

Birstall Park and Ride

Appendices to Business Case Submission
Community Infrastructure Funding
Round 2 November 2008



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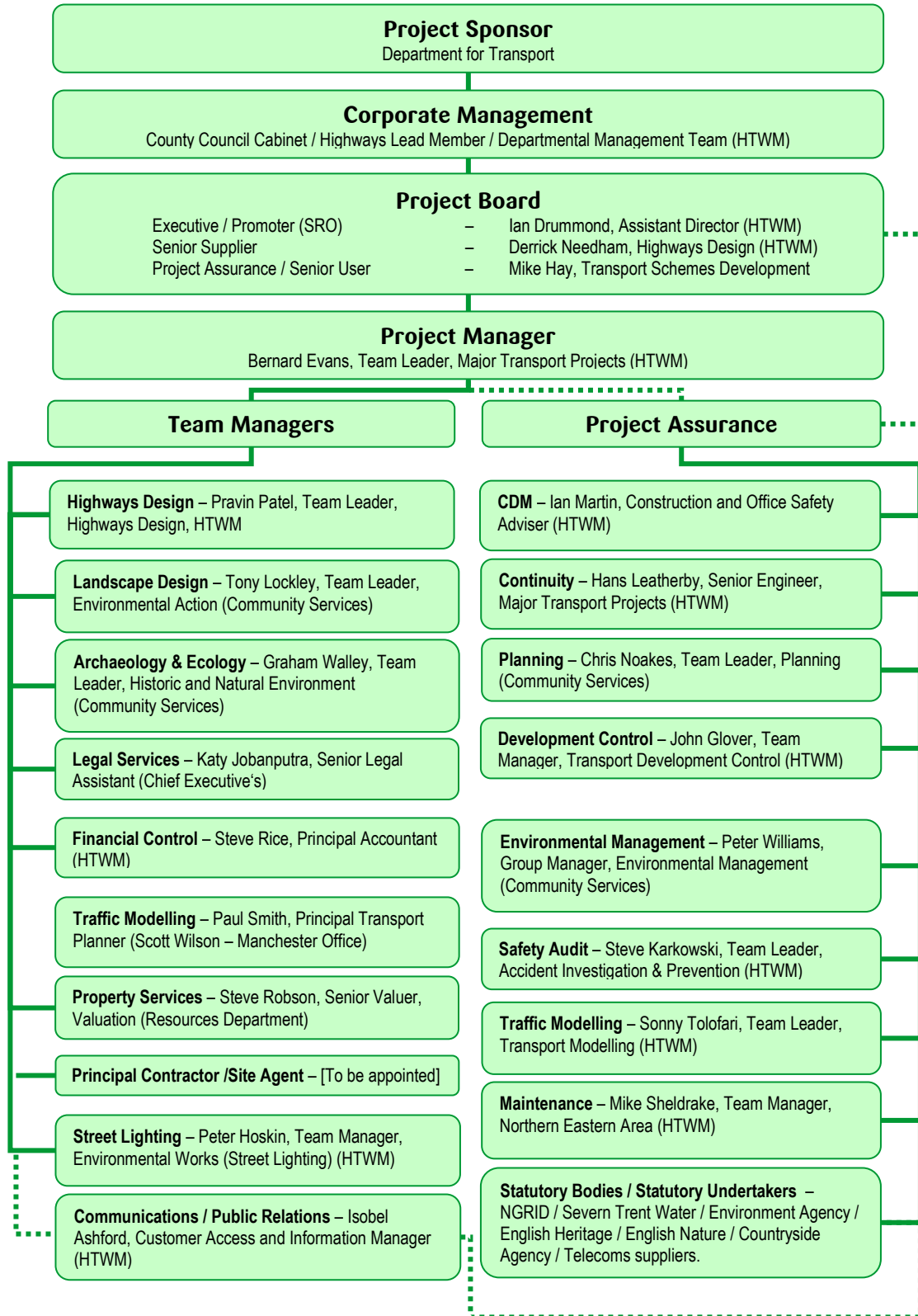
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Appendix B - Cost Estimate and Expenditure Profile

Appendix C - Governance

BIRSTALL PARK AND RIDE SCHEME COST ESTIMATE (Q1 2007 BASE)	
WORKS	
Roadworks & Civils	
Site Construction	
Perimeter	
Site clearance/levelling	
Drainage and service ducts	
Earthworks	
Road Pavements	
Kerbs, footways and paved areas	
Road lighting	
Traffic signs (including ADS)	
Cycle facilities included in kerbs & paving	
New interchanges	
CCTV	
provision to complete junctions	
Sub Total:	
Other Costs	
Landscaping	
Terminal Building	
Statutory Utilities Diversion Works	
Sub Total:	
TOTAL	
TOTAL WORKS BEFORE CONTINGENCES	
CONTINGENCIES FROM CIR	
Historic Inflation	
OUTTURN TOTAL WORKS	
FEES	
Advice / IT/AV/AVP	
MTP	
EDS	
Supervision 5%	
Transmission	
Public Transport	
Community Services	
Environmental Design (CS)	
Archaeology (CS)	
Ecology (CS)	
Estimate	
Legal PI	
AIU (Safety Audit)	
Archaeology (Consultants)	
Ecology (Consultants)	
Ground Investigation (Consultants)	
sewer, pricing	
Modelling INVA	
Property	
TOTAL	
TOTAL FEES	
OUTTURN TOTAL FEES (3% inflation)	
LAND	
8 Acres @ £16000	
PI claims	
OUT TURN LAND (5% inflation)	
OUTTURN TOTAL FOR SCHEME	



Appendix D - Quantified Risk Assessment

Quantified Risk Assessment (1000 spaces)

RISK SCORE = 1-VERY UNLIKELY (10%), 2-MODERATELY UNLIKELY (25%), 3-LIKELY (50%), 4-MOST LIKELY (75%)
 IMPACT SCORE = 1-VERY LOW, 2-LOW, 3-MODERATE, 4-HIGH, 5-VERY HIGH
 RESPONSIBILITY (RESPBTY) = 1-PUBLIC SECTOR, 2-PRIVATE SECTOR, 3-SHARED, 4-OTHER

CONTINGENCY SUMS AT 2006 PRICES

SECTION A - STATUTORY PROCEDURES

Ref.	RISK HEADING	Stages	Lump Sum	Delay months	delay cost	RISK	IMPACT	RESP.	COMMENT	ACTION	CONTINGENCY	Responsibility
A1	Unforeseen delays to land acquisition process by up to 6 months	6	£20,000	6	£92,392	2	5	1	Though land is already secured for this development through a section 106 agreement, this is for a 535 space C.P. whereas LCC are negotiating terms for 1000 spaces.	Liaise closely with Government offices up to Order publication. Ensure issues & objections raised are fairly dealt with. Allow programme flexibility.	£28,098	BE/Elaine Derrick
A2	Delays up to 6 months if major modifications to Planning.	6	£30,000	6	£92,392	1	5	1	Possible new planning constraints	Allow flexibility in project plan & liaise with CBC planners during design development	£12,239	BE
Statutory procedures sub-total											£40,337	

SECTION B - DESIGN

Ref.	RISK HEADING	Stages	Lump Sum	Delay months	delay cost	RISK	IMPACT	RESP.	COMMENT	ACTION	CONTINGENCY	Responsibility
B1	Modifications resulting from safety audit; delays up to 2 months	7	£15,000	2	£30,797	1	3	1	Junction connections to Highway network are constructed & already in place	Allowance in programme for safety audits.	£2,290	BE/HL
B2	Changes in design standards together with delays up to 3 months	7	£25,000	3	£46,196	1	2	1	Changes largely driven by external influences.	Continue to monitor impending changes	£1,780	DN
B3	Design shortfalls & inaccurate surveys together with delays up to 3 months.	7	£50,000	3	£46,196	2	4	1	Experienced design team in place	Appropriate design audits allowed in programme	£18,037	BE/DN
B4	Unforeseen delays to obtain approval from all external authorities by up to 6 months	7	£10,000	6	£92,392	2	5	1	Jelson EIA has not identified any major issues. As Enderby, SUDs system will need Env. Agency approval	Liaise with external authorities & provide timely notification of scheme changes. Allow programme flexibility	£25,598	BE/DN
B5	Inaccurate inflation forecast & budget underestimation.	7	£184,783	0	£0	3	3	1	Historic record of variations in SU estimate and construction price indices	Budget update on a regular basis as design proceeds. Use best available inflation indices	£46,196	BE/HL
Design sub-total											£93,900	

SECTION C - ADVANCE WORKS AND CONSTRUCTION

Ref.	RISK HEADING	Stages	Lump Sum	Delay months	delay cost	RISK	IMPACT	RESP.	COMMENT	ACTION	CONTINGENCY	Responsibility
C1	Delay &/or disruption to land entry due to vandalism, protestor or other external actions of up to 1 month	8	£100,000	1	£15,399	1	5	4	Consultation to date has not identified potential 'direct action' objectors.	Maintain communications with objectors. Ensure Preliminaries include full site security. Assess contract security arrangements.	£11,540	BE
C2	Unforeseen presence of protected species resulting in seasonal constraints delays start of works by up to 6 months.	8	£25,000	6	£92,392	2	5	1	Unlikely because proposals are on land currently a farmed arable field.	Commence ecological surveys, as planned.	£29,348	DWN
C3	Discovery of archaeological remains during works resulting in 3 month delay.	8	£50,000	3	£46,196	1	3	4	No evidence of historic activity on site.	Allow for watching brief during construction.	£4,810	DWN

Appendix F – Scheme Appraisal Worksheets

C4	Unforeseen delays up to 3 months due to statutory undertakers works on site	8	£100,000	3	£46,196	2	2	2	SU connections to new services only - no diversionary works required.	Continue to liaise with Statutory Undertakers & provide timely notice of scheme changes. Early trial holes & allow programme flexibility.	£9,137	DWN
C5	Delay & disruption of work caused by developers/ others in the vicinity of the planned works.	8	£60,000	1	£15,399	1	3	2	Site is remote and off the existing highway. Highway accesses already in place.	Continue to monitor & liaise with known developers. Review design as appropriate.	£3,770	DWN
C6	Unforeseen ground/site conditions, including contamination; 3months delay	8	£150,000	3	£46,196	4	1	4	No ground investigation undertaken to date. However, no major structures proposed.	Commission GI at the earliest opportunity - when land access becomes available.	£14,715	DWN
C7	Unforeseen circumstances forcing suspension of scheme up to 3 months, e.g. fuel crisis or flooding.	8	£200,000	3	£46,196	1	5	4	Scenarios, because of their nature, unknown.	Allow for flexibility in project plan	£24,620	BE
C8	Adverse weather conditions delays works by up to 3 month.	8	£0	3	£46,196	2	3	4	Potential delay to opening date.	Programme works most sensitive to adverse weather for summer months where possible	£5,774	DWN
C9	Other contractual claims due to change of scope; 3 months delay	8	£200,000	3	£46,196	2	3		Due to inadequate survey /design or rescheduled target dates or political intervention that changes the project scope	Provide contingency sum	£84,000	DWN
C10	Contractor goes bankrupt.	8	£50,000	3	£46,196	1	3	1	Financially secure Contractor	Contractor appointed under Midland Highway Alliance	£4,810	MS
Construction sub-total											£192,523	

SECTION D - OTHER RISKS

Ref.	RISK HEADING	Stages	Lump Sum	Delay months	delay cost	RISK	IMPACT	RESP.	COMMENT	ACTION	CONTINGENCY	Responsibility
D1	Loss of key personnel delays progress up to 3 months	all stages	£15,000	3	£46,196	2	3	1	Key personnel vital to scheme continuity	Maintain good staff morale	£84,000	ID
D2	Cash flow deficit	4	£150,000	0	£0	2	2	1	Allowance for land purchase at scheme outset.	finance through borrowing	£84,000	ID
Other sub-total											£168,000	

QRA GRAND TOTAL **£494,760**

Appendix F – Scheme Appraisal Worksheets

B.1 The Transport Analysis Guidance provides the methodology for the New Approach to Appraisal (NATA) of transport projects. The DfT website sets out this guidance including WebTAG proforma worksheets for each sub objective to assist with a structured analysis against a series of pre defined features.

B.2 The quantitative data under certain sub objectives is not contained within the Environmental Statement attached to the planning permission for the overall development and it has not been possible to complete these worksheets. However, where data is available this has been provided in the following worksheets.

Scheme Worksheets

Worksheet for Environment – Noise	8
Worksheet for Environment – Local Air Quality -Plan Level	9
Worksheet for Environment: Heritage of Historic Resources (Archaeology) - Plan Level	13
Worksheet for Environment: Biodiversity – Plan Level	15
Worksheet for Environment: Water Environment – Plan Level	17

Worksheet for Environment – Noise

NOISE MONITORING RESULTS – 16/17 October 2000

NGR: SK 459300, 310100

Description: Cul-de-sac backing onto school playing field, monitoring located on wall against mesh fence, orientation 346 Deg, Mag N, free field

Noise Character: Distant road noise

Time:	L _{Aeq,t}	L _{A10,t}	L _{A90,t}	L _{Amax}	File Number	Notes
Evening peak	60.6	62.5	57.5	75.5	65	Light breeze (N/NW), some cloud.
Night	43	46.5	34	64.6	68	Still
Early morning	53.5	55	50	70.8	71	Still
AM Peak	56.5	58	54.5	62.4	74	Calm, bright, fresh
Interpeak	55.5	57.5	46	78.3	77	Calm, bright, fresh

TRAFFIC NOISE CALCULATIONS dB(A)

Road Section	2000	2006 without		2006 with	
	Noise Level	Noise Level	Increase from 2000	Noise Level	Increase from 2000
Opp. Access	56*	56*	N/A	59.1	N/A
P&R access	56*	56*	N/A	54.9	N/A
A6N	70.9	71.2	0.3	71.8	0.9
A6S	70.9	71.2	0.3	71.5	0.6

Reference Source(s):

Hallam Fields, Birstall, Leicestershire, Environmental Statement, Jelson

Summary assessment score:

Neutral

Qualitative comments:

Overall, these tables show noise level changes of less than 1dB(A). This would be regarded as an imperceptible increase causing a **negligible** impact on noise.

Worksheet for Environment – Local Air Quality -Plan Level

PREDICTED AIR QUALITY RESULTS

Predicted Air Quality Results		CO	NO2		Benzene	PM10	
		Max 8hr	Ann Ave	Max 8hr	Ann Ave	Ann Ave	90%ile
		Mg/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Site A	2000 Base Case	3.57	32.94	129.01	2.37	21.94	39.27
	2012 With Scheme	2.00	19.68	86.50	1.12	17.14	30.68
	2012 Without Scheme	2.05	20.22	88.47	1.14	17.20	30.78
Site B	2000 Base Case	3.20	29.13	117.31	2.13	21.43	38.35
	2012 With Scheme	1.89	18.22	81.14	1.07	16.99	30.41
	2012 Without Scheme	1.92	18.63	82.65	1.08	17.03	30.48

Reference Source(s):

Hallam Fields, Birstall, Leicestershire, Environmental Statement, Jelson

Summary assessment score:

Neutral

Qualitative comments:

Concentrations of pollutants at potentially sensitive receptors along the A6 corridor for the base case were found to remain well within the UKAQ objectives and no exceedences of UK AQ objectives were predicted at 2012. Overall the assessment of the potential air quality impact associated with the operation of the scheme is likely to be **imperceptible**, being less than 10% of the appropriate UKAQ standard for the pollutant examined.

Worksheet for Environment - Landscape

PARK & RIDE: Sheet 1 –

Feature: Pattern			
Description			
The site is rural and open in character and its landscape is characteristic of the arable fields that surround it. The area east of the Park and Ride site is focused on a shallow valley and the areas of higher landscape are to be left undeveloped.			
Scale it Matters	Rarity	Importance	Substitutability
The pattern of the Park and Ride site is in arable field which is significant to the local area	The pattern of the Park and Ride site is in arable field which is of a topography typical to the local area	The pattern of the Park and Ride site is in land of no special significance other than for local agricultural use	The pattern of the Park and Ride site is in one of many arable fields in the vicinity
Changes in Do Minimum			
Implementing the bus lanes along the A6 would result in the loss of trees and hedgerows, resulting in longer distance views across the A6. However, there will be no adverse impact			
Impact			
The impact would be neutral.			
Mitigation Measures			
Mitigation measures should attempt to conceal development from sensitive viewpoints.			

Feature: Tranquillity			
Description			
The site is rural and open in character but its landscape quality is reduced by the existing built edge of Birstall, the A6 and A46 with their associated lighting and traffic impacts. The area east of the Park and Ride site is focused on a shallow valley and is of a higher quality. The areas of higher landscape are to be left undeveloped.			
Scale it Matters	Rarity	Importance	Substitutability
The tranquillity is typical to the arable fields within the local area	The tranquillity is typical of open fields	The tranquillity is in land of no special significance other than for local agricultural use	The tranquillity could be substituted.
Changes in Do Minimum			
There would be no changes to the density & mix in the transportation do-min. The rural open space would remain untouched			
Impact			
The impact would be neutral.			
Mitigation Measures			

Feature: Cultural			
Description			
The site is rural and open in character and its landscape is characteristic of the arable fields that surround it. A field walking survey in 1982 to the east of the site found a scatter of early Neolithic flint implements. Evidence of a mid 5th-mid 6th century inhumation cemetery came during the construction of Longslade School, which is to the east of the site. The full extent of the site is not known but is likely to form part of a much larger site that may extend into the proposed site			
Scale it Matters	Rarity	Importance	Substitutability
The culture of the predominantly rural land is typical to the arable fields within the local area	The culture is typical of open fields	The culture is in land of no special significance other than for local agricultural use	The culture could be substituted.
Changes in Do Minimum			

Implementation of the bus lanes and junction alterations would change the appearance
Impact
The impact would be neutral.
Mitigation Measures

Feature: Landcover			
Description			
<p>The area of the proposed Park and Ride site is dominated by improved grassland. There will be a complete loss of this habitat type in the proposed Park and Ride facility. There are a number of hedgerows and trees occurring that would be removed by the proposals. Even poor hedgerows may be important as habitat and foraging areas for other wildlife, therefore the loss of hedgerows would be a significant impact. The level of planting would probably more than compensates for the small number of hedges in the area, although the linking effect would be reduced by fewer continuous strips. Areas of new planting will, wherever possible, include planting of appropriate native species. The design will also ensure that habitat types are represented.</p> <p>Although there are subsidiary badger setts in the vicinity of the proposed Park & Ride site, it is proposed to retain the location of these setts. The major change of use of the site will have significant impact on the availability of foraging areas to the badgers. The loss of foraging area is not likely to be sufficient to render the territory untenable, but the proposals will result in considerable changes in foraging patterns.</p> <p>The loss of arable, improved grassland and hedgerow habitats will have an impact on certain species of common birds, which prefer these areas for nesting and foraging. The loss of hedgerow is likely to be compensated for by increased planting in other areas. The means that some bird species identified on the site would retain some breeding habitat. Appropriate planting and management regimes could produce an increase in suitable habitat for these species.</p>			
Scale it Matters	Rarity	Importance	Substitutability
The landcover of the predominantly rural land is typical to the arable fields within the local area	The landcover is typical of open fields	The landcover is in land of no special significance other than for local agricultural use	The landcover could be substituted.
Changes in Do Minimum			
Impact			
Mitigation Measures			

Feature: Summary of Character			
Description			
The relationship between primary characteristics and features and attributes of the landscape.			
Scale it Matters	Rarity	Importance	Substitutability
Changes in Do Minimum			
There would be few changes to the existing road network in the do minimum However, a likely increase in traffic density would have an impact on the setting of important landmark buildings and listed buildings.			
Impact			
Mitigation Measures			

Reference Source(s):

Hallam Fields, Birstall, Leicestershire, Environmental Statement, Jelson

Summary assessment score:

Neutral

Qualitative comments:

The design and layout of the proposed development and strategic landscaping proposals means that, after development, the site would not be significantly more visible than it is at present. The visual impact of the development will be protected by the ridgeline extending from the Icehouse Spinney to the A6 to the north and the dense vegetation to the west.

On balance therefore, the overall impact of the scheme on the landscape has been assessed as **neutral**.

Worksheet for Environment: Heritage of Historic Resources (Archaeology) - Plan Level

Feature: FORM	
Part 1 Description	
<p>One listed building has been identified to the east of the proposed site. This is a Grade II listed Icehouse, located in Icehouse Spinney. The setting of this building is not affected by this proposal.</p> <p>The bulk of significant archaeological evidence will survive as buried remains, foundations, surfaces, pits and other features. It is possible that upstanding remains will survive within existing buildings, particularly to the south of Baxter Gate.</p>	
Part 2	
Scale it Matters	Significance
Local to regional, as defined in Structure and Local Plan policies, in addition to PPG15 & 16.	The Grade II listed Icehouse dates back to late 18 th Century to early 19 th Century. This is likely to be unaffected by the proposals. A small section of the inhumation cemetery falls within the proposed Park & Ride site.
Part 3	
Rarity	Impact
The historic environment, represented as above ground historic structures and buried archaeological deposits represent a finite and diminishing resource.	Given the potential for sensitive archaeological remains, the scheme has a significant potential to affect buried remains.

Feature: SURVIVAL	
Part 1 Description	
<p>Construction work on Longslade School in 1958-60 will have significantly impacted upon the preservation of archaeological remains.</p> <p>The grade II listed Icehouse is located outside of the proposed site. Map evidence may suggest the building was on this site as early as the late 18th century.</p>	
Part 2	
Scale it Matters	Significance
Part 3	
Rarity	Impact

Feature: CONDITION	
Part 1 Description	
<p>Constant process of gradual loss due to the impact of redevelopment.</p> <p>Existing historic structure is in a poor to moderate condition.</p>	
Part 2	
Scale it Matters	Significance
Part 3	
Rarity	Impact

Feature: COMPLEXITY	
Part 1 Description	
Limited likelihood of complex archaeological deposits.	
Part 2 Scale it Matters	Significance
Part 3 Rarity	Impact

Feature: CONTEXT	
Part 1 Description	
The historic character the area has been significantly damaged by the creation of Longslade School.	
Part 2 Scale it Matters	Significance
Part 3 Rarity	Impact

Feature: PERIOD	
Part 1 Description	
The Grade II listed icehouse is of the later 18 th century to early 19 th Century. Excavations carried out in 1958-60 found Anglo Saxon brooches and Romano-British silver coins.	
Part 2 Scale it Matters	Significance
Part 3 Rarity	Impact

Reference Source(s):

Hallam Fields, Birstall, Leicestershire, Environmental Statement, Jelson

Summary assessment score:

Slight Adverse

Qualitative comments:

Although the archaeological assessment did not locate any known archaeological sites within the proposed Park and Ride site, the construction of this with its attendant car parking facilities and access road could have a potential impact.

Overall the scheme has been judged to have a potential **slight adverse** effect with respect to the heritage criteria.

Worksheet for Environment: Biodiversity – Plan Level

Feature: Grassland

Part 1 Description			
The area of the proposed Park and Ride site is dominated by improved grassland. There will be a complete loss of this habitat type in the proposed Park and Ride facility.			
Part 2			
Scale it Matters	Significance	Trend	Rarity
Local	Regional	Local	Not uncommon.
Part 3			
Neutral impact as it is of low value in ecological terms, but this area provides suitable habitat for some common species			

Feature: Hedgerows

Part 1 Description			
There are a number of hedgerows and trees occurring that would be removed by the proposals			
Part 2			
Scale it Matters	Significance	Trend	Rarity
Regional and local	Regional.	Conforms to Leicestershire and Rutland Local Biodiversity Action Plan	Areas of new planting will, wherever possible, include planting of appropriate native species
Part 3			
Significant impact the loss of hedgerows as even poor hedgerows may be important as habitat and foraging areas for other wildlife.			

Feature: Badger Setts

Part 1 Description			
Subsidiary badger setts in the vicinity of the proposed Park & Ride site to be retained in their existing.			
Part 2			
Scale it Matters	Significance	Trend	Rarity
Regional and local	Regional. Nationally Badgers are in decline	Conforms to Leicestershire and Rutland Local Biodiversity Action Plan	Not uncommon, but nationally in decline
Part 3			
Slight adverse impact as the loss of foraging area is not likely to be sufficient to render the territory untenable, but the proposals will result in considerable changes in foraging patterns.			

Feature: Other local wildlife sites

Part 1			
Description			
Adjacent and surrounding wildlife sites			
Part 2			
Scale it Matters	Significance	Trend	Rarity
		Regional significance	Moderately rare
Part 3			
Neutral impact providing sites are protected from run-off and disturbance during construction.			

Feature: Well established trees on A6 Leicester Road

Part 1			
Description			
Potential bat roosts and insect feeding/breeding site			
Part 2			
Scale it Matters	Significance	Trend	Rarity
Regional and local	Regional; Nationally bat species in decline	Conforms to Leicestershire and Rutland Local Biodiversity Action Plan	Not uncommon, but nationally a declining resource
Part 3			
Potential moderate adverse impact.			

Reference Source(s):

Hallam Fields, Birstall, Leicestershire, Environmental Statement, Jelson

Summary assessment score:

Slight Adverse

Qualitative comments:

The loss of arable, improved grassland and hedgerow habitats will have an impact on certain species of common birds, which prefer these areas for nesting and foraging. The loss of hedgerow is likely to be compensated for by increased planting in other areas. This means that some bird species identified on the site would retain some breeding habitat. Appropriate planting and management regimes could produce an increase in suitable habitat for these species.

Worksheet for Environment: Water Environment – Plan Level

Feature: Groundwater

Attributes/Services: Water Supply			
Quality			
Implementation of the proposed Park and Ride site will introduce impermeable areas. These areas generate more surface water runoff than previously catered for by the existing natural drainage system			
Scale	Rarity	Substitutability	Importance
Impact Magnitude		Significance	
Attributes/Services: Transport and dilution of waste products			
Quality			
Run-off from within the development will be collected in trapped gullies			
Scale	Rarity	Substitutability	Importance
Local	Not rare	Substitutable	Low
Impact Magnitude		Significance	
Negligible		Insignificant	
Attributes/Services: Value to economy			
Quality			
Little value			
Scale	Rarity	Substitutability	Importance
Local		Substitutable	Low
Impact Magnitude		Significance	
Negligible		Insignificant	
Attributes/Services: Biodiversity			
Quality			
Scale	Rarity	Substitutability	Importance
Local	Rare	Not substitutable	Low
Impact Magnitude		Significance	
Negligible		Insignificant	
Attributes/Services: Conveyance of flood flows			
Quality			
Scale	Rarity	Substitutability	Importance
Local			Low
Impact Magnitude		Significance	
Negligible		Insignificant	

Reference Sources:

Qualitative Comments:

Implementation of the proposed Park and Ride site will introduce impermeable areas. These areas generate more surface water runoff than previously catered for by the existing natural drainage

system. The run-off will be retained within balancing ponds so as to comply with specific mitigation measures set out by the Environment Agency.

Summary assessment score:

Neutral