CO concentration parts per million (ppm)	Peak hour concentrations in any of the first 15 years after opening are predicted to be less than 4ppm for the garage on the existing A35	The garage on the A35 in Puddletown is predicted to be exposed to peak hour concentrations in excess of 4 ppm by the year 2001	Predicted concentrations have been calculated using high growth traffic figures
Disruption during construction			None	None	

GROUP 2 : Occupiers (continued)

Sub Group	Effects	Units	Published Route	Do Minimum	Comments
Schools					
Puddletown Voluntary Controlled First School (99 pupils 1990)	Noise	dB (A) L10	10-15 dB (A) L10 reduction	0-3 dB (a) L10 increase	
	Severance				
	a. Relief to existing severance		Substantial improvement	Increased in traffic will worsen existing severance	
	b. Imposition of new severance		None	None	
	Disruption during construction		None	None	
Farming		Number of Farms affected by landtake/ severance	13	0	Of the thirteen farms affected by the route three are considered to be seriously affected, four significantly and six slightly. A total of seven farms will suffer severance, on three of these the area of land separated from the main holding will be relatively small and on one other there is no land loss. An Agricultural Report is available for inspection and is on deposit at the addresses given in Appendix A
	Landtake	Hectares of land			
		Grade 1	4.20	0	
		Grade 2	17.25	0	
		Grade 3a	22.46	0	
		Grade 3b	24.50	0	
		Grade 4	0.38	0	
		Woodland	1.39	0	Based on MAFF Agricultural Land Classification Survey (1:10,000) Compensation included in Group 6
Open Space					
a. Sports Ground adjacent to A35 Puddletown	Landtake	Hectares	0	0	Effects on users appears in Group 3

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Group 3 : Users of Facilities

Sub Group : Users of:	Effects	Published Route	Do Minimum	Comments
a) Shops in Puddletown and Tolpuddle	Reduction of vehicle/pedestrian conflict	Significant reduction of traffic in Puddletown and Tolpuddle	Existing vehicle/pedestrian conflict will increase with traffic growth	Substantial benefits to residents of these two villages
b) Sports Ground	Reduction of amenity from visual intrusion	Slight intrusion	No effect	Views taken from the pavilion
c) South Dorset Hunt (160 members in 1989-90)	Severance	Moderate	No effect	Hunt in area between 1 September and 1 March on approximately 6 days. Average turnout 40 - 50 riders
d) Bardolifston Medieval Village Site	a. Noise	i) 10-15 dB (A) L10 increase at nearest point of the site to the route.	No effect	The site of the Deserted Medieval Village of Bardolifston is a Scheduled Ancient Monument. Access to the village is by bridleway BR9 which will remain. The published route passes to the north of the site with a minimum distance of 90 m between their respective boundaries together with its formal gardens and grounds
		ii) 5-10 dB (A) L(10) increase in the centre of the site	No effect	
	b. Visual intrusion	Slight intrusion at the western end of the site	No effect	
	c. Severance	None	No effect	
e) Athelhampton Hall	a. Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	Athelhampton Hall together with its formal gardens and grounds is a Grade I listed building. Its gardens are also in English Heritage's 'Register of Parks and Gardens of Special Historic Interest'
f) Tolpuddle Martyrs Cottage Museum	a. Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	
	b. Severance from layby used for parking	Substantial Improvement	No change	

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Group 3 : Users of Facilities (continued)

Sub Group : Users of:	Effects	Published Route	Do Minimum	Comments
g) Puddletown Library and Village Hall (Used by average of 112 people each week in 1990)	a) Reduction of vehicle/ pedestrian conflict	Significant reduction of traffic in Puddletown	Hazard increases with traffic growth	Predicted concentrations have been calculated using high growth traffic figures
	b) Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	
	c) Air Quality	Peak hour concentrations are predicted not to exceed 4 ppm by the year 2010	Peak hour concentrations are predicted to exceed 4 ppm by the year 2010	
h) Tolpuddle Village Hall	a) Reduction of vehicle/ pedestrian conflict	Significant reduction of traffic in Tolpuddle	Hazard increases with traffic growth	
	b) Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	
i) St John's Church Tolpuddle	a) Reduction of vehicle/ pedestrian conflict	Significant reduction of traffic in Tolpuddle	Hazard increases with traffic growth	
	b) Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	
j) Methodist Chapel Tolpuddle	a) Reduction of vehicle/ pedestrian conflict	Significant reduction of traffic in Tolpuddle	Hazard increases with traffic growth	
	b) Noise	10-15 dB (A) L10 reduction	0-3 dB (A) L10 increase	
k) Bridleways and footpaths	a) Severance	Slight to bridleway BR26 and BR1 Slight to footpath FP5 Moderate to bridleway BR6	No change	
	b) Disruption during construction	Temporary diversions to all bridleways and footpaths affected by the route	No change	
	c) Change of use	Bridleway BR1 (Turnerspuddle CP) and 100 m of Bridleway BR33 (Bere Regis CP) to be re-designed as a Public Footpath	No change	

Group 4 : Policies for conserving and enhancing the area

Policy	Authority	Interest	Published Route	Do Minimum	Comments
a) To maintain and enhance the quality and distinctive character of the landscape	Dorset County Council	The effect on the Area of Great Landscape Value (AGLV)	The route crosses the AGLV between Burleston and Rogers Hill Farm.	No effect	Route designed to be screened from Tolpuddle and Affpuddle by intervening high ground. Landscape proposals designed to integrate route into surrounding area
b) To protect valley areas of historical and wildlife value	Dorset County Council West Dorset District Council National Rivers Authority Dorset Trust for Nature Conservation	The effects on the River Piddle, the Devil's Brook and their associated watermeadows	The route passes through the River Piddle and Devil's Brook valleys on low level embankments which would result in some severance and habitat loss. The River Piddle would be diverted over a 220 m length, the Devil's Brook and its flood channel would each be diverted over 80 m lengths	No effect	Measures will be taken to minimise impact on hydrological regime of watermeadows. Length of diversions minimised and designed to recreate habitat features lost. The impact on the main area of operating watermeadows at Devil's Brook, which is also an area of significant importance for wintering wildfowl, is unlikely to be high
c) To protect areas of historical woodlands and other woodland features of nature conservation importance	English Nature Dorset County Council West Dorset District Council Purbeck District Council Dorset Trust for Nature Conservation	The effect on the following: 1) Deciduous Woodland adjacent to A354 north of Puddletown	One of the A354 junction sliproads would remove some mature trees and woodland habitat at the southern end of the woodland	No effect	Woodlands are considered to be of local importance but impact of the road not regarded as having high ecological significance
		2) Willow Carr Devil's Brook	The low level embankment across Devil's Brook valley would result in some habitat loss and severance	No effect	Locally important woodlands. Of all wooded areas affected this is considered the most natural and provides the best wildlife habitat but impact of road would not be highly significant
		3) Tolpuddle Ball	Route passes to the north of Tolpuddle Ball within 2 m of the area defined by a Tree Preservation Order	No effect	Tolpuddle Ball protected by a Tree Preservation Order
		4) Avenue of lime Trees at Roger's Hill Farm	Route passes to the south of the lime trees within 1 m of the area defined by a Tree Preservation Order	No effect	Lime trees protected by a Tree Preservation Order

Group 4 : Policies for conserving and enhancing the area (continued)

Policy	Authority	Interest	Published Route	Do Minimum	Comments
d) To protect Historical Parks and Gardens of Special Interest	Department of Environment English Heritage Dorset County Council West Dorset District Council	To protect the registered gardens of Athelhampton Hall	Between 90% and 95% of the traffic on the existing A35 would transfer to the route	No effect	There would be significant improvement to the enjoyment of the gardens
e) Development will not normally be permitted within the flood plain of any river or water course	National Rivers Authority West Dorset District Council	The effect on the: River Piddle and Devil's Brook Watermeadows	The route crosses both watermeadows on low level embankments. Culvert sizes and locations, together with side road alignments have been agreed with NRA to maintain existing flood characteristics upto the 100 year flood event	No effect	Run-off into existing water courses will be controlled by flood lagoons to discharge levels agreed by NRA
f) To control water pollution	National Rivers Authority	To safeguard water quality within inland waters and ground waters	Short terms impacts during construction to be minimised by the use of settlement lagoons. Potential long term impacts would be overcome by mitigation measures.	No effect	Surface water run-off from the road will pass through oil interceptors before discharging into soakaway lagoons or flood attenuation ponds
g) To protect sites of Archaeological and Historic interest	Department of Environment English Heritage Dorset County Council West Dorset District Council Purbeck District Council	The effect on the following: 1) Site of the deserted medieval village of Bardolfeston, a Scheduled Ancient Monument	The route passes through the field adjoining the northern boundary of the site. There would be no direct physical impact but some increase in noise level and slight visual intrusion would occur at the site	No effect	An Archaeological Survey recently undertaken along the corridor of the route indicates that the village never extended further north than the existing northern boundary of the Scheduled Ancient Monument
		2) Four sites of Archaeological and Historic interest identified by recent survey	Sites lie within the area affected by the route	No effect	Further survey work and trial excavations being undertaken to ascertain the importance of these sites and the need for possible rescue archaeology by others

Group 4 : Policies for conserving and enhancing the area (continued)

Policy	Authority	Interest	Published Route	Do Minimum	Comments
h) To protect listed buildings	Department of Environment English Heritage Dorset County Council West Dorset District Council	The effect on the listed buildings within the Conservation Areas of Puddletown and Tolpuddle together with the listed buildings at Athelhampton, Burleston and Northbrook	Number of listed buildings within 300 m of the centre line: Grade I 0 Grade II* 0 Grade II 2	Number of listed buildings within 300 m of the centre line: Grade I 4 Grade II* 9 Grade II 59	The 2 No. Grade II listed buildings within 300 m of the centre line of the route are The Moor, Puddletown and Stafford Park Farm, Northbrook
i) To protect and enhance Conservation Areas	West Dorset District Council	The effect on the Conservation Areas at Puddletown and Tolpuddle	The route will remove the majority of traffic from the existing A35 which will result in a significant enhancement to the character and appearance of both Conservation Areas	No effect	The oldest part of Puddletown and virtually all of Tolpuddle are designated Conservation Areas because of their historic and architectural interest
j) To maintain and develop bridleways and footpaths	Dorset County Council	The effect on any bridleways or footpaths affected by the route	Bridleway BR1 (Turnerspuddle CP) and part of Bridleway BR33 (Bere Regis CP) to be re-designated a Public Footpath. All other bridleways and footpaths maintained by diversions	No effect	Bridleway networks on either side of the A35 between the B3390 and Bere Regis Bypass will be linked by Bridleway BR10 passing under the route. The networks are presently linked by BR10 which is bisected by the A35 and this necessitates users crossing the trunk road

Group 5 : Transport, development and economic policies

Policy	Authority	Interest	Published Route	Do Minimum	Comments
Transport					
To Improve the Trunk Road Network	Department of Transport	To assist economic growth	Significant Improvement in journey times	Increase in delays with growth in traffic	Trunk Roads, England Into the 1990's (1990)
		To Improve the environment by removing through traffic from unsuitable roads in towns and villages	Through traffic on the A35 between Puddletown and Tolpuddle and on the A354 through Puddletown will be removed	Increase in traffic with resultant detriment of the environment in the settlements between Puddletown and Tolpuddle	
		To enhance road safety	Significant reduction in the number of accidents	Increase in number of accidents with growth in traffic	
Development					
To permit development within defined Development Boundaries	West Dorset District Council	The effect on future development in Puddletown	No effect	Will affect access arrangements and two car parking spaces on the proposed development of the King's Arms site, Puddletown	Planning Permission granted in December 1990 for twenty one residential properties on the King's Arms site, Puddletown

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GROUP 6 : Financial Effects

Sub Group	Interest	Units	Published Route		Do Minimum	Comments
Department of Transport	Construction costs	£m (PVC)	13.18		0.04	Construction costs include preparation and supervision costs
	Land costs	£m (PVC)	0.71		0.01	Costs are discounted from years of expected expenditure to 1988 at 1988 prices PVC = Present Value of Costs
	Maintenance costs	£m (PVC)	0.69		0.31	Increase maintenance costs due to additional length of road
	Net Total costs	£m (PVC)	14.58		0.36	
Total quantified monetary benefits above do minimum		£m (PVB)	High	Low		
			32.76	18.79		
Net present value compared to do minimum		£m (NPV)	18.54	4.57	NPV = Net Present Value	

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ENVIRONMENTAL STATEMENT

6.0 ALTERNATIVES CONSIDERED

- 6.1 Three routes were put forward at Public Consultation held in 1988 and these are shown on Figure 5. These were the Red Route north of Puddletown and Tolpuddle, the Orange Route south of Puddletown and Tolpuddle and the Purple Route which followed the Orange Route south of Puddletown before swinging north to follow the line of the Red Route north of Tolpuddle. Each of the routes were exhibited as a dual two lane all purpose carriageway with grade separated junctions.
- 6.2 Of the three routes put forward the Purple Route was considered to have the least impact on the landscape, the Red and Orange Routes having a higher impact at their western and eastern ends respectively. The Red Route affected one Area of Great Landscape Value whilst the Purple and Orange Routes affected two Areas of Great Landscape Value. The Orange Route also passed through a conservation area based on Affpuddle.
- 6.3 An Ecological Report of the Alternatives indicated that the Red Route affected four of the nine more ecologically important sites whilst the Orange and Purple Routes affected five sites. The overall conclusion of the report was that there was little difference in impacts on the ecology between the alternatives.
- 6.4 Both the Purple and Orange Routes would avoid the noise impact of the Red Route to the 10 properties in the vicinity of Long Lane but would create a noise impact to over 30 properties in White Hill and Butt Close on the southern edge of Puddletown. More importantly both the Purple and Orange Routes would leave the A354 traffic on its existing route through Puddletown. The Red Route, by intercepting the A354 north of Puddletown, would remove 85% of traffic on this road which would otherwise pass through Puddletown and in so doing would overcome significant noise and severance problems.

ENVIRONMENTAL STATEMENT

6.5 As a result of the Public Consultation a number of members of the public proposed modifications to the alternative routes of which two exhibited potential for further investigation, these were as follows:

- a) A bypass link from the A354 to the A35 west of Puddletown in conjunction with the Purple and Orange Routes. A study undertaken concluded there was no economic benefit in providing this link and this would also result in two River Piddle watermeadow crossings.
- b) A link from A35 west of Puddletown to the grade separated junction at the eastern end of the Yellowham Hill Improvement. A study undertaken concluded that this had an economic benefit and would further reduce traffic flows on the A354. This modification has been included in the Published Route.

ENVIRONMENTAL STATEMENT

7.0 CHOICE OF PUBLISHED SCHEME

- 7.1 At Public Consultation 97% of the response came from local residents. The Published Route approximates closely to the Red Route which was supported by 84% of individual respondents. The Purple and Orange Routes were supported by 12% and 3% respectively with 1% supporting none of the routes.

The County, District and Parish Councils all preferred the Published Route. Of the other organizations and statutory undertakers consulted which totalled 57, 19 replied and of these 8 stated a preference. The majority of those stating a preference were in favour of the Purple Route.

- 7.2 The Published Route would remove all of the A354 through traffic from Puddletown, neither the Purple nor Orange Routes would relieve Puddletown of this traffic.

- 7.3 On environmental grounds the choice lay between the higher impact on the landscape that would occur at the western end of the Published Route against the noise and severance disadvantages created by traffic remaining on the A354 through Puddletown as a result of the alternative routes. This impact on the landscape could be reduced by mitigation measures whereas the noise and severance disadvantages could not be reduced. In terms of ecological impact, there was little difference between the routes.

- 7.4 The Published Route was the most expensive but gave the greatest economic return with the highest Net Present Value (NPV) of the alternatives.

Department of Transport
South West Construction Programme Division
Tollgate House
Houlton Street
Bristol
BS9 9DJ

MAY 1991

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ENVIRONMENTAL STATEMENT

8.0 APPENDICES

8.1 APPENDIX A - Deposit Address for Supplementary Reports

8.1.1 The Landscape Report, The Agricultural Report, The Archaeological Report and The Ecological Baseline and Impact Assessment of Published Route Report are all on deposit at the following Council Offices and may be inspected free of charge at all reasonable hours from 31 May 1991 until 2 September 1991:

- a) Dorset County Council
County Hall
Dorchester
Dorset
DT1 1XJ
- b) West Dorset District Council
58-60 High West Road
Dorchester
Dorset
DT1 1UZ
- c) Purbeck District Council
Westport House
Wareham
Dorset
BH20 4PP

ENVIRONMENTAL STATEMENT

8.2 APPENDIX B - Figures

Figure 1 Location Plan

Figure 2 Predicted re-assignment of Traffic Flows on Road Network in Year of Opening (1995) - Low Growth.

Figure 3 Predicted re-assignment of Traffic Flows on Road Network in Year of Opening (1995) - High Growth

Figure 4a A35 : Existing Road Network, Sheet 1

4b A35 : Existing Road Network, Sheet 2

Figure 5 Alternative Routes at Public Consultation showing areas of Especial Environmental Sensitivity

Figure 6a Published Route, Sheet 1

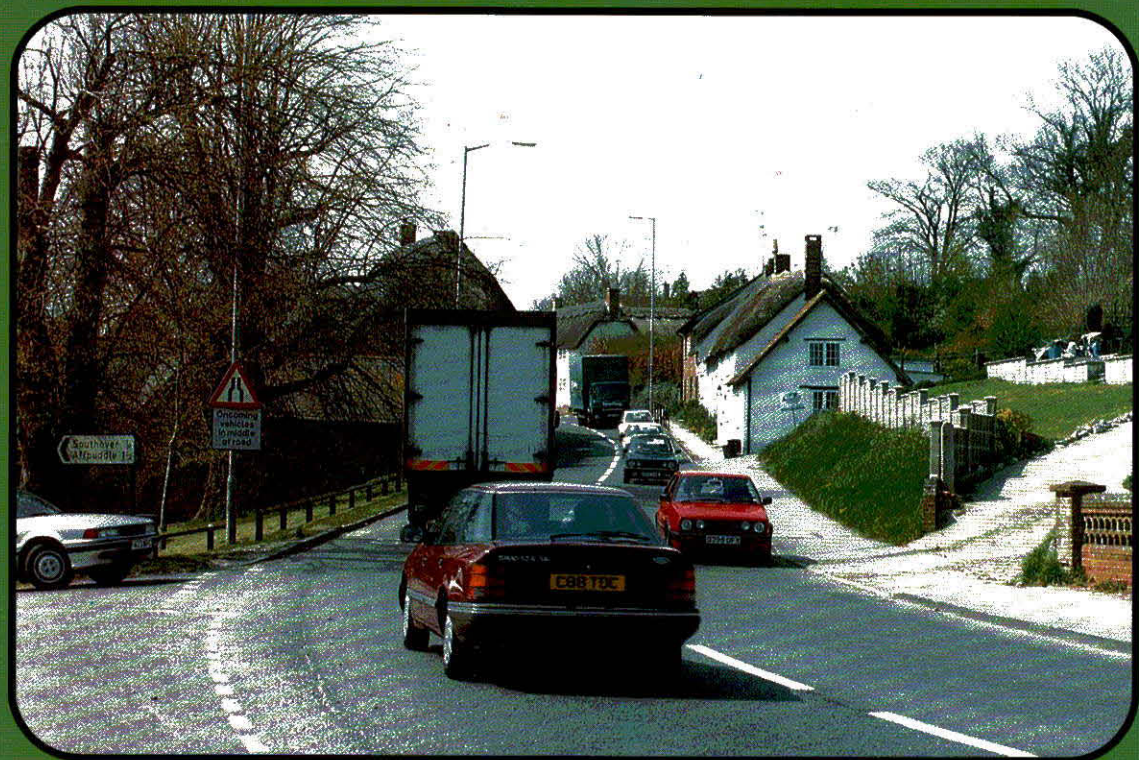
6b Published Route, Sheet 2

Figure 7a Mitigation Measures, Sheet 1

7b Mitigation Measures, Sheet 2



The A35/A354 Junction in Puddletown



The A35 Trunk Road through Tolpuddle

FURTHER INFORMATION

The full Environmental Statement may be inspected at the addresses shown below:

Department of Transport 2 Marsham Street London SW1P 3EB	
Department of Transport South West Construction Programme Division Room 402 Tollgate House Houlton Street Bristol BS2 9DJ	Department of Transport South West Construction Programme Division Exeter Office Falcon Road Sowton Industrial Estate Exeter EX2 7LB
Dorset County Council County Hall Dorchester Dorset	
West Dorset District Council 58/60 High Street West Dorchester Dorset	Purbeck District Council Westport House Wareham Dorset
Puddletown Library High Street Puddletown Dorset	Beachcote 1 The Green Tolpuddle Dorset

A public Exhibition of the proposals will be held at:

The Village Hall, Puddletown.	Thursday 6 June 1991 12a.m. - 8p.m.
	Friday 7 June 1991 10a.m. - 4p.m.
The Village Hall, Tolpuddle.	Saturday 8 June 1991 10a.m. - 4p.m.

Representatives of the Department of Transport and their Consultants, Frank Graham Consulting Engineers will be present to answer questions. Admission is Free.



This project is being designed for the Department of Transport by Frank Graham Consulting Engineers Limited.



THE DEPARTMENT
OF TRANSPORT

A35 TOLPUDDLE TO
PUDDLETOWN BYPASS

ENVIRONMENTAL STATEMENT

Non-Technical Summary

The Department of Transport has published draft Orders for the A35 Tolpuddle to Puddletown Bypass. This leaflet describes the proposed scheme and summarises its environmental effects.

May 1991

INTRODUCTION

The Secretary of State for Transport has published an Environmental Statement which provides an assessment of the environmental effects of the proposal to provide a bypass of Puddletown and Tolpuddle on the A35 in Dorset.

The Environmental Statement has been prepared in accordance with Section 105A of the Highways Act 1980 [as added to by the Highways (Assessment of Environmental Effects) Regulations 1988]. This document is a non-technical summary of that Statement.

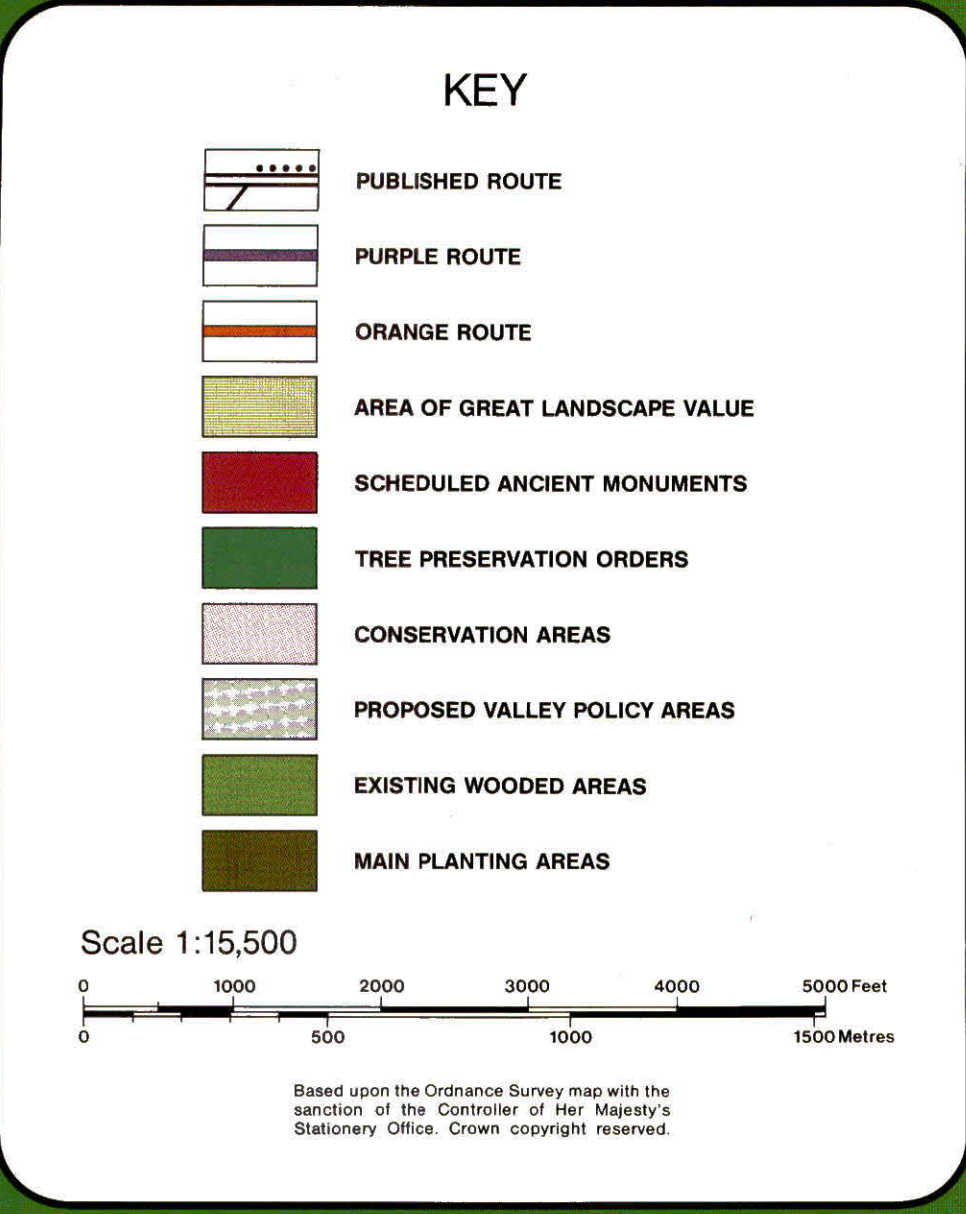
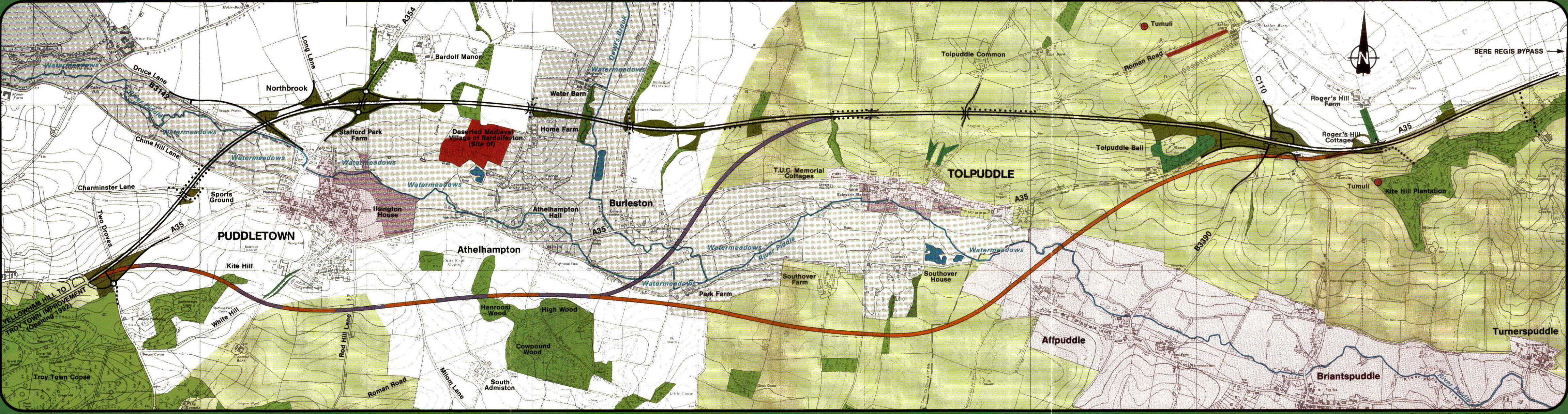
The Tolpuddle to Puddletown Bypass is one of a number of improvements to the A31/A35 Trunk Road (Folkstone to Honiton) which is the main east-west route along the south coast. Subject to satisfactory progress through the statutory procedures and availability of funds the construction of the bypass is expected to start in 1993 and take two years to complete.

SITE DESCRIPTION

The main areas of population within the vicinity of the bypass are concentrated in the villages of Puddletown and Tolpuddle which straddle the A35 and are located some 7km and 10.5 km east of Dorchester respectively. Between the two villages are the hamlets of Athelhampton and Burleston which also lie on the A35. The A35 Trunk Road provides a local link between the settlements and to Dorchester as well as providing for through traffic. The A354 runs north-east from its junction with the A35 in the centre of Puddletown to Blandford Forum and beyond.

The landform is predominately an open valley occupied by the River Piddle and its associated watermeadows which in this area are considered to be of significant local conservation value. North of the River Piddle valley the ground rises onto an open rolling plateau which is cut by a number of north-south valleys. The most pronounced of these is to the east of Athelhampton formed by the Devil's Brook which joins the main River Piddle valley just east of Burleston. The watermeadows associated with the Devil's Brook are operated in the traditional manner and the area is also of significant local conservation value. The land around the settlements is mostly farmland interspersed with copses and other wooded areas, some of which are protected by Tree Preservation Orders. Areas of Great Landscape Value lie around Tolpuddle and to the south of Puddletown.

The oldest part of Puddletown and virtually all of Tolpuddle have been designated Conservation Areas reflecting the special historic and architectural interest attached to these settlements. There are many listed buildings within these areas as well as a number of others at Athelhampton, Burleston and Northbrook. Four Scheduled Ancient Monuments exist in the same area, the most important of these being the Site of the Deserted Medieval Village of Bardolfeston to the north-west of Athelhampton.



THE PUBLISHED SCHEME

The Published Route would be a dual two lane carriageway and commence at the new major junction, near Two Drovers, which forms part of the Yellowham Hill to Troy Town Improvement currently under construction. It would run in a north-easterly direction leaving the existing A35 to the south, with a link provided from the existing A35 to the new junction near Two Drovers.

North of the existing A35 the route would descend through a deep cutting and cross the River Piddle watermeadows north-west of Puddletown on a low level embankment. To the north of Northbrook it would turn east in a deep cutting before passing under the A354 where a major junction would be formed. The route would then rise in an easterly direction onto a low embankment south of Bardolf Manor before descending through a deep cutting, between Home Farm and Water Barn, to a low level embankment across the Devil's Brook watermeadows, north of Burleston.

From the watermeadows the route would continue in an easterly direction rising through a deep cutting onto a high embankment and then into another deep cutting before reaching the high ground to the north of Tolpuddle. Still running east the route would then level out crossing the landform in a series of low embankments and shallow cuttings before passing onto a high embankment to the north of Tolpuddle Ball.

Continuing east from Tolpuddle Ball the route would descend through a deep cutting onto a high embankment where a major junction would be formed with the B3390 and C110 to Milborne St. Andrew. In the vicinity of Roger's Hill Cottages the route would join and follow the line of the existing A35 passing into a cutting before connecting with the existing section of dual carriageway at the western end of the Bere Regis Bypass.

All existing public rights of way would be conserved or diverted and with the exception of one footpath, would be bridged over or under the new route.

MITIGATION MEASURES

The Preferred Route announced in 1989 was chosen to minimize the adverse effect on the environment and has since been modified to further reduce the visual impact of embankments, to lessen the effect on watermeadows and to avoid, where possible, environmentally sensitive areas.

Landscape proposals comprising tree, shrub and hedgerow planting together with some earth mounding would be used to help blend the road into the surroundings and assist in creating replacement semi-natural habitats. Some additional land would be required to link in the highway planting with existing copses and plantations. In other areas not adjacent to the road, landowners agreement would be sought to reinforce existing wooded areas to reduce the impact of the road. Earth mounding would also be provided in certain areas to screen the road and reduce traffic noise.

The effect of severance on farm holdings has been reduced by combining agricultural and bridleyway crossings at various locations along the route.

Lengths of diverted watercourses have been minimized and would be designed to recreate habitat features similar to those lost. Culverts would also be designed to ensure no restriction to fish movements upstream, including spawning migration. To avoid pollution of the watercourses and aquifers, surface water from the road will pass through oil interceptors before being collected in soakaway or storage areas, these may then develop into areas of additional wetland habitat.

Areas of archaeological interest which would be affected by the route have been identified and are the subject of further investigations.

EFFECT OF THE NEW ROAD ON THE ENVIRONMENT

The existing traffic flows on the generally sub-standard section of the A35 through the settlements of Puddletown, Athelhampton, Burleston and Tolpuddle combined with the A35/A354 junction in Puddletown are the main cause of serious disruption, delays, noise and accidents in this area.

On completion the proposed bypass would remove between 90% and 95% of A35 traffic from these settlements together with 85% of A354 traffic from Puddletown. This would result in a significant reduction of noise level for the inhabitants of over 300 properties in the vicinity of the A35 and A354. The general quality of life in all the settlements would be greatly enhanced with major benefits in terms of improved road safety, reduced air pollution and relief from community severance.

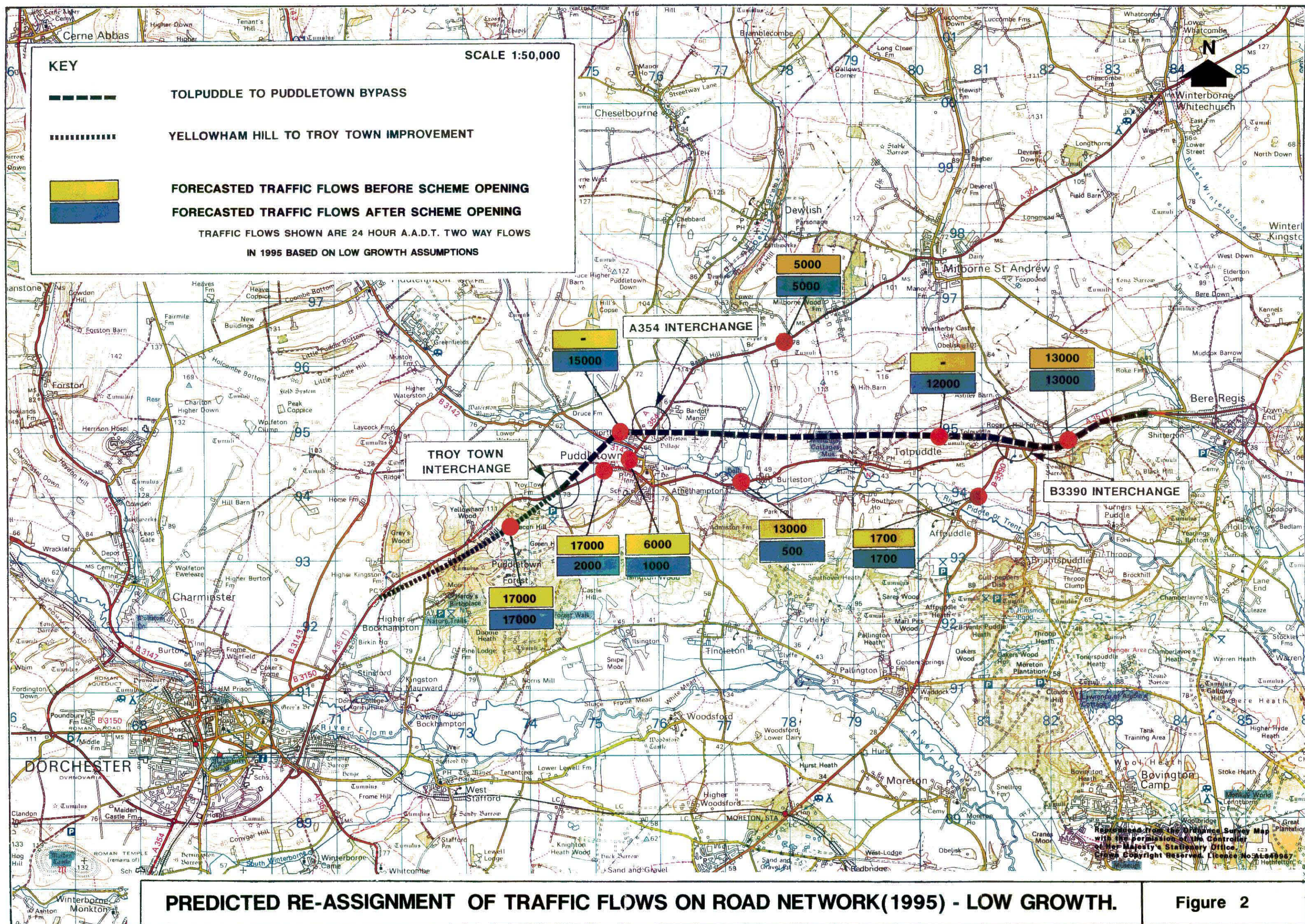
As a consequence of the new road 32 properties would experience an appreciable increase in noise level, although not to the levels presently experienced by properties close to the existing A35 and 57 properties would suffer a degree of visual intrusion. Since the road passes through mainly agricultural land some severance to a number of farm holdings is unavoidable. None of the Scheduled Ancient Monuments are physically affected by the road although some increase in noise level and slight visual intrusion would result at the Site of the Deserter Medieval Village of Bardolfeston.

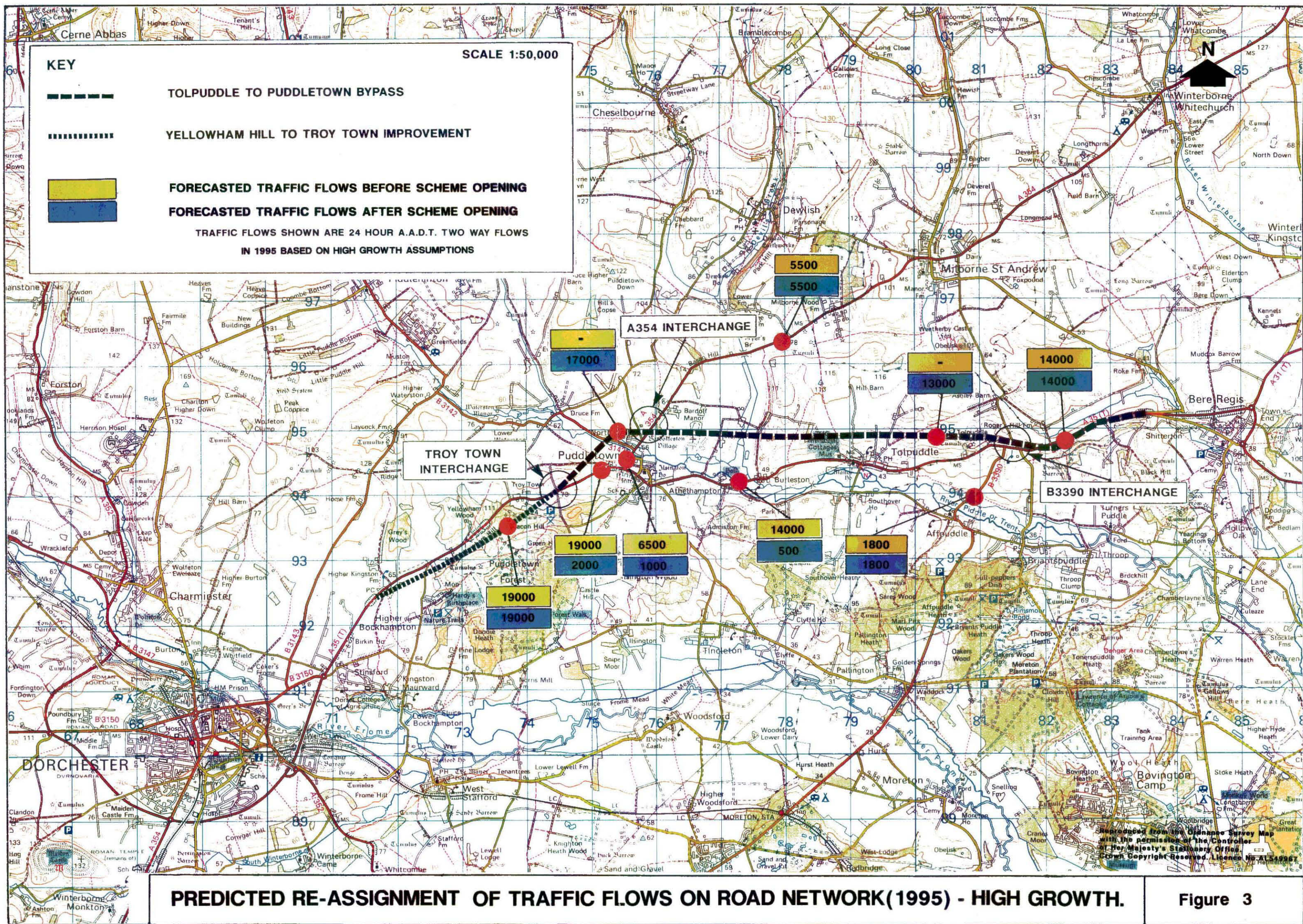
The road would cross a section of the River Piddle watermeadows with the removal of some localised areas of wet grassland. At Devil's Brook it would encroach onto a small part of the traditionally operated watermeadows, although the main area of these would remain unaffected. Some willow and ash woodland would also be lost at Devil's Brook, but the impact on the area for wintering wildfowl is unlikely to be high. Both these areas are of significant local conservation value which as a consequence of the road would suffer some loss of habitat and severance. As with the other ecologically sensitive areas affected by the road, mitigation measures should ensure that the long term impacts are unlikely to be of high significance.

ALTERNATIVES CONSIDERED

Three routes were put forward at Public Consultation in 1988 known as the Red, Orange and Purple Routes. The Red Route passed to the north of Puddletown and Tolpuddle and forms the basis of the Published Route. The Orange Route passed to the south of Puddletown and Tolpuddle and through the Affpuddle Conservation Area. The Purple Route followed the Orange Route south of Puddletown before turning north-eastward to pass between Puddletown and Tolpuddle just east of Burleston before joining the Red Route north of Tolpuddle. The Red Route was supported by 84% of individual respondents and by the County, District and Parish Councils.

The Published Route would carry most traffic as it would intercept the A354 traffic north of Puddletown whilst the Purple and Orange Routes would leave this traffic passing through the village. Although, over part of its length, the Published Route would have a higher impact on the landscape this would be mitigated by various measures whereas the other two routes would result in a lesser reduction of the noise, severance and road safety problems in Puddletown.





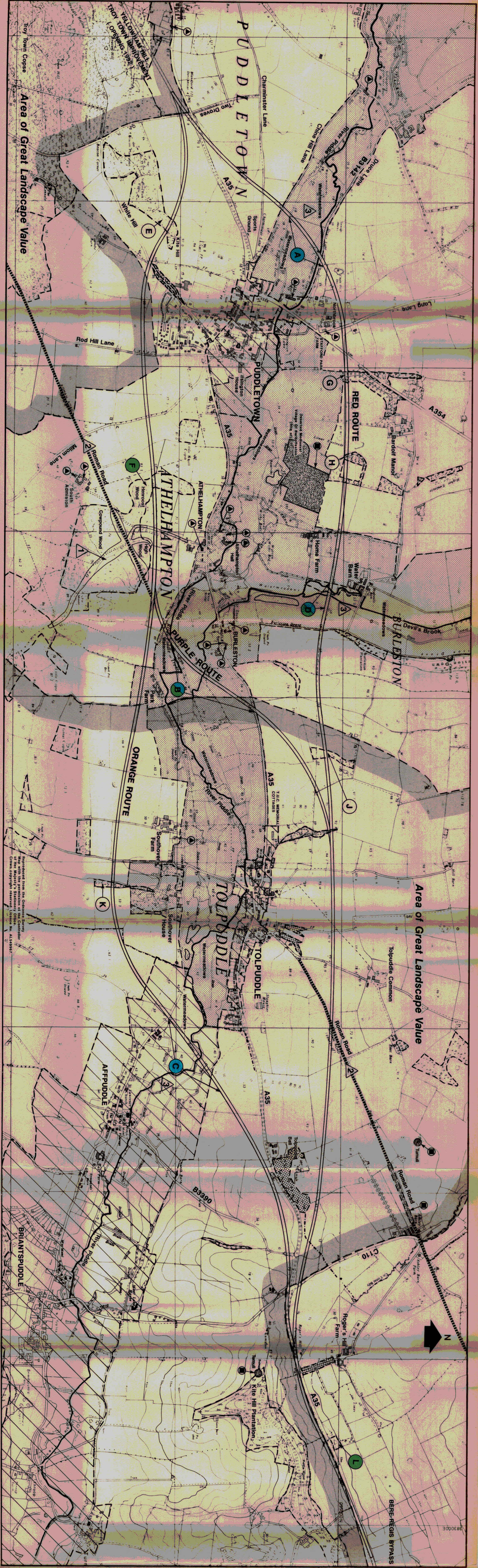
A35 TOLPUDDLE TO PUDDLETOWN BYPASS

ALTERNATIVE ROUTES AT PUBLIC CONSULTATION
SHOWING AREAS OF
ESPECIAL ENVIRONMENTAL SENSITIVITY

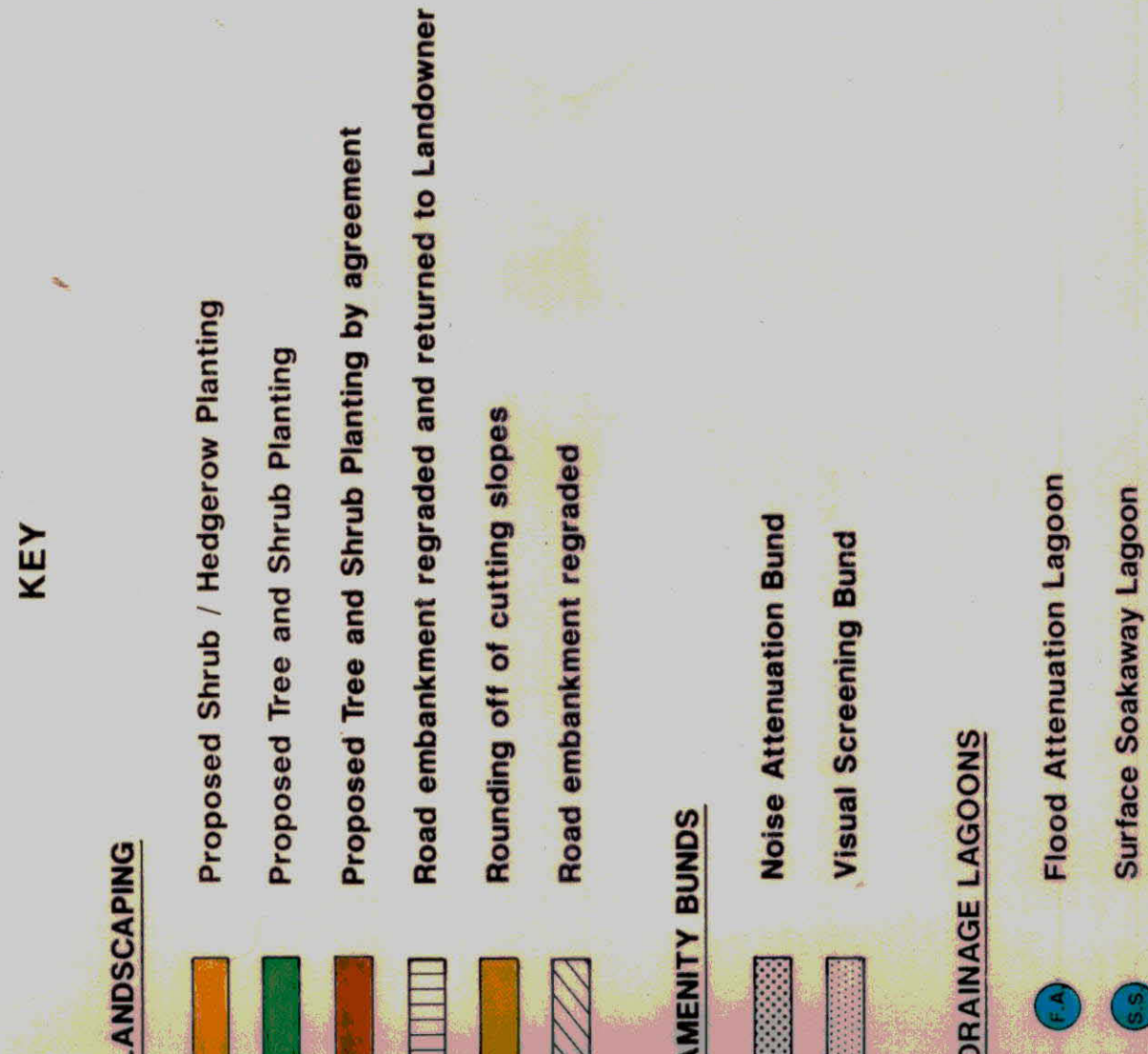
KEY

- Alternative Routes at Public Consultation
- Area of Great Landscape Value
- Tree Preservation Order
- Wooded Areas
- Conservation Areas
- Proposed as Valley Policy Areas
- Scheduled Ancient Monuments
- Listed Buildings Outside Conservation Areas
- Sites of Ecological Value (A to L)
- Woodland Sites of Highest Ecological Significance (F,L)
- Water Meadow Sites most important in terms of marsh flora (A,C)
- Water Meadow Sites most important in terms of wet Woodland / Scrub (B,D)
- Sites of Significant Archeological Interest
- Ancient Deer Park
- Course of Roman Road
- Ancient Water Meadows

Scale 1:10,000 Figure 5



MITIGATION MEASURES - SHEET 1



KEY

LANDSCAPING

- Proposed Shrub / Hedgerow Planting
- Proposed Tree and Shrub Planting
- Proposed Tree and Shrub Planting by agreement
- Road embankment regraded and returned to Landowner
- Rounding off of cutting slopes
- Road embankment regraded

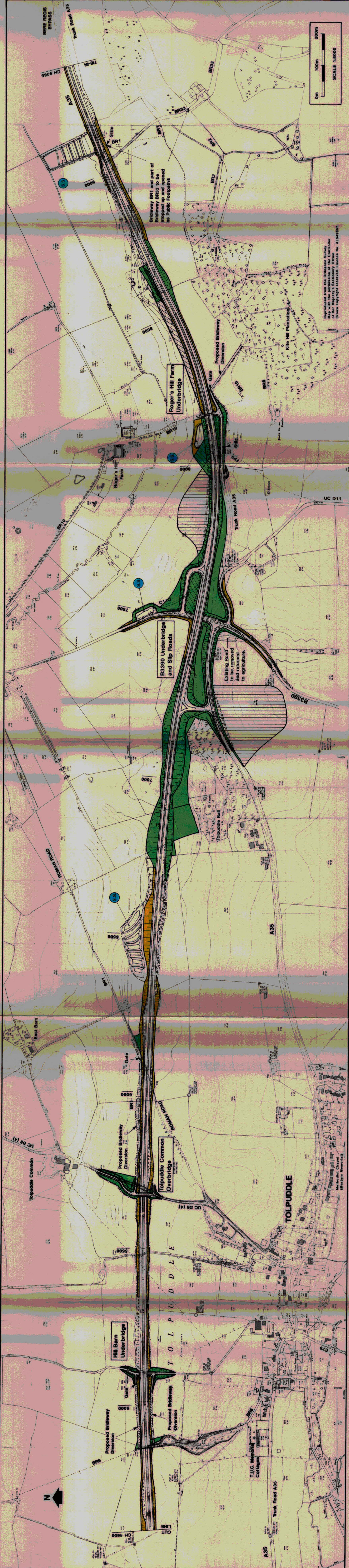
AMENITY BUNDS

- Noise Attenuation Bund
- Visual Screening Bund

DRAINAGE LAGOONS

- Flood Attenuation Lagoon
- Surface Soakaway Lagoon

Scale 1:5000



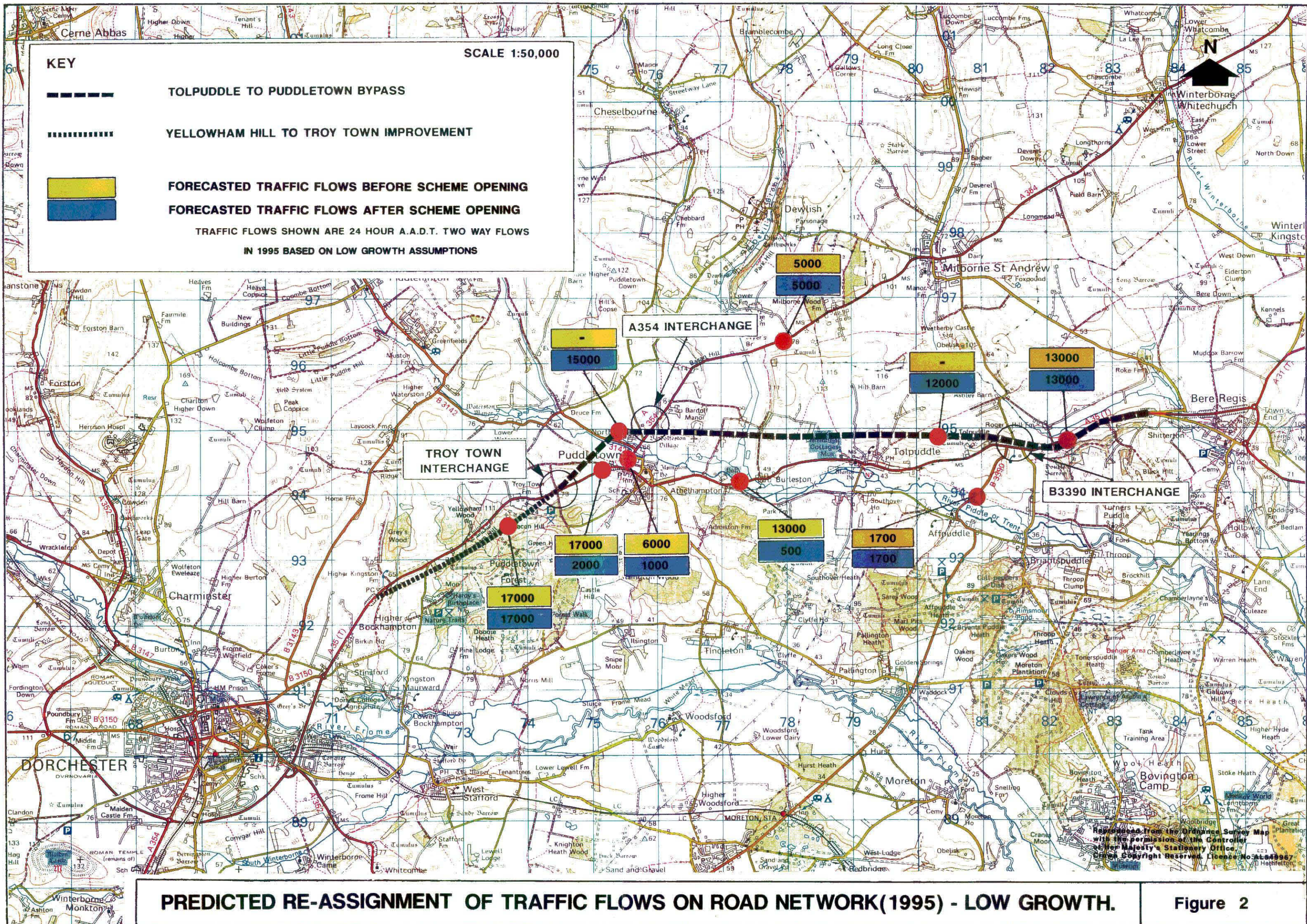
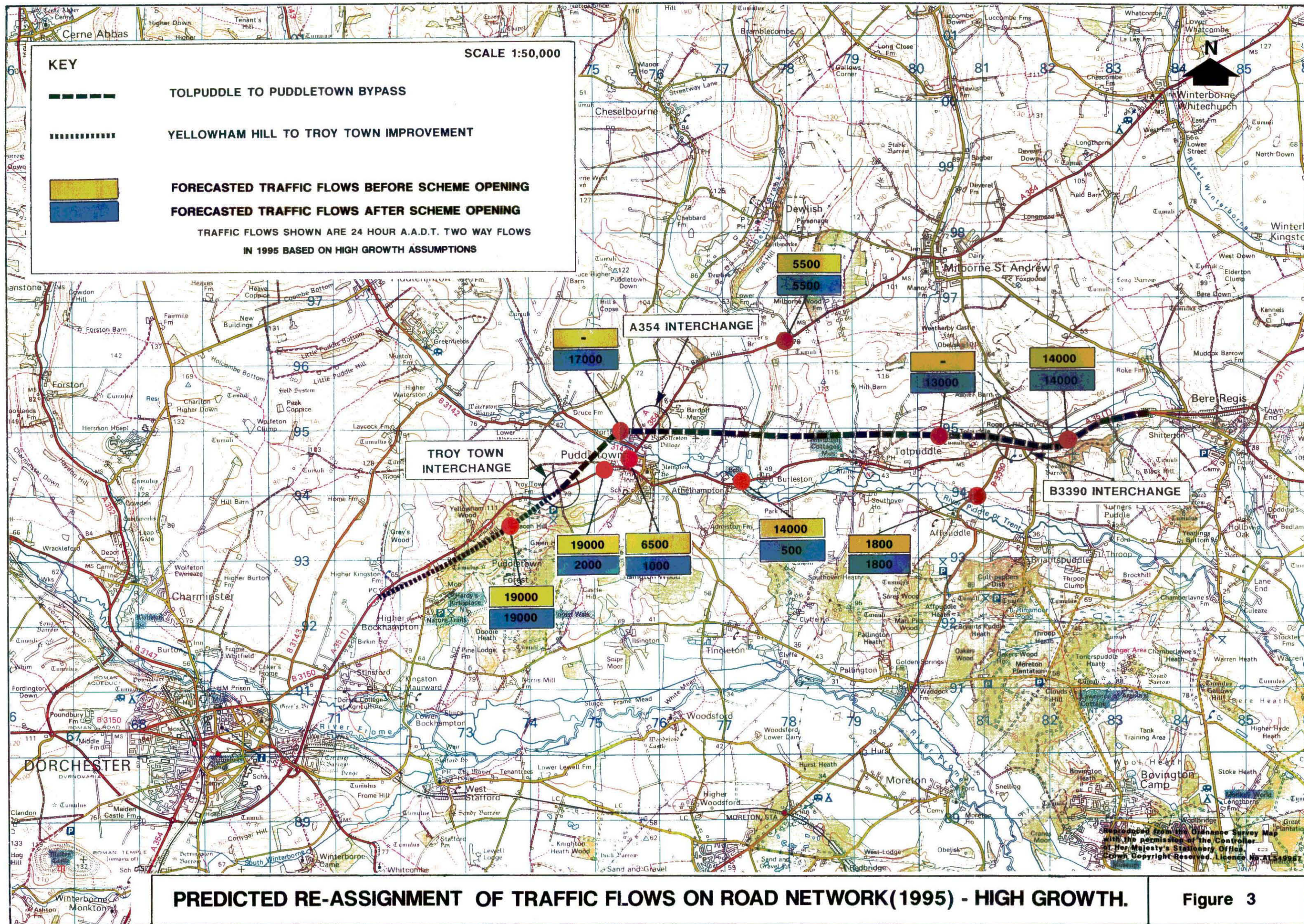


Figure 2



A35 TOLPUDDLE TO PUDDLETOWN BYPASS

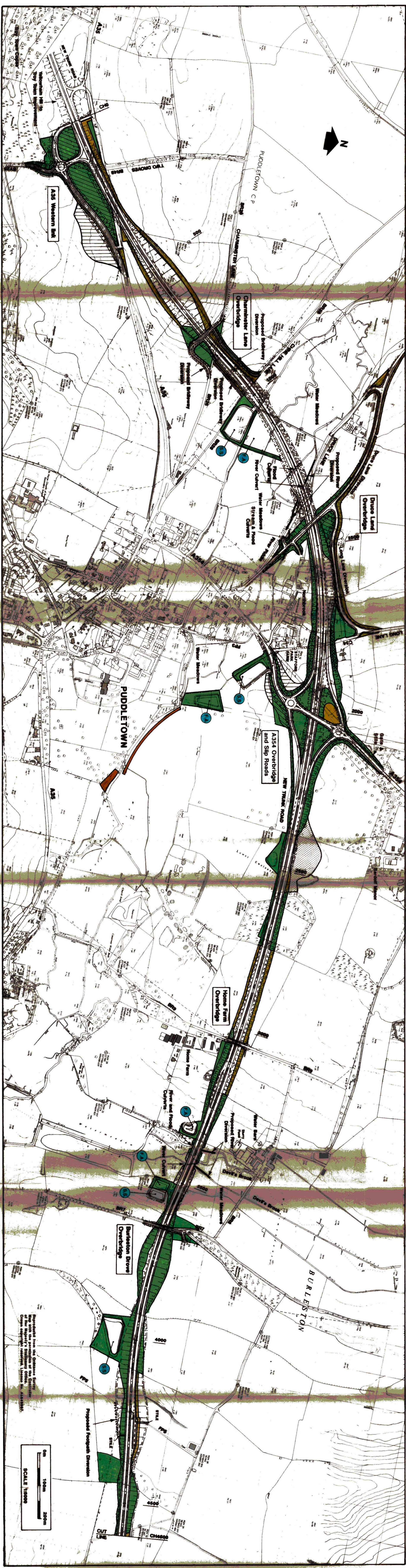
ALTERNATIVE ROUTES AT PUBLIC CONSULTATION
SHOWING AREAS OF
ESPECIAL ENVIRONMENTAL SENSITIVITY

KEY

- Alternative Routes at Public Consultation
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- Course of Roman Road
- Ancient Water Meadows

Scale 1:10,000 Figure 5





A35 TOL PUDDLE TO PUDDLETOWN BYPASS

MITIGATION MEASURES - SHEET 1

KEY

LANDSCAPING

- Proposed Shrub / Hedgerow Planting
- Proposed Tree and Shrub Planting
- Proposed Tree and Shrub Planting by agreement
- Road embankment regraded and returned to Landowner
- Rounding off of cutting slopes
- Road embankment regraded

AMENITY BUNDS

- Noise Attenuation Bund
- Visual Screening Bund

DRAINAGE LAGOONS

- Flood Attenuation Lagoon
- Surface Soakaway Lagoon



Scale

1:5000

Figure 7a

A35 TOLPUDDLE TO PUDDLETOWN BYPASS

MITIGATION MEASURES - SHEET 2

LANDSCAPING

Proposed Shrub / Hedgerow Planting

Proposed Tree and Shrub Planting

Proposed Tree and Shrub Planting by agreement

Road embankment regraded and returned to Landowner

Rounding off of cutting slopes

Road embankment regraded

AMENITY BUNDS

Noise Attenuation Bund

Visual Screening Bund

DRAINAGE LAGOONS

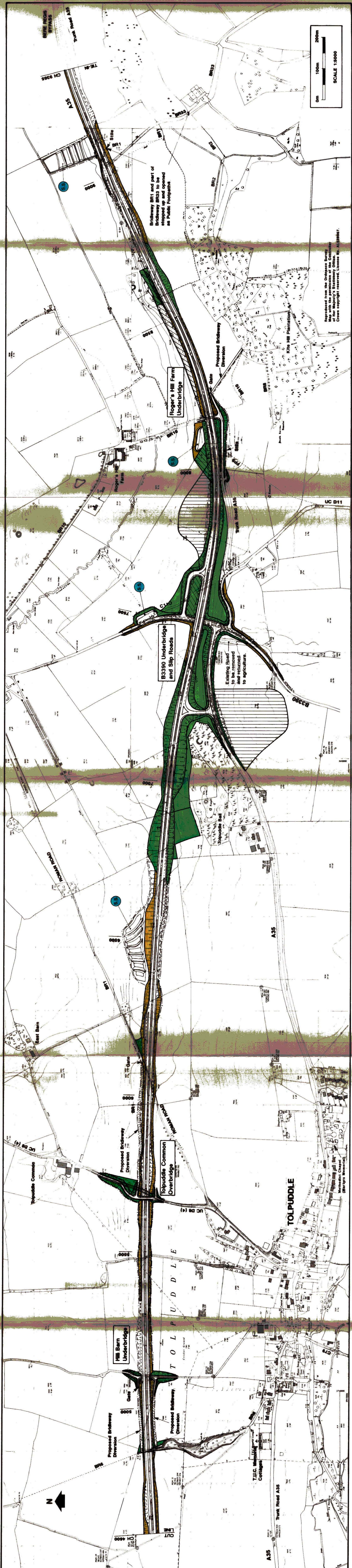
Flood Attenuation Lagoon

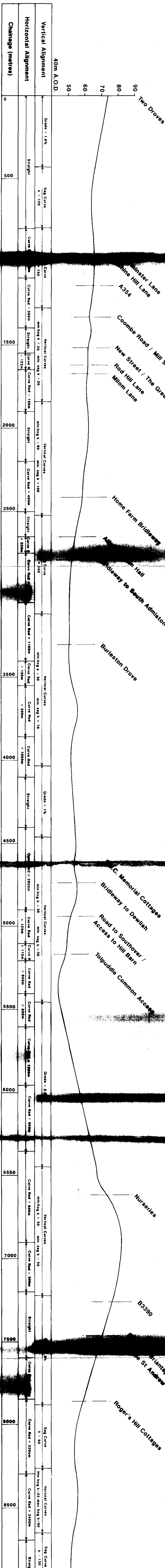
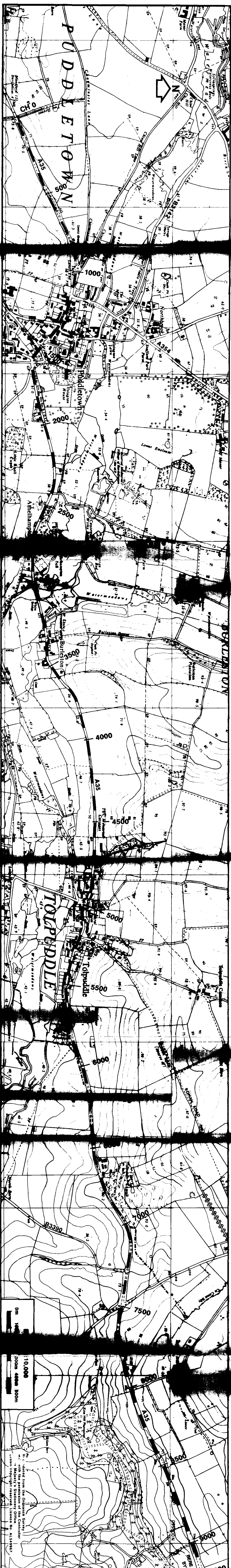
Surface Soakaway Lagoon

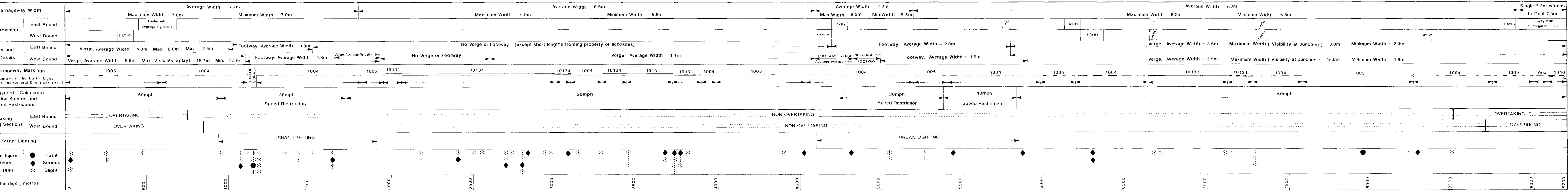
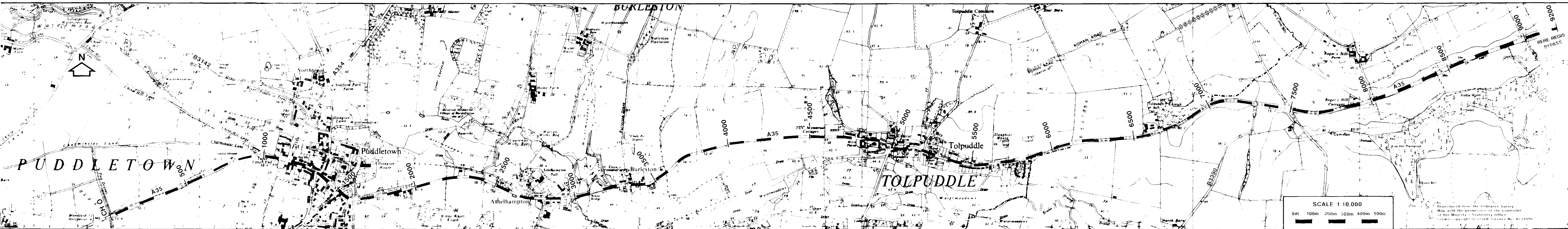
KEY

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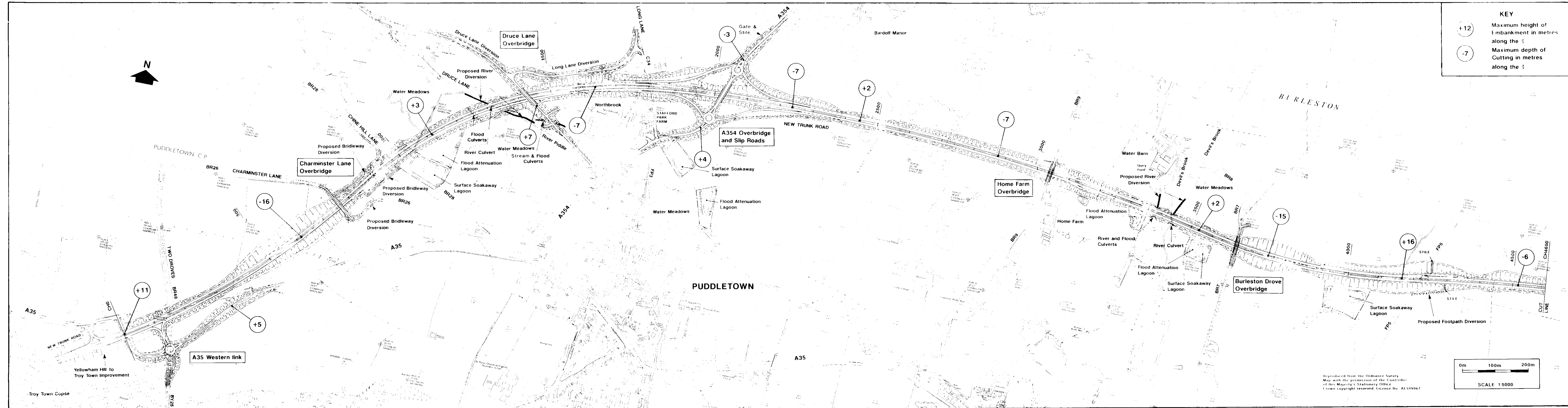
Figure 7b

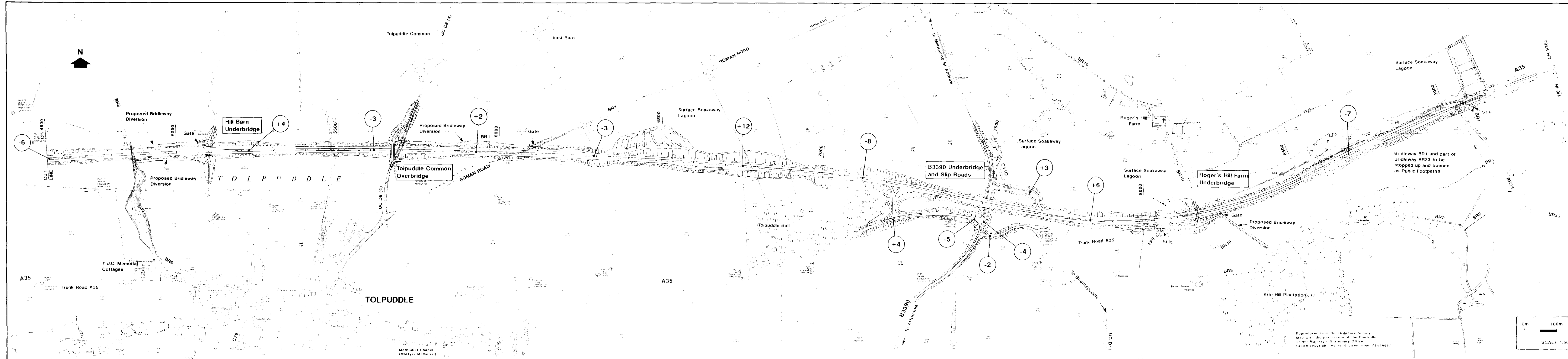




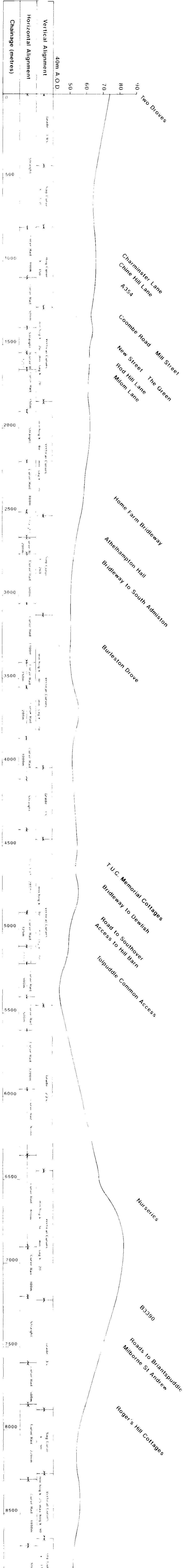
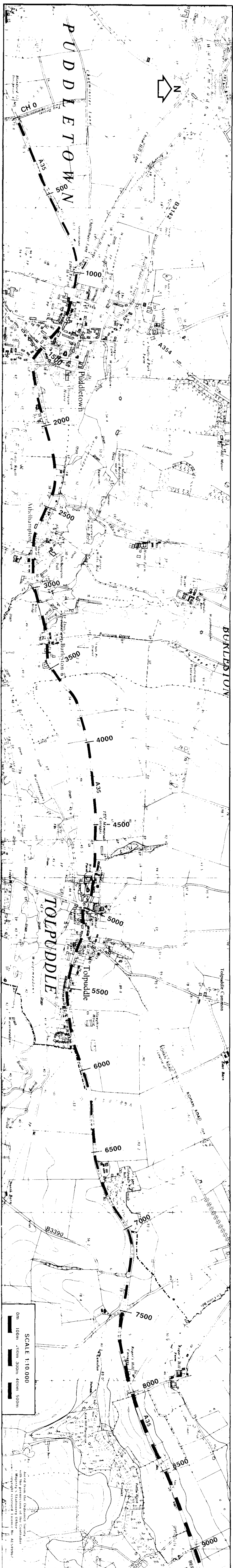


A35 TOLPUDDLE TO PUDDLETOWN BYPASS - EXISTING ROAD NETWORK - SHEET 2 Figure 4b

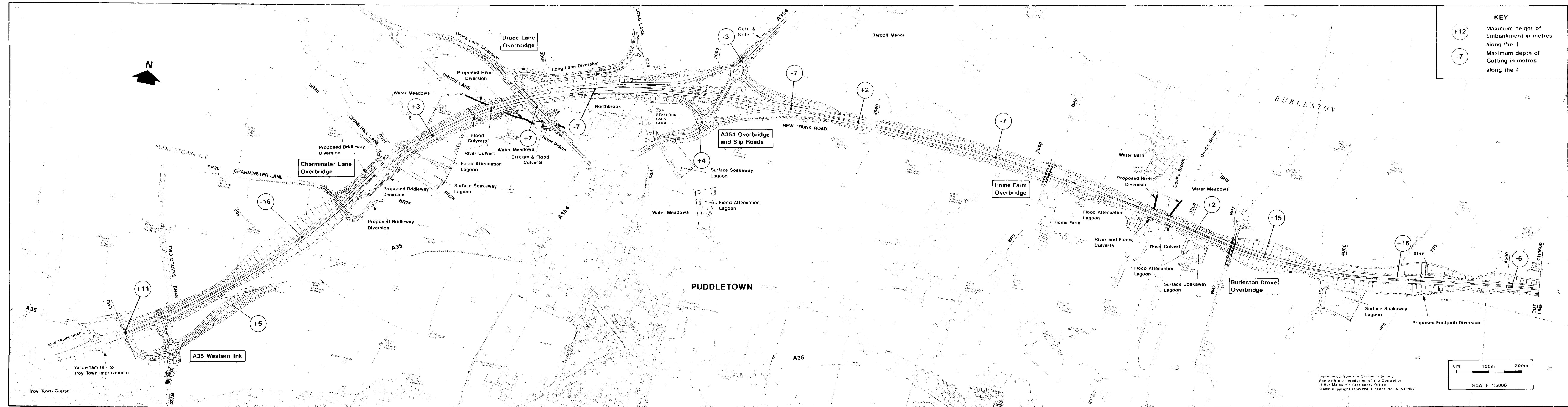


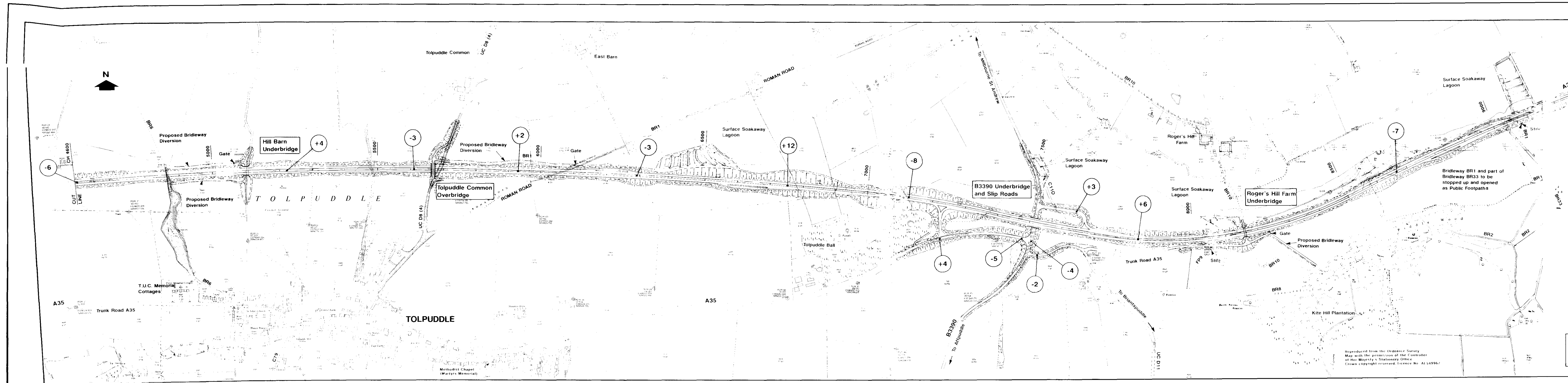


KEY	
(+12)	Maximum height of Embankment in metres along the 1
(-7)	Maximum depth of Cutting in metres along the 1



A35 TOLPUDDLE TO PUDDLETOWN BYPASS - EXISTING ROAD NETWORK - SHEET 1





KEY

+12 Maximum height of Embankment in metres along the ∇

-7 Maximum depth of Cutting in metres along the ∇