Non-Technical Summary

**Introduction**

An application for detailed planning permission has been submitted to West Northamptonshire Development Corporation and Northamptonshire County Council for the proposed Sandy Lane Relief Road (SLRR) between A4500 Weedon Road and Berrywood Road, Northampton.

Halcrow Group Ltd has undertaken an Environmental Assessment of the scheme in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 and the Highways Agency Guidance, ‘Design Manual for Roads and Bridges (DMRB) Volume 11, Environmental Assessment’ (DoT, 1993 as amended). This non-technical summary briefly describes the proposals and summarises the Environmental Statement.

**The Site & Surrounding Area**

The application site occupies an area of approximately 9.43 hectares to the west of Northampton. The rural fringe, west of Northampton, has seen considerable change over the last decade with commercial, infrastructure and residential development having taken place on a large scale. The proposed road corridor is approximately 1.7km in length. The application site principally comprises of agricultural land use. Agricultural uses include a mixture of cereal crops and grazing land.

To the west of the application site lies the existing Sandy Lane, which connects the A4500 Weedon Road and Berrywood Road. To the west and north-west of Sandy Lane are areas of agricultural land that are largely used for grazing livestock. Further west of the application site lies the village of Harpole.

An existing Public Right of Way (KP16) runs through the application site traversing the boundary of South Northamptonshire from Larkhall Lane, west of the site, to the point that it connects to an additional Public Right of Way to the east.
To the north of the application lies Berrywood Road (a Roman Road) and the New Duston housing development. Land use to the north-west is agricultural with a number of farmsteads in the area.

To the east of the application site lies Berrywood Fields. Further east lies St Crispins housing development, which is currently under development, and Princess Marina.

The A4500 Weedon Road runs along the south of the application site. Further south lies the village of Kislingbury. Land use to the south is predominantly agricultural although industrial uses are located at the Swan Valley Business Park.

**The Proposed Scheme**

SLRR is located within both the South West District of Northampton and South Northamptonshire District. SLRR is key to providing a priority transport scheme that will support and manage growth in Northamptonshire and is identified in both the Northampton Borough Council Local Plan (1997) and the Milton Keynes and Southern District Sub-Regional Plan (2005).

SLRR will be a new road infrastructure linking the A4500 Weedon Road to the south with Berrywood Road to the north. SLRR will be classified as a Category A – local road, with 40mph restrictions and 7.3m wide carriageways. A 3m shared footway/cycleway will border the eastern carriageway, whilst a 1.8m footway will adjoin the western carriageway. One controlled crossing points will be provided that is suitable for pedestrians, cyclists and equestrians and three further crossing points suitable for pedestrians and cyclists. Street lighting will be provided along the full 1.7km length.

As part of the SLRR scheme, the existing Sandy Lane will be downgraded to discourage through traffic, including the closure of Sandy Lane to the north of T&S Threadgold Limited and Sandy Lane Nurseries. The Sandy Lane Link Road (SLRR) is a short section of single carriageway road which will connect the SLRR to the existing Sandy Lane to the west. This link will maintain local access and accommodate local journeys between Old Duston/Duston and Harpole.
The implementation of SLRR seeks to deliver the following objectives:

- Provide improved transport linkages between zones of residential development within the South West District;
- Facilitate access to approved employment areas at Swan Valley and Pineham;
- Provide a critical link between the proposed Cross Valley Link Road (CVLR) and Sandy Lane Improvement North (SLIN) schemes, improving orbital movements around Northampton;
- Provide future access to the Upton Lodge Park and Ride site to the west of SLRR, assisting the development of the public transport network in Northampton as a whole;
- Improved cycling and pedestrian access from the adjacent rural areas to Northampton;
- Provide traffic relief/bypass to the existing Sandy Lane, specifically in terms of HGV movements;
- Provide safety improvements on the basis of reduced traffic volumes on the existing Sandy Lane and the provision of sustainable cycle and pedestrian facilities; and
- Provide environmental improvements in respect of air and noise quality for residents of South View and those fronting the existing Sandy Lane (approximately 50 dwellings).

Alternatives to Development

A number of alternatives were considered, both in terms of alignment, location and engineering design, before deciding upon the Proposed Scheme. The Proposed Scheme is the end of several environmental studies that identified a number of environmentally sensitive sites and considerations that have helped to inform the road alignment.

Policies and Plans

A detailed review has been undertaken, to identify how the Proposed Scheme contributes to the achievement of the objectives of international, national, regional, county and local planning policies. This review has shown that the scheme
complies with a wide range of policies. This high degree of compliance is due to the fact that the Proposed Scheme is located within the Northampton growth area and is considered as essential infrastructure to support new development.

In addition, the Proposed Scheme relieves congestion on the Northampton road network and connects existing and proposed residential, employment, schools and community facilities, which again is in conformity with national, regional and local plans.

The principle area of conflict, with the policy and plan context, arises from the fact that the route of the Proposed Scheme passes through land designated as ‘Special Landscape Area’ and ‘area of Important Local Gaps’ in South Northamptonshire.

**Air Quality**

The Proposed Scheme has been assessed in relation to its potential impact on air quality. Local air quality and greenhouse gas emissions have been assessed in relation to changes in road traffic as a result of the scheme and the potential for construction dust has also been examined.

Existing air quality in the vicinity of the Proposed Scheme has been determined through a review of available air quality data and is currently considered to be good, with concentrations below national air quality objectives.

The potential air quality impacts of road-traffic associated with the Proposed Scheme have been assessed quantitatively at 12 receptor locations, which represent existing and proposed residential properties, where air quality impacts will be greatest. By analysing the existing air quality data in the area and predicting the increased traffic flows likely from the Proposed Scheme it was determined that national air quality objectives will not be exceeded as a result of the scheme and overall there will be a slight improvement in Air Quality, in particular for residents of Sandy Lane.

The construction works have the potential to create dust. During construction it will therefore be necessary to apply a package of mitigation measures to minimise dust emissions. Any impacts will be temporary and any events will be infrequent.
Cultural Heritage

A desk based assessment was undertaken to consider the impact upon the cultural heritage and archaeological receptors by the Proposed Scheme. The assessment has established a baseline of archaeological sites, Listed Buildings and historic landscape character units.

There are no Listed Buildings or Scheduled Ancient Monuments within the application site. There are, however, fourteen archaeological sites along the route of the Proposed Scheme that would result in a neutral to moderate adverse effect. The Proposed Scheme will have a neutral effect on the historic landscape character unit.

There is also the potential for further unknown sites to exist along the Proposed Scheme and the potential impact on these has been taken into account. A programme of archaeological evaluation, comprising geophysical survey and archaeological trial trenching, has been implemented along the length of the Proposed Scheme. Owing to farming constraints (harvesting of standing arable crops) within the surrounding area, the final results of the evaluation work will not fully inform this assessment, but will be added in as an addendum to this document at a later date. Based on the outcomes of this evaluation a mitigation strategy will be designed which will define the nature, extent and the survival of the known and unknown archaeological resource.

Biodiversity

An ecological assessment has been undertaken for the Proposed Scheme based on information obtained from desk-top studies, field surveys and consultations with relevant organisations.

The site is dominated by large arable fields and improved pasture supporting a limited number of species commonly associated with agricultural land. Hedgerows, plantation woodland, and a linear water feature provide habitat and species diversity.

The common pipistrelle bat was recorded foraging and commuting and a high and medium potential for bat roosts was identified. A number of badgers were recorded in the area and one main sett was identified adjacent to the Proposed Scheme. In total twenty-three species of birds were recorded as having territories within the study area. Three of these, Skylark, Song Thrush and Yellowhammer
were noted to be of National Conservation Concern. There was no evidence of Great Crested Newts, Water Voles or Reptiles within or surrounding the Proposed Scheme.

No sites of statutory conservation designation are located within or adjacent to the application site boundary.

As a result of the Proposed Scheme the major habitats to be lost are arable land, improved grassland and semi improved grassland. Small sections of hedgerow, classified as National Conservation Priority (HEGS), National BAP Priority Habitat and Important Hedgerow, will be lost. Eleven trees will be potentially lost to the Proposed Scheme. Out of these none are of veteran tree status, whilst two trees were considered to provide moderate potential to support bat roost.

Mitigation measures to compensate for the loss include: new hedgerows and shrub planting that will provide feeding habitats and potential nesting areas for bird species; the erection of ‘hop-overs’ to mitigate the severance of bat flight pathways along severed hedgerows; and badger underpasses and fencing to prevent road mortalities and planting for foraging.

**Landscape & Visual Effects**

A Landscape and Visual Impact Assessment was undertaken to identify the potential effects of the Proposed Scheme on the character of the surrounding area and on local views.

The assessment has identified a restricted landscape and visual impact (both direct and indirect) arising from the Proposed Scheme. The site and its immediate context reveals a landscape that is heavily influenced by Northampton’s urban fringe uses, is generally fragmented and characterised by intensive agricultural use. The valley slopes, although of value, are already visually affected by Northampton’s expanding urban edge, specifically the recent and ongoing developments at St Crispins. This is exacerbated somewhat by the urban fringe elements, within and on the edge of the valley, to include the A4500 Weedon Road and the M1 Motorway.

Features considered of landscape value are to be retained and protected. Although inevitably there would be some loss of hedgerow vegetation to allow for the road corridor, these losses are considered overall to be of minor significance. These
losses would be significantly mitigated by compensatory new planting providing a mix of landscape habitats. Overtime the proposed landscape structure will have beneficial effect, enhancing landscape character and nature conservation value.

The visual assessment identified a relatively small number of significant receptors, and a generally restricted visual envelope. This is due principally to the existing local screening features of Northampton’s urban edge and the local topography, which contains the area. Significant receptors are predominantly local and inevitably there will be a degree of initial adverse impact. Initial, visual impact from localised receptors would be mitigated by a significant landscape framework. Views to St Crispins clock tower, would for example, be safeguarded.

**Land Use**

Land surrounding the Proposed Scheme is principally used for agriculture; community use of it is confined to the Public Rights of Way which traverse the area. There are no permanent buildings within the site application area.

The Proposed Scheme will involve the landtake of approximately 9.43 ha of grade 3 agricultural land. This is in keeping with the Northampton Borough Concil Local Plan (1997) which includes a safeguarded route for the Proposed Scheme, through the area designated as ‘greenspace’, to the east of the scheme. The area of landtake, to the west of the scheme, although designated as a ‘Special Landscape Area’ and ‘Areas of Important Local Gaps’ is primarily used for agricultural activity.

**Noise**

The Proposed Scheme has been assessed with regard to construction noise and vibration, and road traffic noise and vibration from within the site affecting existing and proposed sensitive receptors. Noise levels were measured using standard methods at 10 identified sensitive receptors.

The consideration of construction noise levels has indicated a severe impact at a number of properties for the worst-case conditions. However, these conditions will apply for a limited period and typical noise levels during the construction works will lead to slight impacts well below the criteria of 75dB(A) used in the assessment. Mitigation measures will reduce these levels by approximately 5 to 10dB(A).
A reduction in traffic noise would arise as a result of the operation of the Proposed Scheme. Substantial benefits would be experienced at a limited number of properties in Vienne Close and Weggs Farm Road. For Sandy Lane substantial benefits would arise at 21 properties at the southern end. A substantial adverse impact would arise at 1 property on Sandy Lane where mitigation in the form of double glazing would be provided.

**Pedestrians, Cyclists, Equestrians and Community Effects**

Routes used by pedestrians, cyclists and equestrians to access community facilities have been identified and an assessment made of the effects of the Proposed Scheme on these.

The Proposed Scheme affects three Public Rights of Way, one of which traverses the scheme from west to east. Whilst the usage of these Public Rights of Way is low they are considered to be of high local importance. During construction Public Right of Way KP16 is likely to be subject to temporary closure causing disruption to users. A temporary diversion route will be provided during this period. As a result of the Proposed Scheme a number of enhancements are proposed including a new footpath on the western side and a combined footpath/cyclepath on the eastern side and the provision of crossing facilities. These enhancements are expected to result in significant benefits to non-motorised users (primarily pedestrians and cyclists), providing a safe north-south link which is separated from traffic.

**Vehicle Travellers**

The vehicle traveller assessment considers the effects of the Proposed Scheme on views from the road, driver stress and traveller care.

Driver stress during the period of construction would be unavoidable as traffic is managed to facilitate the most efficient and effective balance between the needs of traffic and construction. During the construction phase, there could be a temporary change to the road surface, which may reduce vehicle speed, causing congesting and frustration and thus increasing stress levels.

The Proposed Scheme would result in beneficial effects on levels of driver stress due to the significant improvement in terms of, enhanced highway design and safer driving conditions. Reduced frustration would result given the free flowing nature of traffic and improved journey times. Fear of accidents would decrease due to
seggregation of cyclists and pedestrians, good lighting and presence of signalised
junctions. In addition, the Proposed Scheme shall have beneficial effect on the
traveller care aspect post-construction due to improved provision for
pedestrians/cyclists, design of adequate signages and assuring route certainty for
travellers.

**Water Resources**

An assessment of the impacts of the Proposed Scheme on the water resources of
the site has been undertaken to consider flood risk, drainage, water quality and
associated ecological issues.

The route of the Proposed Scheme is located adjacent to an unnamed tributary of
the River Nene. The watercourse is not classified and as a result it is not regularly
monitored for quality by the Environment Agency. Overall water quality for the
River Nene where the tributary feeds into is graded as GQA B for the reach from
Bugbrooke to Wootton Brook.

The Proposed Scheme will have a minimal adverse impact upon the flow regime
and water quality of the tributary and River Nene, provided that Best Practice
Guidelines and the recommended mitigation measures are adopted during design
and construction.

The Proposed Scheme will increase the level of impermeable surfaces and changes
in land use will affect the drainage and rainfall runoff relationship on the site.
However, with the adoption of best practices during construction and operation,
including sustainable drainage systems, the Proposed Scheme will not have any
adverse effect upon the risk of flooding in the vicinity of the site.

There are unlikely to be any long term adverse impacts on groundwater, as any
discharge of surface water or road runoff into the ground will be tightly controlled
and treated.

**Ground Conditions**

An assessment has been undertaken to consider the geology and ground
conditions within the Proposed Scheme and whether there are any contaminated
land issues.
A ground investigation has been undertaken along the route of the Proposed Scheme. No designated sites of geological or geomorphologic interest have been identified and existing geology is of low importance. The proposed new road alignment is to be constructed across agricultural land and there are no significant areas of waste materials or contaminated land expected to be encountered.

The construction footprint would also include a haul road, site compound and stockpile areas and there would be some effects on soil structure in these areas during the construction phase due to compaction, loss of soil structure and erosion.

The surface level soils along the Proposed Scheme do not pose a risk to human health or to the environment. No remedial works are required in respect of containments within the surface level soils. However, the soils and geology below the Proposed Scheme have been found to contain elevated concentrations of naturally occurring arsenic. Soils excavated from the site must not be reused in areas which are likely to be developed for residential land use, allotments or schools. Based on the findings of this assessment there are not expected to be any permanent impacts from normal usage of the road on soils or geology.

**Disruption due to Construction**

The effects of construction activities have been assessed with regard to the impact of the Proposed Scheme on the local community and the ecological environment. These include the source and type of construction materials, the number and duration of heavy goods vehicles movements, the length of the construction programme and the site working hours. The preparation of a Contractor’s Environmental Management Plan will ensure that construction works do not adversely affect the environment.

**Cumulative Effects**

Cumulative effects assessment is the examination of the Proposed Scheme together with potential impacts from other adjacent developments. These adjacent developments are within 2km of the application site which was identified as the geographical boundary based upon a number of parameters such as available baseline data.

With the boundary established the assessment focussed specifically on sensitive receptors identified through the Environmental Impact Assessment of the SLRR
and examined the nature and significance of any potential impacts likely to arise on these receptors. These impacts were considered in a strategic context, allowing the identification of direct, cumulative, indirect and secondary effects.

The assessment of cumulative effects has been considered throughout the Environmental Impact Assessment process and, as such, many of the impacts highlighted have already been incorporated in the mitigation measures proposed.

**Environmental Impact Tables**

The DMRB assessment stipulates that for a proposed road scheme Environmental Impact Tables must be prepared. The aim of these tables is to summarise the main likely direct and indirect impacts of a road scheme taking into account mitigation measures proposed.

The Environmental Impact Tables are split into the following appraisal groups: Local People and their Communities; Travellers; The Cultural and Natural Environment and Policies and Plans.

**Residual Effects**

A summary of the residual environmental effects and corresponding mitigation measures are provided for both the construction and operational phases of the Proposed Scheme. Environmental impacts were predicted using current best practice and accepted methodology for Environmental Impact Assessments and with reference to definitive standards and legislation where available. Where it has not been possible to quantify impacts, qualitative assessments have been carried out, based on available knowledge and professional judgement.

**Summary**

The proposals to construct the Proposed Scheme have been the subject of an Environmental Assessment in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 and also considers the DMRB Guidance. A specialist assessment has been undertaken for each of the key environmental topic areas and for any significant negative impacts identified mitigation measures have been provided to either reduce or remove the impacts where possible. In some circumstances the opportunity for improvement has been highlighted and incorporated into the design of the
Proposed Scheme. Further details relating to the Environmental Assessment of the scheme are provided in the Environmental Statement.