

SECTION 4 : CONCLUSIONS

PART 1 : SUMMARY OF MITIGATION MEASURES

1.1 The following Table 4.1.1 summarises the mitigation measures that are included in the scheme design to reduce adverse environmental impacts, which have been described in more detail in Section 2.

Table 4.1.1: Summary of Mitigation Measures

Topic	Mitigation Measures
Air Quality	<p>The scheme could cause dust and other air quality impacts during construction, which would be controlled by the Construction Environmental Management Plan (CEMP).</p> <p>No mitigation measures are considered necessary once the road is open.</p>
Cultural Heritage	<p>The Scheme has been designed to avoid nationally important archaeological remains with a presumption towards preservation in situ. Where impact on archaeological and cultural heritage resources is unavoidable, mitigation by further investigation has been identified for 12 areas on a site-by-site basis to achieve preservation by record. The mitigation proposed is as follows:</p> <p><i>Strip, plan and excavate</i> is proposed in 7 locations. Topsoil will be stripped under supervision of an archaeologist; the features will be characterised and the scope of work agreed to excavate and record the findings.</p> <p><i>Full excavation</i> is proposed in one area south of Clifton affected by the offline route. Sufficient time has been allowed in the programme for this to be completed before the start of construction.</p> <p><i>A watching brief</i> will be undertaken by an archaeologist during topsoil strip on 4 sections of the route where there is a risk of features being found, with the contingency for partial excavation and recording, and possible recovery of material if any is found.</p> <p>No mitigation is necessary for historic buildings.</p> <p>To mitigate impacts on historic landscapes, sensitive scheme design including planting is proposed. Siting of an interpretation board overlooking Clifton Pasture and Barton Moor will be considered to aid understanding of the historic landscape here.</p>
Disruption due to Construction	<p>Measures will be detailed within the CEMP to limit impacts during construction. This will include pre-construction activities such as ecological surveys and method statements to control working practices during construction. There will be approved contractors delivery routes.</p> <p>Traffic Management (TM) and programming of works will be detailed within a buildability report. Night-time working and road closure requiring diversion will be minimised. A Traffic Safety and Control Officer (TSCO) will chair regular TM meetings with the Highways Agency, Police, local highways authorities and key stakeholders during the early part of construction.</p>

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Ecology and Nature Conservation	<p>The CEMP will identify risks of environmental harm and set out method statements, designs and measures to minimise the risk of pollution events or other environmental harm during the construction period. This would include protection of watercourses, sensitive ecological areas (including mitigation areas) and areas of retained trees and other vegetation.</p> <p>The CEMP will also specify a monitoring programme for sensitive ecological habitats and protected and/or important species. Monitoring would continue into the 5 year aftercare period.</p> <p>Emphasis has been placed in the scheme design on the improvement and creation of wildlife habitats. Main habitats created include more than 20 hectares (ha) of woodland and scrub, approximately 3ha of species-rich grassland, a further 9ha of pond/wetland habitats and over 10,000 linear metres of species-rich hedgerows. Sources of seed and plant stock would be native and of regional provenance where practicable. A source of trees from the National Forest local seed source programme has been identified which includes species such as oak, ash and rowan.</p> <p>No specific mitigation measures are necessary for statutory designated sites of nature conservation value.</p> <p>Wildlife underpasses will be provided beneath the road and boundary fencing will improve safety for protected species. Bat boxes would be provided along the River Soar.</p>
Landscape Effects	<p>The scheme has been designed to minimise impact on the landscape by following the route of the existing road or retaining roadside vegetation where possible. Replacement planting will be in keeping with the character of the landscape.</p> <p>Measures to reduce visual impact include putting the road in a cutting, retaining existing vegetation and screen mounds, and providing new dense planting for example at the large junctions. Lighting would be restricted to the junctions within the rural section, and would be designed to minimise light spillage.</p> <p>Detailed design would minimise impacts on the Clifton Village Green and Conservation Area. New planting in the urban section would include ornamental, non-native species and some larger trees than would be planted in the rural section. Improvements agreed with the University along the road frontage will enhance the townscape character there by providing new railings, trees, shrubs and entrance signs.</p>
Land Use	<p>The amount of land needed for the scheme has been limited to that which is required to build the road and other essential land needed to reduce its impact, for example new planting for landscape and ecological mitigation.</p> <p>The majority of land needed for the scheme is arable farmland. Impacts on farmers would be reduced by the provision of accommodation tracks and safer access. The Barton Lane Underbridge will reduce severance effects of the road and improve safety.</p> <p>Grasby Walk would be widened to provide improved access to Baird House Residential Home and Four Winds Rest Home.</p> <p>New junctions on the A453 will enable good access to adjacent land uses including the East Midlands Parkway Station and Nottingham Express Transit (NET) Park & Ride Site (should this be given approval).</p>

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Traffic Noise & Vibration	<p>Low noise surfacing would be used throughout the scheme to help reduce traffic noise.</p> <p>Noise reducing fencing would be erected at properties on Meden Close, Morgan Mews and Gavell Close, and on top of a 1.5 metre high mound around the Mill Hill Roundabout to reduce noise levels in the grounds of Lark Hill Retirement Village.</p>
Pedestrians, Cyclists, Equestrians and Community Effects	<p>A continuous route for Non Motorised Users (NMUs) will be provided alongside 90% of the scheme between Clifton and Long Lane, linking the nearby residential areas of Clifton and Long Eaton to key destinations such as the proposed East Midlands Parkway Station, East Midlands Airport, the Power Station and the proposed Nottingham Express Transit (NET) Park & Ride Site.</p> <p>The existing A453 between Thrumpton and Clifton would be de-trunked to provide a safer route for NMUs and the local community. Severance effects would be reduced by the provision of new grade-separated junctions across the widened road.</p> <p>The scheme also incorporates safe and convenient grade separated crossing points along the rural section where Public Rights of Way (PROW) cross the A453, as well providing additional controlled crossing points and additional pedestrian and cycle facilities in the urban section.</p>
Vehicle Travellers	<p>Views from the road have been considered during the design process, in particular within the rural section to retain open or intermittent views of the countryside for driver interest. The Environmental Masterplan illustrates the measures included in the scheme design as described under Landscape Effects above.</p> <p>Design measures will help to reduce traveller stress for users of the A453 and the surrounding local roads by reducing frustration currently caused by congestion, and by reducing the fear of potential accidents.</p>
Road Drainage and Water Environment	<p>The highway drainage scheme has been designed to control run-off from the road. In the rural section vegetated ditches and 5 balancing ponds would reduce flows. In the urban section vegetated ditches and oversize pipes would be used.</p> <p>Where necessary measures would be incorporated to limit pollutants entering the watercourses. These would include catchpits, bypass oil separators and penstock valves in manholes.</p> <p>Two areas of farmland would be slightly lowered to provide flood storage to compensate for the reduction in floodplain due to the new road embankment. This results in an overall reduction in flood risk.</p>
Geology and Contamination	<p>There are no geological Sites of Special Scientific Interest (SSSI) or Regionally Important Geological Sites (RIGS) close to the site. Mitigation to protect above ground important geological features is, therefore, not required.</p> <p>All suitable material removed during excavation for the road would be recycled for re-use during construction, to limit the number of lorry movements. The export of material offsite would be limited to approximately 500m³ of unsuitable contaminated soil. This would be taken to a local licensed waste disposal site.</p>
Soils and Agricultural Land Quality	<p>The scheme has been designed to limit the amount of farmland needed to build the road. Where possible the best and most versatile land has been avoided.</p> <p>Measures would be taken during construction to carefully store different</p>

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	types of soil separately for re-use within the scheme.
Impact on Policies and Plans	<p>The mitigation measures described above will help to ensure that any negative aspects of the scheme are outweighed by the positive aspects and the strong support for the road at the regional and local planning levels.</p> <p>The scheme maximises benefits in respect of the five Government objectives for transport, namely environment, safety, economy, accessibility and integration.</p>