

4. APPENDICES

4.1 Appendix A - Relevant Herefordshire Council UDP Policies

S1 Sustainable development

The Plan will promote development and land use change, which in terms of its level, location, form and design contributes, to the achievement of sustainable development. This means avoiding or minimising adverse impacts on the environment whilst providing necessary dwellings and employment together with appropriate infrastructure, services, transport and amenities.

Sustainable development will be promoted by:

1. protecting and enhancing the natural environment and historic heritage, especially irreplaceable assets;
2. respecting patterns of local distinctiveness and landscape character in both town and country, and safeguarding landscape quality and visual amenity;
3. conserving and minimising use of natural resources - particularly non-renewables - and encouraging resource enhancement and alternatives to the use of nonrenewable resources;
4. regenerating or recycling previously-used resources - including previously developed, vacant and underused land, buildings and infrastructure - and perpetuating the use of existing infrastructure and facilities wherever possible;
5. increasing energy conservation, energy-efficiency, and energy generation from renewable sources;
6. minimising waste and pollution and adopting sustainable treatment systems;
7. directing necessary new development to strategic locations, settlements and sites that best meet the appropriate sustainable development criteria;
8. requiring more sustainable design in all aspects of new development, redevelopment and regeneration;
9. ensuring that development respects the needs of local communities and encouraging greater self-sufficiency within local communities;
10. seeking more equitable access for all sectors of the community to opportunities for homes and livelihoods, natural and historic resources, health, recreation, amenity, education, and facilities and services;
11. supporting sustainable economic activity and high and stable levels of employment;
12. supporting more sustainable approaches to land use and land management in rural areas;
13. reducing the need to travel, securing safe and convenient accessibility between different land uses and maintaining, improving and integrating opportunities to move safely and conveniently by modes other than personal motor transport;
14. improving health and safety through reduced pollution and safer design of the built environment and landscaping;
15. avoiding or minimising adverse impacts of human activities, land uses and development on the physical environment.

S2 Development requirements

The contribution that developments can make to a sustainable pattern of land use and development which respects the County's environmental resources will be secured by:

1. ensuring that new development achieves a high standard of design and layout which respects the townscape, landscape, ecological and historic character of the area; is sustainable in terms of its construction materials and methods, use of energy, water and other resources; and includes positive environmental benefits including landscaping schemes and provision of wildlife habitats;
2. promoting land use patterns and developments which favour mixed uses subject to amenity considerations, which respect the development potential of adjoining land, and which wherever possible secure the reclamation and beneficial use of degraded or contaminated land, environmental improvements and the reduction or removal of environmental conflicts;
3. ensuring that developments include suitable provision for public transport, cycling and walking, and that their likely effect in relation to the capacity and safety of both the trunk road and local highway network;
4. ensuring that development is designed having full regard to and within environmental constraints, including groundwater protection, land stability, contamination, and the location of hazardous uses;
5. taking a risk-based precautionary approach to flood risk and the effects of flooding elsewhere, having regard to indicative flood risk in the major flood plains of the Rivers Wye and Lugg and their tributaries. Where development is proposed in locations at risk of flooding, it should be demonstrated that there are no reasonable options available in a lower risk category, consistent with other sustainable development objectives;

6. ensuring that development does not lead to an unacceptable risk to human health and safety, and that risks of pollution of water, air, or land, or in terms of noise or lighting, are minimised;
7. ensuring that development which would result in significant negative effects is avoided, but where environmental impact is unavoidable, requiring mitigation or compensation measures which provide benefits at least equal to any environmental loss;
8. taking proper account of the ability of existing and proposed infrastructure including foul drainage, water supply and water resources, and the highway network to serve the development proposed without undue environmental impact; and
9. making use of planning conditions and planning obligations to further the strategy of the Plan.

S6 Transport

The safe, efficient and sustainable movement of people and goods will be promoted within the context of reducing the need to travel by:

1. locating developments wherever possible within the County's existing urban areas or at locations reasonably accessible by means other than the private car, in order to reduce growth in the length and number of motorised journeys and reliance on the motor vehicle, and promote modal choice according to a hierarchy of modes and solutions to demand for travel in order of their sustainability;
2. encouraging alternatives to the motor vehicle which through reducing energy consumption and pollution have less environmental impact;
3. promoting integration between transport modes so that the network is used to best effect;



The new Roman Road cycleway provides a link to Stretton Sugwas and Credenhill

4. assessing development and transport infrastructure proposals in terms of their traffic and transportation, economic development and environmental impacts and benefits, including implications for the whole road network including trunk roads, road safety, access to development areas, and assistance given to nonmotorised modes of travel and to reducing the need to travel; and
5. safeguarding appropriate opportunities for rail transport and the routes of new walking, cycle and highway schemes from development that would prejudice their implementation.

DR1 Design

Where relevant to the proposal, all development will be required to:

1. promote or reinforce the distinctive character and appearance of the locality in terms of layout, density, means of access and enclosure, scale, mass, height, design and materials;
2. retain and where possible incorporate existing site features contributing to the quality of the local environment, including landscape, historic and natural elements such as wildlife habitats and species;
3. respect the context of the site, taking into account townscape and landscape character and topography, including the impact of the proposal on urban vistas, longer distance views and ridgelines;
4. include measures that address health and safety, the conservation of energy and water, and avoids nuisance and pollution; and
5. submit a design statement with the application for planning permission which sets out how proposals relate to issues of design quality, environmental conservation and sustainability.

Development which does not adequately address design principles or is of poor design, including schemes which are out of scale or character with their surroundings, will not be permitted.

Within major development proposals, the provision of public art will be expected as an integral part of the overall design to enhance identity and local distinctiveness.

DR2 Land use and activity

Where relevant to the proposal, all development will be required to:

1. be located and designed so as to facilitate a genuine choice of modes of travel, including public transport, cycling and walking as alternatives to the private car;

4. APPENDICES

2. incorporate wherever possible a mix of compatible land uses and activities;
3. be designed to deter crime and increase personal safety;
4. not prejudice the amenity or continued use of adjoining land and buildings; and
5. not constrain the future development of adjoining sites or prejudice the implementation of comprehensive development.

DR3 Movement

Where relevant to the proposal, all development will be required to:

1. provide a safe, convenient and attractive pattern of movement into, out of and across the site, particularly for pedestrians, people with disabilities and cyclists, satisfying minimum design standards and incorporating pedestrian seating and cycle parking as required;
2. include good links to public transport, incorporating wherever appropriate suitable access for public transport vehicles into the site and associated passenger facilities;
3. include a travel plan as part of the planning application in the case of proposals for major employment, retail, leisure and service development, proposals for such uses in Hereford and the market towns generating significant travel, or where particular local traffic problems require to be addressed;
4. be designed to secure access and mobility for all;
5. incorporate adequate provision for vehicular access from the highway network without detriment to highway safety or to pedestrians, cyclists or public transport; and
6. incorporate cycle and vehicle parking to the required standards having regard to the need to promote sustainable transport choices, together with suitable turning and loading facilities in the case of development proposals with significant transport implications, include a transport assessment.

Taking account of any proposed measures to improve access by public transport, walking and cycling and to reduce motorised journeys, additional traffic arising from development should be capable of being accommodated on the local road network without undue environmental, operational or safety consequences, or the existing road system should be capable of improvement to meet those consequences.

Planning obligations will be used as required to secure high quality accessibility to sites with an emphasis on maximising access by public transport, walking and cycling.

DR4 Environment

Where relevant to the proposal, all schemes will be required to:

1. be capable of being served by existing services or demonstrate that adequate services are reasonably accessible or can be readily provided without significant environmental impact;
2. minimise resource use, including water and energy, and maximise resource efficiency including passive energy absorption;
3. safeguard the availability and quality of surface and groundwater supplies, avoid creating or exacerbating problems of flooding and pollution, and utilise sustainable drainage techniques in respect of surface water wherever possible, with alternatives being considered only where sustainable techniques cannot demonstrably be provided;
4. demonstrate that where the potential for causing pollution and general nuisance exists by emitting odour, dust, smoke, chemicals or fumes, that the chosen location, site layout and proposed operation together with any necessary mitigation or protection measures avoids adverse effects to other land uses, residential amenity and the environment;
5. contribute to local open space provision and safeguard and where appropriate protect, restore and enhance biodiversity, features of geological interest and landscape character; and
6. maximise opportunities to enhance the local environment, to include the appropriate provision of public art, external lighting, and hard and soft landscaping.

DR5 Planning obligations

To further the strategy of the Plan planning obligations will be sought to achieve community, transport and environmental benefits where these benefits are reasonable, necessary, relevant, and directly, fairly and reasonably related to the proposed development. The circumstances in which such benefits will be sought will be identified in relevant Plan policies and may be further detailed in supplementary planning guidance.

DR7 Flood risk

Proposals for development in flood risk areas will need to be accompanied by a flood risk assessment. Additionally and within high risk areas (zone 3) as defined on the proposals maps, proposals will need to demonstrate through a sequential test that there are no reasonable alternative locations available on land of a lower flood risk, taking account of other environmental considerations.

Development within high risk developed areas (zone 3a) may only be suitable for residential, commercial and industrial development provided the minimum standards for flood defence can be provided and maintained for the lifetime of the development.

Development within high-risk undeveloped and sparsely developed areas (zone 3b) will not be permitted unless a particular location is essential.

Built development within functional flood plains (zone 3c) should be wholly exceptional and limited to essential transport and utilities infrastructure that have to be there.

In all cases development will only be permitted where it would not be at an unacceptable risk of flooding or where it is essential to that location. Any protection, compensatory, mitigation and other measures proposed must be acceptable in safety terms and in terms of their environmental effects. All proposals would need to include a dry access, the necessary minimum standards of flood defence, show that there would be no net loss of flood plain storage and that it would not impede water flows or increase flood risk elsewhere.

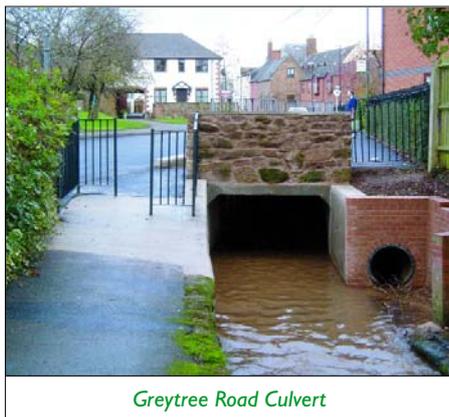
Wherever possible sustainable drainage techniques should be used to minimise the adverse effects associated with increased surface water run off. Adequate access to watercourses and flood defences for maintenance and improvements should be maintained.

DR8 Culverting

Development proposals should wherever possible retain open watercourses with an open corridor on both banks. Any culverting proposals should:

1. include appropriate mitigating enhancements;
2. be for the minimum length necessary;
3. demonstrate that the need for the development outweighs the objections to culverting in principle and that all other options have been explored and rejected; and

4. where development proposals are made for land containing a culverted watercourse, restore this to open channel as part of the overall scheme.



Greystone Road Culvert

DR10 Contaminated land

Development on or adjacent to land which is known or suspected to be contaminated will only be permitted provided that:

1. a site investigation and risk assessment has been carried out to determine the nature and degree of any contamination, its source and possible pathways and receptors; and
2. appropriate remediation and protection measures are proposed to reduce any risk to an acceptable level, taking into account the nature of the proposed use and the nature and extent of contamination, its source and possible pathways and receptors.

Development will not be permitted where the risk cannot be reduced to an acceptable level or appropriate remedial or protection methods are not proposed.

DR12 Hazardous substances

Applications for hazardous substances consent, for development involving the presence of hazardous substances, and for other development at or in the vicinity of establishments where hazardous substances are present, will only be permitted where there will be no unacceptable risks to the safety of the local community, the potential occupants and users of the development proposed, and the environment.

DR14 Lighting

Development requiring or likely to require external lighting should include details of the lighting scheme proposed. The scheme should meet the following requirements:

1. demonstrate that external lighting is necessary for the development, and that the proposed lighting scheme is no more than the minimum needed to achieve the necessary purpose;
2. minimise light spillage into adjoining areas and the sky;
3. have appropriate regard to the immediate surroundings taking into account residential amenity, environmental and landscape character, particularly in edge of settlement or rural locations; and
4. where necessary include suitable mitigation measures.



Lighting on a new development

Development which includes unnecessary, excessive or obtrusive lighting proposals will not be permitted. Lighting proposals should maximise the security, safety and crime prevention benefits of external lighting in relation to buildings, open spaces and walking and cycling routes.

4. APPENDICES

H16 Car parking

New housing developments will be subject to a maximum off-street car parking provision of 1.5 spaces per dwelling, with no minimum level of provision. Site densities and off-street parking provision should reflect site location, the type of housing to be provided, the types of household likely to occupy the development, and the availability of public transport.

E8 Design standards for employment sites

Proposals for employment purposes should provide for adequate infrastructure and the protection of the amenity of surrounding land uses particularly residential by:

1. limiting proposals for land adjacent to residential areas or other noise sensitive uses to B1 and B8 uses or other commercial uses where this would protect amenity, and imposing conditions as required to protect amenity;
2. orientating buildings and operations away from residential or other sensitive areas, and limiting door and window opening in buildings facing such areas to a minimum;
3. providing a buffer between buildings and land used for employment purposes and residential curtilages, such buffer to include landscaping, fencing, acoustic bunding, screen planting and noise attenuation measures as required and to exclude buildings and vehicle parking and manoeuvring;
4. incorporating a landscaping scheme which respects existing site features, makes provision for amenity open space areas, includes perimeter screen planting, and integrates with other aspects of the development;
5. ensuring that outdoor storage areas are kept to a minimum and where essential that they are properly designed and screened;
6. providing appropriate environmental protection ensuring satisfactory means for the disposal of trade effluent and the storage of waste by-products and waste awaiting disposal;
7. incorporate pedestrian and cycle links to residential areas and existing footpaths, together with access for public transport vehicles where appropriate and include measures for improving access by employees by alternative means of transport including travel Plans; and
8. not permitting proposals where the traffic generated is likely to cause serious nuisance to adjacent uses, adversely affect the effective use of land for employment uses, or lead to a significant increase in environmental disturbance caused by heavy goods vehicle movements on the local road network.

T2 Park and Ride

Proposals for bus or rail-based park and ride schemes for Hereford will be permitted subject to assessment of:

1. their feasibility and potential for implementation, and compatibility with the Local Transport Plan; and
2. their effect upon the current or any proposed future land use and the environmental impact of such a proposal on the area around a scheme;
3. their potential impact on existing bus services.



We will aim to introduce two permanent Park and Ride sites

T6 Walking

Development proposals should:

1. acknowledge the individual and network value of existing walking routes and, where appropriate, provide new links and infrastructure that enhance network capacity and encourage more journeys on foot, especially to workplaces, educational establishments, public transport nodes and other community facilities;
2. demonstrate that the strategic and/or local significance of walking routes through proposed development sites has been taken into account, especially in determining standards of provision including width, surfacing, signing and lighting;
3. respect the utility, convenience, recreational value, attractiveness and historical significance of any designated public right of way;
4. seek reasonably direct and convenient alignments for those new or improved walking routes that predominantly serve utility trips;
5. identify, with reference to the definitive map, the precise alignment and means of safeguarding of any public right of way, as well as the standard of any works to be carried out on the route;
6. demonstrate that the needs of disabled people have been taken into account in the design of new or improved walking routes; and
7. ensure that the legal alignment of any public right of way is kept open and usable during development works.

Development proposals that involve the extinguishment or diversion of a public right of way, or closure of any other type of established walking route, will not be permitted unless an alternative route of at least equal utility value can be provided on, or conveniently near to, the proposal site. The onus of demonstrating no net loss of value will be placed on applicants, in consultation with and to the satisfaction of the highway authority.

The creation of new public rights of way, permissive links, roadside forms of walking route will be supported where they add to the utility of the network, including providing missing links in otherwise continuous routes.

T7 Cycling

Development proposals shall wherever possible incorporate safe, direct, coherent, convenient and attractive cycle routes and associated facilities, taking full advantage of links to the existing or planned cycle route network and/or to major journey attractors including educational establishments, retail centres, public transport interchanges, leisure facilities and workplaces. The requirement for such provision and facilities may include related improvements to roads and junctions, cycle priority measures and the provision of secure cycle parking.

New cycle routes will be developed within the Plan period towards establishing a Countywide network. Off-highway routes will generally be for shared use with walkers. Planned routes already identified for development, include:

Hereford:

Great Western Way:

Northern extension from Widemarsh Common to Holmer Industrial Estate.

Southward extension from Haywood School to Newton Farm and proposed Haywood Country Park.

Commercial Road and Aylestone Hill.

Broad Street and Widemarsh Street.

St Owen's Street.

Edgar Street - Rail Station.

Holme Lacy Road - Phase 2 - Ross Road to Hinton Road.

Rotherwas/Lower Bullingham to Bartonsham.

Plough Lane to Eign Gate.

Hunderton (Golden Post) to Belmont (Ruckhall Lane).

King Georges V Playing Field to Lower Bullingham (riverbank route) and Green Crize.

Various safer routes to schools.

Inter-Urban Links (from Hereford):

Hereford- Ross-on-Wye to Symonds Yat (part Wye Valley Cycleway and National Route 44)

Development proposals that would prejudice the implementation of proposed routes within the Plan period will not be permitted. Similarly, development that would prejudice either the safety, convenience and attractiveness of existing

routes used by cyclists or the continuity and utility of such routes will only be permitted where at least equivalent alternative provision is made. The onus of demonstrating no net loss of value will be placed on applicants, in consultation with and to the satisfaction of the highway authority, including submission of cycle audits.

T8 Road hierarchy

Access to the road network will be controlled in accordance with the road hierarchy. New accesses on the strategic highway network will not be encouraged and should not inhibit the strategic function of these routes. Development proposals that require access to the road network should have regard to the need to:

1. ensure the efficient movement of goods and people;
2. maximise road safety;
3. promote sustainable and integrated transport, including access to development by means other than the private car;
4. secure the development of previously developed land; and
5. safeguard or enhance the local environment and amenity.

T9 Road freight

When considering proposals for development of new or expanded businesses that generate commercial road traffic, regard will be had to the environmental effects of heavy goods vehicles and other service vehicles and to the traffic impacts on both the strategic and local road network. Proposals that generate service vehicle movements that would unacceptably affect the amenity, safety and character of the existing or neighbouring environments by virtue of danger, noise, traffic generation and congestion, air pollution, visual intrusion or causing parking problems, will not be permitted. All proposals will be expected to incorporate adequate operational arrangements within their layout, and include traffic management measures and workplace travel plans and more sustainable delivery systems where appropriate.



We need to facilitate safe and efficient freight movement

4. APPENDICES

T10 Safeguarding of road schemes

The land required for the following new road schemes, or improvement of existing roads where realignment is necessary, will be protected from development which would be likely to prejudice their implementation:

1. A49 Ross Road to B4399 Holme Lacy Road (Rotherwas Access Road);
 - 1a. A49 Ross Road to A465 Abergavenny Road, Hereford;
2. A4103 Roman Road improvement (Tillington Road-Stretton Sugwas);
3. A4103 Roman Road improvement (eastern section);
 - 3a Edgar Street/Commercial Road link, Hereford;
 - 3b Canal Road extension, Hereford;
4. Leominster Enterprise Park access roads; and
5. Ledbury bypass.

T11 Parking provision

Development should incorporate suitable provision for car parking and operational space. Parking provision will generally be restricted as a maximum to that which is justifiably required, after having had regard to:

1. proximity to alternative provision, including the shared use of parking;
2. the availability of alternative modes of transport to the private car, including public transport, walking and cycling;
3. the type, design and use of development proposed;
4. any agreement to provide alternative arrangements for travel within the context of developing a workplace travel plan; and
5. road safety.

Parking provision will be further waived or restricted within conservation areas or where the setting of listed buildings may be affected in order that local heritage and the historic environment are not adversely affected, having regard to availability of alternative parking provision.

Within the central shopping and commercial area of Hereford, no further private nonresidential parking intended to meet the needs of commuters will be permitted.

T12 Existing parking areas

The beneficial redevelopment or re-use of existing private parking areas will be encouraged, particularly within Hereford and the market towns.

T13 Traffic management schemes

Traffic management schemes will be developed as appropriate within Hereford, the market towns, villages and the wider rural areas. Such schemes will be designed to limit the impact of traffic, improve access, safety and the local environment, enhance use of public transport and improve facilities for cycling and walking. Schemes will be required to audit existing use by walkers and cyclists and, where necessary, provide for appropriate improvements. They will also be required to meet the design guidance associated with the Plan.

Individual development proposals will be expected to include design elements which consider and contribute to such schemes wherever necessary.



T14 School travel

Proposals for new schools, for the expansion of existing schools and for associated facilities should include details of the arrangements proposed to support safer access and in general will need to include the development of a school travel plan. Any new housing development that causes significant increases to school numbers will be required to include elements within the design layout and/or off-site arrangements to support safer routes to school.

T16 Access for all

Development proposals for buildings or facilities which are to be used by the public or as places of employment will be required to provide suitable access for the disabled, older people and parents with young children. Any schemes concerning pedestrian movement, including traffic management and environmental enhancement, will need to provide appropriate access, means of circulation and a good relationship between buildings and parking areas, new and existing public access points and signage.

LA6 Landscaping schemes

Landscaping schemes will be required to be submitted as an integral part of any development proposals that will affect the visual amenity or character of the location. Landscaping schemes will be required to:

1. assess the existing character and features of the particular site and its wider landscape character in accordance with policy LA2, indicating how these have contributed to the overall design approach and which features, including trees, will be removed;
2. indicate and make arrangements to protect and retain existing trees and hedgerows, in accordance with policy LA5 and also other landscape features worthy of retention; and
3. include new landscape works to ensure development integrates appropriately into its surroundings in terms of scale, enhances any existing character and features and especially takes the opportunity to remove eyesores and improve disfigured or despoiled land.

Landscaping works should be undertaken during development or as soon as practicable thereafter. In the case of major proposals, consideration should be given to advanced landscaping works being carried out before building or enabling works are commenced.

RST1 Criteria for recreation, sport and tourism development

Proposals for the development of new recreation, sport and tourist facilities including change of use or improvement or extension to existing facilities will be permitted where the proposal:

1. is appropriate to the needs of the community which it serves, having particular regard to the nature of the use, mode of operation, scale and design;
2. would not harm the amenity of nearby residents;
3. respects environmental character and resources, including designated landscape, historic heritage, archaeology, biodiversity, and geological features and rights of way; and
4. is wherever possible accessible by a choice of modes of transport, with priority given to public transport, walking and cycling, and is designed to ensure access for all.

Proposals in the open countryside will only be permitted where the countryside is the primary resource for the proposal and the rural landscape and environment is sustained. In such instances new buildings will only be permitted where there are no suitable existing buildings capable of conversion, they are of a small scale and are ancillary to the primary proposal.

4.2 Appendix B - Relevant Herefordshire Council UDP Strategies

P1

The UDP will contribute to the achievement of sustainable development by developing land use policies and proposals which help ensure:

- Recognition of the legitimate needs of everyone in the community, and progress towards greater social equity;
- Sustainable economic activity and development, together with high and stable levels of employment;
- Effective protection, restoration and enhancement of the environment and of Herefordshire's environmental capacity; and
- Sustainable use of natural resources.

P9

The UDP will promote better accessibility to work, services and facilities in ways which reduce the overall need to travel and promote the use of non-car based transport. It will guide new development to locations which offer a choice of transport modes for movement of people and freight. In promoting accessibility, guiding the location of new development and evaluating proposals, the UDP will have regard to the hierarchy set out in the Local Transport Plan, which prioritises modes according to their inherent sustainability.

4. APPENDICES

4.3 Appendix C - Structures Certificates and Approval in Principal

DESIGN CERTIFICATE

To be submitted by the Design Engineer before construction commences. More than one certificate may be submitted if parts of the structure have separate designers.

We certify that reasonable professional skill and care has been used in the design of

..... (Name of structure) with a view to securing that:

i) It has been designed in accordance with the design documents listed in Schedule A attached*. The live loads are as follows

.....
.....

ii) The design has accurately been translated into contract drawings. The unique numbers of these drawings (copies of which are attached) are:

.....
.....

iii) Departures from standards and additional criteria which have been approved by Herefordshire Council are listed in Schedule B attached*.

SIGNED _____ DATE _____

NAME _____

POSITION HELD _____

(Design Team Leader) **

SIGNED _____ DATE _____

NAME _____

POSITION HELD _____

(Partner or Director) **

NOTES:

*1) The Council should be consulted to ensure appropriate documents are used. Notes for guidance are available to cover simple structures.

**2) The position, qualification and employing organisation of each person signing the certificate shall be stated.

CONSTRUCTION CERTIFICATE

To be submitted by the developer when construction is complete, before adoption of the structure.

We certify that:

1)(name of structure)
has been constructed* in accordance with the 'As Built' drawings, (copies attached) the unique numbers of which are as follows:

.....
.....

2) Departures from the drawings submitted with the design certificate have been approved by Herefordshire Council and are listed in Schedule C attached.

SIGNED _____ DATE _____

NAME _____

POSITION HELD _____

(Director)**

NOTES:

**(1) This undertaking does not absolve the developer or contractor from the need to notify the Council of progress on site sufficient to enable inspection of all critical stages.*

*** (2) The position, qualifications and employing organisation of each person signing the certificate shall be stated.*

4. APPENDICES

APPROVAL IN PRINCIPLE (DESIGN AND ASSESSMENT')(Bridge and other Highway Structures)

Name of Project

Name of Bridge or Structure

Structure Ref. No

1. HIGHWAY DETAILS

- 1.1 Type of Highway²
- 1.2 Permitted traffic speed³
- 1.3 Existing weight restriction

2. SITE DETAILS

- 2.1 Obstacles crossed

3. PROPOSED STRUCTURE

- 3.1 Description of structure
- 3.2 Structural Type
- 3.3 Foundation Type
- 3.4 Span arrangements
- 3.5 Articulation arrangements
- 3.6 Road restraint system type
- 3.7 Proposed arrangements for maintenance and inspection/Inspection for Assessment¹
 - 3.7.1 Traffic Management
 - 3.7.2 Access
 - 3.7.3^A Intrusive or further investigation proposed
- 3.8 Materials and finishes/Materials strengths assumed and basis of assumption⁴
- 3.9 Risks and hazards considered⁵
- 3.10^D Estimated cost of proposed structure together with other structural forms considered and the reasons for their rejection including comparative whole life costs with dates of estimates
- 3.11^D Proposed arrangements for construction
 - 3.11.1 Traffic Management
 - 3.11.2 Service diversions
 - 3.11.3 Interface with existing structures
- 3.12^A Year of construction
- 3.13^A Reason for assessment
- 3.14^A Part of structure to be assessed

4. DESIGN/ASSESSMENT' CRITERIA

- 4.1 Live loading, Headroom
 - 4.1.1. Loading relating to normal traffic under AW regulations and C&U regulations⁶
 - 4.1.2 Loading relating to General Order Traffic under STGO regulations⁷
 - 4.1.3 Footway or footbridge live loading
 - 4.1.4 Loading relating to Special Order Traffic, provision for exceptional abnormal indivisible loads including location of vehicle track on deck cross section⁸
 - 4.1.5 Any special loading not covered above
 - 4.1.6 Heavy or high load route requirements and arrangements being made to preserve the route, including any provision for future heavier loads or future widening
 - 4.1.7 Minimum headroom provided
 - 4.1.8 Authorities consulted and any special conditions required

- 4.2 List of relevant documents from the TAS
 - 4.2.1.1 Additional relevant Standards
- 4.3 Proposed departures from Standards given in 4.2 and 4.2.1
- 4.4 Proposed methods for dealing with aspects not covered by Standards in 4.2 and 4.2.1

5. STRUCTURAL ANALYSIS

- 5.1 Methods of analysis proposed for superstructure, substructure and foundations
- 5.2 Description and diagram of idealised structure to be used for analysis
- 5.3 Assumptions intended for calculation of structural element stiffness
- 5.4 Proposed earth pressure coefficients (k_a , k_o or k_p) to be used in the design/assessment¹ of earth retaining elements

6. GEOTECHNICAL CONDITIONS

- 6.1 Acceptance of recommendations of Section 8 of the Geotechnical Report to be used in the design/assessment¹ and reasons for any proposed changes
- 6.2 Geotechnical Report Highway Structure Summary Information (Form C)⁹
- 6.3 Differential settlement to be allowed for in the design/assessment¹ of the structure
- 6.4^D If the Geotechnical Report is not yet available, state when the results are expected and list the sources of information used to justify the preliminary choice of foundations¹⁰

7. CHECKING

- 7.1 Proposed Category
- 7.2 If Category 3, name of proposed independent Checker
- 7.3^D Erection proposals or temporary works for which an independent check will be required, listing parts of the structure affected with reasons for recommending an independent check

8. DRAWINGS AND DOCUMENTS

- 8.1 List of drawings (including numbers) and documents accompanying the Submission¹¹
- 8.2^A List of construction and record drawings (including numbers) to be used in the assessment
- 8.3^A List of pile driving or other construction records¹²
- 8.4^A List of previous inspection and assessment reports

9. THE ABOVE IS SUBMITTED FOR ACCEPTANCE

Signed _____ Name _____
Design/Assessment¹ Team Leader

Engineering Qualifications¹³ _____ Date _____
Name of Organisation

10. THE ABOVE IS REJECTED/AGREED SUBJECT TO THE AMENDMENTS AND CONDITIONS SHOWN BELOW

Signed _____ Name _____
Assessing Consultant Position Held

Engineering Qualifications¹³ _____ TAA* _____

Date _____ Position _____

Signed for Client _____
Project Manager

*TAA - Technical Approval Authority

4. APPENDICES

APPROVAL IN PRINCIPLE (DESIGN AND ASSESSMENT') (Bridge and other Highway Structures)

NOTES

- D. *Indicates clauses to be used in Design AIP only*
- A. *Indicates clauses to be used in Assessment AIP only*
1. *Delete as appropriate*
 2. *For a bridge, give over and/or under*
 3. *Include restrictions at or adjacent to the bridge and any environmental restrictions*
 4. *From record drawings or intrusive investigation*
 5. *e.g. Risks and Hazards required to be considered under CDM such as construction methods, future demolition, jacking for bearing replacement.*
 6. *e.g. HA loading*
 7. *e.g. HB or SV loading*
 8. *Include the following as applicable:*
 - a) *Gross weight of the vehicle in tonnes and vehicle No.*
 - b) *Axle load and spacing (longitudinally and transversely)*
 - c) *Air cushion in tonnes over area applied in m x m*
 - d) *Single or twin tyres and wheel contact areas*
 9. *Include the Geotechnical Report Highway Structure Summary Information Form C listing relevant design/assessment parameters*
 10. *When the results of the ground investigation become available, an addendum to the AIP, covering Section 6, shall be submitted to the TAA. The addendum shall have its own sections 8, 9 and 10 to provide a list of drawings, documents and signatures*
 11. *Include, without limitation:*
 - a) *Technical Approval Schedule (TAS)*
 - b) *General Arrangement Drawing*
 - c) *Relevant extracts from the Geotechnical Report (Section 8), Inspection Report, Intrusive Inspection Report, Previous Assessment Report (or reference for report)*
 - d) *Departures from Standards*
 - e) *Methods of dealing with aspects not covered by Standards*
 - f) *Relevant correspondence and documents from consultations*
 12. *Include some details of previous structural maintenance and/or strengthening works*
 13. *C.Eng, MICE, M.I.StructE or equivalent*
 14. *AIP is valid for three years after the date of agreement by the TAA. If the construction has not yet commenced within this period, AIP shall be re-submitted to the TAA for review.*

TECHNICAL APPROVAL SCHEDULE (Bridge and other Highway Structures)

Schedule of Documents Relating to Design or Assessment of Highway Bridges and Structures

British Standards

BS 5268; Part 2; (Date)*	Structural Use of Timber
BS 5400	Steel concrete and composite bridges
Part 1; (Date)*	General Statement (see BD 15 (DMRB 1.3.2))
Part 2; (Date)*	Specification for loads (as implemented by BD 37 (DMRB 1.3))
Part 3; (Date)*	CP for design of steel bridges (see BD 13 (DMRB 1.3))
Part 4; (Date)*	CP for design of concrete bridges (see BDI6 DMRB 1.3))
Part 5 (Date)*	CP for design of composite bridges (see BD 16 (DMRB 1.3))
Part 9 (Date)*	Bridge bearings (see BD 20 (DMRB 2.3.1))
Part 10; (Date)*	CP for fatigue (see BD 9 (DMRB 1.3))
BS 5628; Part; (Date)*	Unreinforced Masonry
BS 5930; (Date)*	Site Investigations
BS 6031; (Date)*	Earthworks
BS 8002; (Date)*	Earth retaining structures
BS 8004; (Date)*	Foundations
BS 8118; (Date)*	The structural use of aluminium
BS EN 1317-1-1998 Road Restraint Systems - Part 1	Terminology and general criteria for test methods
BS EN 1317-2-1998 Road Restraint Systems - Part 2	Performance classes, impact test acceptance criteria and test methods safety barriers
BS EN 1317-3-2000 Road Restraint Systems - Part 3	Performance classes, impact test acceptance criteria and test methods for crash cushions
BS EN 1317-4-2002 Road Restraint Systems - Part 4	Terminal and Transitions

Department of Transport Local Government and the Regions (DTLR)

Railway Group Approved Code of Practice GC/RC5510: Recommendations for the Design of Bridges

Railway Group Approved Code of Practice GC/RT5204: Structure Gauging and Clearances

Simplified Tables of External Loads on Buried Pipelines (1986)

Miscellaneous

Circular Roads No 61/72 - Routes for heavy and high abnormal loads

The Manual of Contract Documents for Highway Works (MCDHW)

Volume 1: Specification for Highway Works (Date)*

Volume 2: Notes for Guidance on the Specification for Highway Works (Date)*

Volume 3: Highway Construction Details (Date)*

The Design Manual for Roads and Bridges (DMRB)

Bridges and Structures, Advice Notes (BA Series)

The current alpha-numeric index in the DMRB, Volume 1, Section 0, Part 2 should be reproduced

Bridges and Structures, Advice Notes (BA Series)

The current alpha-numeric index in the DMRB, Volume 1, Section 0, Part 2 should be reproduced

Bridges and Structures, Advice Notes (BA Series)

The current alpha-numeric index in the DMRB, Volume 1, Section 0, Part 2 should be reproduced

Traffic Engineering and Control, Standards (TD Series)

TD 9/(Date)* Road layout and geometry. Highway link design

TD 19/(Date)* Safety fences and barriers

TD 27/(Date)* Cross Sections and headroom

TD 36/(Date)* Subways for pedestrians and cyclists, layout and dimensions

Highways, Advice Notes (HA Series)

HA 66/(Date)* Environmental Barriers - Technical Requirement

Highways, Standards (HD Series)

HD 22/(Date)* Ground Investigation and Earthworks- Procedure for Geotechnical Certification

■ The compiler of the AIP should insert the current date of publication of the asterisked British Standards. MCHW and DMRB Standards and Advice Notes. This should be in the form of the year of publication for British Standards, the month and year of publication for MCHW and the last two digits of the year of publication for DMRB Standards and Advice Notes. The dates of any Amendments should also be noted.

4. APPENDICES

4.4 Appendix D - Road Types Table (Summary)

Road Type	Dwellings Served	Design Speed	Widths	Maximum Straight	Junction Spacing		Min Centreline radius	Forward Visibility	Surface
					Same Side	Opp Side			
Footway	-	-	2m	-	-	-	-	-	Tarmac
Cycletracks	-	15mph	3.5m shared use 2.5m + 1.5m segregated	-	-	-	15m	23m	Tarmac
Single Private Drives	1	-	3.2m	-	-	-	-	-	-
Shared Private Drives	Up to 5	10mph	3.5 min	-	-	-	-	-	-
Shared Surfaces	Up to 25 50 with two points of access	15mph	4.5 min 2 x 2m service strips	30m	-	-	15m	23m	Block paved
Home Zones	Depends on traffic flow criterion	10mph	Varies	30m	-	-	Swept path	12m	Varies
Minor Access Road	Up to 100	20mph	5.5m (4.8m > 50 dwellings) 2 x 2m footways	40m	-	-	20m	33m	Tarmac
Major Access Road	100-300	20mph	5.5m 2 x 2m footway	40m	30m	15m	25m	33m	Tarmac
Local Distributor Road	> 300	30mph	7.3m 2 x 2m verge 2 x 2m footways	60m	100m	50m	40m	60m	Tarmac
Industrial and Commercial	-	30mph	7.3m 2 x 2m footways	60m	30m	15m	80m	60m	Tarmac