

A12 Chelmsford to A120 widening scheme

TR010060

6.3 ENVIRONMENT STATEMENT APPENDIX 8.2 LANDSCAPE EFFECTS SCHEDULE

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A12 Chelmsford to A120 widening scheme

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1 Landscape effects schedule

1.1.1 This appendix provides an assessment of impacts on landscape character and features as a result of the proposed scheme and is to be read in conjunction with Chapter 8: Landscape and visual, of the Environmental Statement [TR010060/APP/6.1], and Figure 8.2 Local Landscape Character Areas [TR010060/APP/6.2].

Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
Braintree, Br	entwood, Cheln	nsford, Maldon	and Uttlesford Landscape Character Assessment (Chris Blandford Associates, 2006)		
A7 Lower Chelmer River Valley (directly affected)	Medium	Construction	Construction activity would largely be focussed along, and set within the context of, the existing A12 corridor and immediately adjacent to the eastern edge of Chelmsford, including Springfield Business Park. Removal of intermittent roadside vegetation east of the existing A12 and established highway planting south of J19 would make traffic flow on the existing A12 more prominent within the landscape. There would be localised removal of trees within the Chelmer and Blackwater Navigation Conservation Area east of the A12 to accommodate drainage proposals. Construction elements, such as the excavation of attenuation ponds and soil storage areas, would encroach on the low-lying landscape east of the existing A12 and within a localised part of the Chelmer and Blackwater Navigation Conservation Area. The wider landscape setting of Boreham House Registered Park and Garden and Boreham House (grade I listed) would be affected by construction activity, including the presence of construction machinery on haul roads, excavation of attenuation ponds, widening of the A12 carriageway and associated earthworks within A7 Lower Chelmer River Valley east of the existing A12, albeit within the context of the existing A12. The locally designated Green Wedge, south of Springfield Business Park and west of the existing A12, is outside the Order Limits and would not be directly affected by the proposed scheme. Indirect effects on the Green Wedge would be limited because the proposed scheme would be east of, and set within the context of, the existing A12. There would be temporary, localised, effects on tranquillity during construction, although effects would be limited because construction activity would be set within the context of the existing A12 and the urban edge of Chelmsford. Similarly, temporary lighting during construction would cause limited effects on the night-time character because of existing light pollution associated with Springfield Business Park, the urban edge of Chelmsford, traffic on the existing A12 and lightin	Moderate adverse	Moderate adverse
		Year 1 of operation – winter and summer	Loss of intermittent roadside vegetation to accommodate online widening east of the existing A12 and vegetation south of J19, including localised tree loss within the Chelmer and Blackwater Navigation Conservation Area east of the A12, would exacerbate the prominence of the existing A12 corridor and traffic flow within the landscape. The loss of vegetation east of the existing A12 would affect the wider landscape setting of Boreham House Registered Park and Garden and Boreham House (grade I listed) to a limited degree given the context of the existing A12. Attenuation ponds would not be out of character within the low-lying Chelmer River Valley or the Chelmer and Blackwater Navigation Conservation Area, which accommodate a number of existing waterbodies. However, the attenuation ponds and access tracks would present slight changes to land use and field pattern. Ecology mitigation areas east of the A12 and south of J19, would also contribute to change in land use from arable to grassland. Effects on tranquillity would be limited during operation because the online widening would be set within the context of the existing A12 and the urban edge of Chelmsford. Similarly, additional lighting on the slip road to the south of J19 would cause limited effects on the night-time character because of existing light pollution associated with Chelmsford, traffic on the existing A12 and lighting at J19. Overall, in year 1 the proposed scheme would result in a slight change to the landscape character within a localised part of A7 Lower Chelmer River Valley, with the presence of uncharacteristic features described above albeit within the context of the existing A12.	Minor adverse	Slight adverse



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
		Year 15 of operation – winter and summer	Mitigation planting, including hedges with intermittent trees along the existing A12 corridor, woodland planting of trees and shrubs, wet woodland and intermittent trees and shrubs around the attenuation ponds, would have established to integrate the widened A12 corridor and additional lighting on the slip road to the south of J19 into the landscape, to integrate the attenuation ponds and access tracks into the surrounding landscape structure and to mitigate the localised loss of trees within the Chelmer and Blackwater Navigation Conservation Area. Established tree planting within the ecological mitigation area south-west of Boreham House Registered Park and Garden would add to the existing mature vegetation within and west of the registered parkland to reinstate the wider landscape setting of Boreham House Registered Park and Garden and Boreham House (grade I listed) and provide screening of the existing A12 from the registered parkland and listed building. Effects on tranquillity and on the night-time character would be as described above for year 1. Overall, in year 15 the proposed scheme would result in very minor residual change to the landscape character within a localised part of A7 Lower Chelmer River Valley, therefore the significance of effect would be slight adverse rather than neutral.	Negligible adverse	Slight adverse
A9 Blackwater River Valley (directly affected)	Medium	Construction	Construction activity, including major earthworks for the online widening south of Witham and South of Kelvedon, and the construction of the offline bypass between J22 and J23, between Witham and Kelvedon, would require extensive removal of vegetation including established highway planting along the existing A12 to accommodate widening, field boundary vegetation to accommodate the offline bypass and woodland south of Rivenhall End to construct Braxted Road Overbridge. Vegetation loss would also include the removal of two potential vetera willow trees to accommodate the offline bypass at J22 and north of the existing A12 near the Essex County Fire and Rescue Service Headquarters. Removal of vegetation would make the existing online highway infrastructure and traffic flow more prominent within the landscape. There would be extensive disruption during construction within A9 Blackwater River Valley caused by the excavation of borrow pit I and parts of borrow pits F and J and the presence of aggregate processing facilities, excavation of attenuation ponds and flood plain compensation area, the presence of a logistics yard south-west of Witham, the J22 north main compound east of Witham, half roads, laydown areas and soil storage areas. Construction of the western part of the offline bypass between J22 and J23, construction of J22, and the J22 north main compound would add new uncharacteristic conspicuous elements east of Witham, although in the context of existing large buildings at the Western Industrial Estate and mineral extraction activities at Colemans Farm Quarry. Construction of Braxted Road Overbridge and associated side roads, construction of the eastern part of the offline bypass between J22 and J23, construction of Rivenhall Brook Culvert and Snivellers Lane Bridge and widening of Cranes Bridge would add uncharacteristic, conspicuous elements east of Rivenhall End. Demolition of Highfield Bridge, construction of Highfields Overbridge replacement, demolition of Ewell Bridge and construction of Ewell Overb	Major adverse	Large



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
			Overall, during construction there would be large scale disruption to the landscape character of A9 Blackwater River Valley with the addition of numerous temporary, uncharacteristic and conspicuous elements described above and the loss of two potential veteran trees. The significance of effect would be large adverse rather than moderate adverse because the disruption would affect the landscape surrounding the existing A12 for the construction of the offline bypass between J22 and J23, excavation of borrow pits I and J and presence of the J22 north main compound.		
		Year 1 of operation – winter and summer	Whilst online widening south of Witham and east of Kelvedon would be set within the existing A12 corridor, loss of vegetation would exacerbate the prominence of the highway infrastructure and traffic flow within the landscape. Major proposed structures including J22, the offline bypass between J22 and J23 north-east of Witham, the realignment of local roads such as Braxted Road and introduction of new overbridges including Gershwin Boulevard Bridge south of Witham and Snivellers Lane Bridge north-east of Rivenhall End would exacerbate the extent of highway infrastructure and the presence of elevated conspicuous elements within the low-lying valley landscape. The offline bypass between J22 and J23 would run parallel to the existing A12, therefore broadening the overall extent of the highway corridor, enclosing land in-between and affecting land use and field pattern south of the existing A12 between Witham and east of Rivenhall End, in the context of mineral extraction at Coleman's Farm Quarry, and north of the existing A12 between east of Rivenhall End and Kelvedon. Attenuation ponds and waterbodies within the restored borrow pits would not be out of character within the low-lying Blackwater River Valley. However, new waterbodies would present changes to land use and field pattern, and the access tracks would introduce new and uncharacteristic features within the landscape. Ecology mitigation areas south of Witham and west of Rivenhall End, would also contribute to change in land use from arable to grassland. There would be limited effects on tranquillity and the night-time character along the existing A12 corridor during operation because of the presence of the existing highway infrastructure and traffic flow, and urban areas including Witham and Kelvedon. However, J22, the realignment of Braxted Road and the offline bypass between J22 and J23 would encroach on the landscape surrounding the existing A12, increasing the extent of highway infrastructure and affecting tranquillity within parts of A9 Blackwater R	Major adverse	Large adverse
		Year 15 of operation – winter and summer	Mitigation planting would have established to integrate the widened sections of the existing A12 corridor back into the landscape. Woodland planting of trees and shrubs, intermittent trees and shrubs, individual trees and hedges with intermittent trees along the offline bypass between J22 and J23 and around J22 and Braxted Road Overbridge, would also have established to help integrate the proposed scheme, realigned local roads and attenuation ponds and access tracks into the landscape. Waterbodies within the restored borrow pits would remain noticeable, although mitigation planting would have established making the edges of the waterbodies more natural and integrating them into the landscape along the existing A12. Other residual effects would comprise the increased extent of highway infrastructure, the subsequent change to land use and field pattern, effects on tranquillity and night-time character, the elevated nature of proposed elements within the low-lying landscape and permanent removal of two potential veteran trees. Effects on tranquillity and on the night-time character would be as described above for year 1. Overall, in year 15 the proposed scheme would cause noticeable residual change to the landscape character of A9 Blackwater River Valley with the presence of uncharacteristic and noticeable features described above and the loss of two potential veteran	Moderate adverse	Moderate adverse



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
Landscape sub area A9A (directly affected)	Medium	Construction	Construction activity, including major earthworks for the online widening south-east of Witham and south of Kelvedon, would require partial removal of established highway planting along the existing A12 corridor. A potential veteran oak tree would be lost east of Witham to accommodate a haul route that would run parallel with and east of the A12. Removal of vegetation would make the existing online highway infrastructure and traffic flow more prominent within the low-lying valley landscape. Construction activity would largely be focussed along, and set within the context of, the existing A12 corridor. However, some construction activities, including soil storage areas, excavation of attenuation ponds, laydown areas and haul roads would be located outside the existing A12 corridor, and would introduce uncharacteristic noticeable elements within the landscape adjacent to the existing highway corridor. Landscape effects on the Blackwater Rail Trail Country Park, which runs beneath the existing A12 at Witham, would be relatively limited north of Blue Mills Hill because the carriageway at Benton Bridge would be widened within the extents of the existing deck. Whetmead Local Nature Reserve would be directly affected by construction activity including vegetation loss, lay down areas and haul roads. Construction activity, including movement of vehicles along haul roads, would temporarily affect the tranquillity within localised areas including within part of the Blackwater Rail Trail Country Park close to the existing A12 and Whetmead Local Nature Reserve, although effects on tranquillity would be limited given the proximity to the existing A12. Temporary lighting during construction would cause localised effects on the night-time character, including within Whetmead Local Nature Reserve and the Blackwater Rail Trail Country Park, although construction lighting would be perceived in the context of existing lighting associated with traffic on the existing A12 and settlement along Maldon Road. Construction activity as	Major adverse	Large adverse
		Year 1 of operation – winter and summer	Online widening within landscape sub area A9A would be set within the context of the existing A12 corridor, although partial loss of vegetation would exacerbate the prominence of highway infrastructure and traffic flow within the valley landscape. The online widening on embankment over the River Blackwater, the raised realignment of Maldon Road and Highfields Overbridge replacement would exacerbate the presence of elevated structures within a localised part of the low-lying valley landscape. Attenuation and ecology ponds would not be out of character within the low-lying Blackwater River Valley. However, the attenuation and ecology ponds and access tracks would present changes to land use and field pattern, and the access tracks would introduce new and uncharacteristic features within the landscape albeit within the context of the existing A12. An ecology mitigation area south-west of Kelvedon, would also contribute to change in land use from arable to grassland. There would be limited effects on tranquillity and the night-time character during operation because of the presence of the existing highway infrastructure and traffic flow along the existing A12, and the urban area of Witham. The gas main diversion would present changes to the pattern of the low-lying valley landscape as a result of loss of woodland and characteristic willow plantations along the River Blackwater. Loss of vegetation associated with the gas main diversion on the western side of Benton Hall Golf & Country Club and within the Blackwater Rail Trail Country Park south of Blue Mills Hill would also affect the character of the country park in this location. Overall, in year 1 the proposed scheme would result in large scale change to the landscape character of landscape sub area A9A due to the loss of characteristic features and the addition of temporary, uncharacteristic noticeable elements described above, and the loss of a potential veteran tree. The significance of effect would be large adverse rather than moderate adverse because the	Major adverse	Large adverse



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
		Year 15 of operation – winter and summer	Mitigation planting along the existing A12 corridor, including woodland planting of trees and shrubs along the embankment west of Whetmead Local Nature Reserve and intermittent trees and shrubs south of Kelvedon, would have established to integrate the widened section of the highway corridor back into the valley landscape, and to help integrate the realigned Maldon Road and Highfields Overbridge replacement, attenuation ponds and access tracks into the surrounding landscape. However, the online widening on embankment over the River Blackwater, the raised realignment of Maldon Road, and Highfields Overbridge replacement would continue to exacerbate the presence of elevated structures within a localised part of the low-lying valley landscape. The gas main diversion easement would restrict the capacity to plant trees on the embankment west and south-west of Whetmead Local Nature Reserve. However, lost vegetation would be replaced with woodland planting of trees and shrubs along the embankment where practicable and natural regeneration of scrub, which would help to integrate the widened section of the highway corridor back into the landscape. The gas main diversion easement would also restrict the capacity to reinstate woodland and willow plantation within the River Blackwater Valley, trees within Benton Hall Golf & Country Club and the Blackwater Rail Trail Country Park, resulting in residual change to the character of the landscape. Effects on tranquillity and on the night-time character would be as described above for year 1. Overall, in year 15 there would be a noticeable residual change to the landscape character within a localised part of landscape sub area A9A, with the presence of uncharacteristic, noticeable features described above set within the context of the existing	Moderate adverse	Moderate adverse
B17 Terling Farmland Plateau (indirectly affected)	Medium	Construction	B17 Terling Farmland is located outside the Order Limits and would not be directly affected by the proposed scheme. The Great Eastern Main Line (GEML) railway corridor north of the existing A12 and Hatfield Peverel and south of B17 Terling Farmland Plateau would largely physically separate B17 Terling Farmland and construction activity. The GEML railway corridor is generally well vegetated and, combined with built development at Hatfield Peverel and other intervening vegetation, would largely restrict intervisibility between B17 Terling Farmland and construction activity along the existing A12 corridor. However, construction activity in the adjacent landscape to the south of the GEML railway corridor, including two storey buildings and asphalt batching facilities, construction lighting at J20b main compound and the presence of aggregate processing facilities within borrow pit E, would be present. A short section of construction route would be located along Terling Road north of Hatfield Peverel and on the southern periphery of B17 Terling Farmland Plateau, and whilst along an existing public highway, additional construction traffic would be present. Additional traffic along Terling Road and construction elements south of the GEML railway would result in limited indirect effects on tranquillity and the night-time character during construction due to the existing context of residential settlement at Hatfield Peverel. During construction there would be minor temporary alteration to the landscape character of B17 Terling Farmland Plateau. The significance of effect would be neutral rather than slight adverse because the landscape character would be indirectly affected.	Negligible adverse	Neutral
		Year 1 of operation – winter and summer	B17 Terling Farmland would not be directly affected, and there would be limited intervisibility between B17 Terling Farmland and the proposed scheme. In year 1, the proposed scheme would result in no noticeable alteration to the landscape character of B17 Terling Farmland Plateau.	No change	Neutral
		Year 15 of operation – winter and summer	As above for year 1.	No change	Neutral
B18 Silver End Farmland Plateau (indirectly affected)	Medium	Construction	B18 Silver End Farmland Plateau is located outside the Order Limits and would not be directly affected by the proposed scheme. The GEML railway corridor north of the existing A12 would physically separate B18 Silver End Farmland Plateau and construction activity. Intervening vegetation would also restrict intervisibility between B18 Silver End Farmland Plateau and construction activities. During construction, there would be no noticeable alteration to the landscape character of B18 Silver End Farmland Plateau.	No change	Neutral



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
		Year 1 of operation – winter and summer	B18 Silver End Farmland Plateau would not be directly affected, and there would be limited intervisibility between B17 Terling Farmland and the proposed scheme. In year 1, the proposed scheme would result in no noticeable alteration to the landscape character of B18 Silver End Farmland Plateau.	No change	Neutral
		Year 15 of operation – winter and summer	As above for year 1.	No change	Neutral
B19 Langley Green		Construction	Construction activity, including major earthworks for the construction of the western part of the offline bypass between J24 and J25, demolition of Threshelfords Bridge, construction of Prested Hall Overbridge and Easthorpe Road Overbridge and the realignment of the access to Prested Hall and Easthorpe Road, would require partial removal of field boundary vegetation north-east of Feering. Vegetation removal would include loss of vegetation which forms an avenue along the driveway to Prested Hall which forms part of the setting and distinctive access to Prested Hall (grade II listed building). Excavation of attenuation ponds, presence of a number of soil storage areas, laydown area and Easthorpe Road satellite compound would add new, uncharacteristic, conspicuous elements to the landscape north-east of Feering, although construction elements would largely be east of the existing A12 and would be partly set within the context of the existing A12 corridor. There would be limited effects during construction on tranquillity and the night-time character along the existing A12 corridor where the realigned access to Prested Hall Overbridge and Easthorpe Road Overbridge would tie into the existing A12, because of the presence of the existing highway infrastructure and traffic flow. However, construction activity within the wider landscape slightly away from the existing A12 corridor, for the construction of part of the offline bypass between J24 and J25, Prested Hall Overbridge and Easthorpe Road Overbridge and the realignment of the access to Prested Hall and Easthorpe Road, would affect the tranquillity and night-time character within part of B19 Langley Green Farmland Plateau. Overall, during construction there would be large scale alteration to the existing landscape character of B19 Langley Green Farmland Plateau with the addition of numerous temporary, uncharacteristic, conspicuous elements described above. The significance of effect would be large adverse rather than moderate adverse because the alteration woul	Major adverse	Large adverse
Farmland Plateau (directly affected)	Medium	Year 1 of operation – winter and summer	The western part of the offline bypass between J24 and J25 would exacerbate the extent of highway infrastructure within the landscape north-east of Feering and affect land use and field pattern east of the existing A12, particularly because it would run parallel with the existing A12 therefore broadening the overall extent of the highway corridor in this location and enclosing land inbetween. The ecology mitigation area east of the access to Prested Hall, would also contribute to the change in land use from arable to grassland. The realigned, elevated, access to Prested Hall and the realigned Easthorpe Road would further add to field severance and, along with elevated parts of the offline bypass between J24 and J25 and overbridges, would be at odds with the relatively flat landform. The offline bypass between J24 and J25 would sever the distinctive driveway/avenue to Prested Hall and, along with the elevated Prested Hall Overbridge, would affect the wider setting of Prested Hall. Numerous attenuation and ecology ponds would form uncharacteristic elements within the plateau landscape and, along with the required access tracks, would cause further disruption to the landscape pattern. There would be limited effects on tranquillity and the night-time character along the existing A12 corridor during operation because of the presence of the existing highway infrastructure and traffic flow. However, the offline bypass between J24 and J25 would encroach on the landscape surrounding the existing A12, increasing the extent of highway infrastructure and affecting tranquillity within parts of B19 Langley Green Farmland Plateau. Lighting from traffic on the offline bypass between J24 and J25, new lighting at the roundabout introduced north of the driveway/avenue to Prested Hall would be perceived in the context of existing highway infrastructure and settlement along New Lane. Overall, in year 1 the proposed scheme would result in large scale change to the existing landscape character of B19 Langley Green Farmland Plateau	Major adverse	Large adverse



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
		Year 15 of operation – winter and summer	Mitigation planting, including woodland planting of trees and shrubs and tall screen planting along the offline bypass between J24 and J25, intermittent trees and shrubs and individual trees at Prested Hall Overbridge, individual trees along the realigned Easthorpe Road and intermittent trees and shrubs and individual trees around attenuation ponds, would have established to help integrate the proposed scheme into the surrounding landscape. Intermittent trees and shrubs and woodland planting of trees and shrubs would help to restore the landscape along decommissioned sections of highway east of Feering. Woodland planting of trees and shrubs would help to integrate the new lighting at the roundabout introduced north of Easthorpe Road Overbridge. However, the increased extent of highway infrastructure north-east of Feering, the subsequent change to land use and field pattern, effects on tranquillity and night-time character as described above for year 1, the elevated nature of some proposed elements within the relatively flat plateau landscape, and severance of the driveway/avenue to Prested Hall would result in noticeable residual change to the existing landscape character. Overall, in year 15 the proposed scheme would cause noticeable residual change to the landscape character of B19 Langley	Moderate adverse	Moderate adverse
B21 Boreham Farmland Plateau (directly affected)	Medium	Construction	Construction activity at J19, including the widening of Boreham Bridge and construction of Paynes Lane Bridge, would require limited removal of vegetation because some vegetation around J19 would already have been removed as part of works associated with Boreham interchange for the Beaulieu Park Development. However, removal of part of a group of trees of Tree Preservation Order (TPO) status along Main Road (B1137) and an individual horse chestnut tree of TPO status south of Main Road along the frontage of Boreham House Registered Park and Garden, south-east of J19, would be required. Removal of vegetation would make the highway infrastructure and traffic flow slightly more prominent within the landscape at J19. The satellite compound at J19, laydown areas, soil storage areas and excavation of attenuation ponds would add new, uncharacteristic, noticeable elements east of J19 albeit in the context of existing highway infrastructure. There would be a direct impact on a localised part of Boreham House Registered Park and Garden at its entrance, with vegetation removal including removal of the horse chestnut tree of TPO status along Main Road (B1137) and construction works to widen Main Road within the boundary of the registered park and garden. Construction vehicles along Main Road and construction activity at J19 would affect the landscape setting of Boreham House Registered Park and Garden and Boreham House (grade I listed) by causing disruption to the landscape and presenting uncharacteristic elements, albeit within the context of the existing highway infrastructure. The existing A12 corridor between Boreham and Crix Bridge would not be affected. However, some localised removal of established highway planting may be required for signage upgrading. Major earthworks for the widening of the carriageway between J20a and J20b and construction of retaining walls approximately between Bury Lane Bridge and Wellington Road Bridge at Hatfield Peverel would require large scale removal of established highway planting. Th	Major adverse	Large



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
			perceived from residential properties adjacent to the existing A12 corridor. Construction activity would also extend into the wider landscape away from the highway corridor west and particularly east of Hatfield Peverel for the construction of J21, excavation of borrow pits and accommodation of construction compounds. This would erode the rural character and impact on tranquillity and the night-time character locally, although effects would be limited due to the adjacent urban areas of Hatfield Peverel and Witham. Overall, during construction there would be large scale alteration to the existing landscape character of B21 Boreham Farmland Plateau with the addition of numerous temporary, uncharacteristic, conspicuous elements described above and the loss of a group of TPO trees, an individual horse chestnut tree of TPO status and a potential veteran tree. The significance of effect would be large adverse rather than moderate adverse because the alteration would affect the landscape surrounding the existing A12 for the construction of J21, excavation of borrow pits E and F and presence of J20b main compound and asphalt batching facilities.		
		Year 1 of operation – winter and summer	The upgraded J19, including construction of Paynes Lane Bridge, online widening between Crix Bridge west of J20a and Witham, Bury Lane Overbridge replacement, Station Road Overbridge replacement, and Wellington Road Overbridge would be set within the context of the existing A12 corridor, although loss of vegetation and retaining walls approximately between Bury Lane Overbridge replacement and Wellington Road Overbridge at Hatfield Peverel would exacerbate the prominence of the existing A12 corridor and traffic flow within the landscape. There would be a direct impact on a localised part of Boreham House Registered Park and Garden at its entrance, with vegetation loss along Main Road (B1137) and physical encroachment of Main Road across the entrance to the formal landscape. The encroachment of Main Road across the entrance to the formal landscape. The encroachment of Main Road across the entrance to the formal landscape. The encroachment of Main Road across the entrance to the formal landscape. The encroachment of Main Road across the entrance to the formal landscape. The encroachment of Main Road would also affect the landscape setting of Boreham House (grade I listed), albeit within the context of the existing highway infrastructure. J21, including the Hatfield Road Overbridge, would exacerbate the extent and prominence of highway infrastructure within the landscape east of Hatfield Peverel and affect land use and field pattern to the north and south of the existing A12. Ecology mitigation areas north-east of J19, west of Hatfield Peverel, north-east and south-east of J21, would also contribute to change in land use from arable to grassland. Numerous attenuation ponds, and ecology ponds and waterbodies within the restored borrow pits would not be out of character within the plateau landscape which includes a number of existing waterbodies, although they would cause some further change to the landscape pattern. There would be limited effects during operation on tranquillity and the night-time character along t	Major adverse	Large adverse



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
		Year 15 of operation – winter and	Mitigation planting including woodland planting of trees and shrubs, tall screen planting and hedges with intermittent trees would have established to integrate the widened section of the existing A12 corridor into the landscape, although the retaining walls approximately between Bury Lane Overbridge replacement and Wellington Road Overbridge at Hatfield Peverel, would restrict replacement of trees. Mitigation planting, including woodland planting of trees and shrubs around J19 and J21, would also have established to help integrate the junctions into the landscape. New woodland planting of trees and shrubs, hedges with intermittent trees and individual trees would help integrate attenuation and ecology ponds and access tracks into the landscape. Whilst the landscape is characterised by the presence of a number of existing ponds, waterbodies within the restored borrow pits would cause a noticeable residual change in land use. Effects on tranquillity and on the night-time character would be as described above for year 1. The increased extent of highway	Moderate adverse	Moderate adverse
		summer	infrastructure at J21, including additional lighting, would add to the change in land use and field pattern east of Hatfield Peverel. The loss of TPO trees and the potential veteran tree south of the existing A12, south-west of Witham, and physical encroachment within a localised part of Boreham House Registered Park and Garden at its entrance would be permanent.		
			Overall, in year 15 the proposed scheme would cause noticeable residual change to the landscape character of B21 Boreham Farmland Plateau, with the presence of uncharacteristic, noticeable elements described above and the loss of a group of TPO trees, an individual tree of TPO status and a potential veteran tree.		
		Construction	Vegetation loss for the excavation of borrow pit J would be limited because excavation would be within open arable farmland between retained vegetation belts, although construction of J24 (largely within the adjacent landscape) would necessitate the removal of a potential veteran oak tree at the northern end of a field boundary hedgerow on the periphery of F3 Totham Wooded Farmland. Extensive excavation of borrow pit to the south-east of Kelvedon, presence of aggregate processing facilities within the borrow pit area, laydown area, soil storage areas and movement of vehicles along the haul roads would introduce uncharacteristic noticeable elements within the undulating arable fields west of Inworth Road (B1023). Construction activity would erode the rural character and affect the tranquillity and the night-time character within a localised part of F3 Totham Wooded Farmland to the south of the existing A12.	Moderate adverse	Moderate adverse
			Overall, during construction there would be partial alteration to the existing landscape character of F3 Totham Wooded Farmland with the addition of temporary, uncharacteristic, noticeable elements described above and the loss of a potential veteran tree.		
F3 Totham Wooded Farmland (directly affected)	Medium	Year 1 of operation – winter and summer	Waterbodies within restored borrow pit J would cause noticeable change to the landscape pattern and land use within F3 Totham Wooded Farmland and would present uncharacteristic features within the landscape. There would be limited effects during operation on tranquillity south of the widened A12 corridor and south of J24 because of the presence of the existing highway infrastructure within the landscape, and because the widened A12 carriageway and new J24 would largely be within cutting. However, new lighting at J24, would have an adverse effect on the night-time character locally. Overall, in year 1 the proposed scheme would result in partial change to the existing landscape character of F3 Totham Wooded Farmland with the presence of uncharacteristic and noticeable elements described above and the loss of a potential veteran tree.	Moderate adverse	Moderate adverse
		Year 15 of operation – winter and summer	Mitigation planting would have established to help integrate the waterbodies within restored borrow pit J into the surrounding landscape. Individual trees along the J24 slip road would also help integrate the highway infrastructure into the landscape. However, large waterbodies as well as new lighting at J24, largely within the adjacent landscape, would still present uncharacteristic features within the arable landscape. The loss of the potential veteran tree on the periphery of F3 Totham Wooded Farmland would be permanent. Effects on tranquillity and on the night-time character would be as described above for year 1.	Moderate adverse	Moderate adverse
			Overall, in year 15, the proposed scheme would result in partial residual change to the existing landscape character of F3 Totham Wooded Farmland with the presence of uncharacteristic, noticeable features described above and the loss of a potential veteran tree.		



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect		
Colchester Bo	Colchester Borough Landscape Character Assessment (Chris Blandford Associates 2005)						
A2 Wooded Roman River Valley (indirectly affected)	Medium	Construction	A2 Wooded Roman River Valley is located outside the Order Limits and would not be directly affected by the proposed scheme. The settlement of Copford and intervening vegetation would physically separate A2 Wooded Roman River Valley and construction activity and restrict intervisibility. During construction, there would be no noticeable alteration to the landscape character of A2 Wooded Roman River Valley.	No change	Neutral		
		Year 1 of operation – winter and summer	A2 Wooded Roman River Valley would not be directly affected, and there would be limited intervisibility between A2 Wooded Roman River Valley and the proposed scheme. In year 1, the proposed scheme would result in no noticeable change to the landscape character of A2 Wooded Roman River Valley.	No change	Neutral		
		Year 15 of operation – winter and summer	As above for year 1.	No change	Neutral		
	Medium	Construction	A5 Colne River Valley Slopes is located outside the Order Limits and would not be directly affected by the proposed scheme. The distance, combined with intervening vegetation and built development within Eight Ash Green, would restrict intervisibility between A5 Colne River Valley Slopes and construction activity. During construction, there would be no noticeable alteration to the landscape character of A5 Colne River Valley Slopes.	No change	Neutral		
A5 Colne River Valley Slopes (indirectly affected)		Year 1 of operation – winter and summer	A5 Colne River Valley Slopes would not be directly affected, and there would be limited intervisibility between A5 Colne River Valley Slopes and the proposed scheme. In year 1, the proposed scheme would result in no noticeable change to the landscape character of A5 Colne River Valley Slopes.	No change	Neutral		
		Year 15 of operation – winter and summer	As above for year 1.	No change	Neutral		
B2 Easthorpe Farmland Plateau (directly affected)	Medium		Construction activity, including major earthworks for the eastern part of the offline bypass between J24 and J25, construction of Wishingwell Overbridge, realignment of Easthorpe Road, realignment of the access to Easthorpe Green and the access to Marks Tey Hall, would require partial removal of field boundary vegetation east of the existing A12 between Easthorpe Road and Marks Tey Hall. The presence of Easthorpe Road satellite compound including concrete batcher to the north of Easthorpe Road close to the existing A12 and J25 satellite compound north of Marks Tey Hall, laydown and soil storage areas, excavation of attenuation and ecology ponds and floodplain compensation areas would add new, uncharacteristic, conspicuous elements within the arable landscape east of the A12, south and east of Marks Tey.				
		Construction	There would be limited effects during construction on tranquillity and the night-time character along the existing A12 corridor, because of the presence of the existing highway infrastructure and traffic flow and urban areas including Marks Tey and Copford. However, construction within the wider landscape slightly away from the existing A12 corridor, for the construction of the eastern part of the offline bypass between J24 and J25, Easthorpe Road Overbridge and Wishingwell Overbridge, would affect the tranquillity and night-time character within part of B2 Easthorpe Farmland Plateau. Overall, during construction there would be large scale alteration to the existing landscape character of B2 Easthorpe Farmland Plateau with the introduction of numerous temporary, uncharacteristic, conspicuous elements described above. The significance of effect would be large adverse rather than moderate adverse because the alteration would affect the landscape surrounding the existing A12 for the construction of the offline bypass between J24 and J25.	Major adverse	Large adverse		



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
		Year 1 of operation – winter and summer	The eastern part of the offline bypass between J24 and J25 would exacerbate the extent of highway infrastructure within the landscape and affect land use and field pattern, particularly because it would run parallel with the existing A12 therefore broadening the overall extent of the highway corridor in this location and enclosing land in-between. Ecology mitigation areas south of Marks Tey would also contribute to change in land use from arable to grassland. Realigned local access roads would contribute towards field severance. Raised realigned access roads, along with Easthorpe Road Overbridge, Wishingwell Overbridge, Potts Green Bridge, acoustic bunds north of Easthorpe Green, east of Doggets Hammer Farm and west of Marks Tey Hall and localised parts of the offline bypass between J24 and J25 where it is raised, would be at odds with the relatively flat plateau landform and would form uncharacteristic, noticeable elements within the plateau landscape. Numerous attenuation and ecology ponds would also form uncharacteristic elements within the landscape and, along with the required access tracks, would cause further disruption to the landscape pattern. There would be limited effects on tranquillity and the night-time character along the existing A12 corridor during operation because of the presence of the existing highway infrastructure and traffic flow. However, the offline bypass between J24 and J25 would encroach on the landscape surrounding the existing A12, increasing the extent of highway infrastructure and affecting tranquillity within part of B2 Easthorpe Farmland Plateau. Lighting from traffic on the offline bypass between J24 and J25 and elevated realigned access roads and overbridges would further erode the rural character east of the existing A12. Although the existing A12 at J25 is already lit and the urban area of Marks Tey omits light pollution, new lighting west of Marks Tey Hall would increase the extent of light pollution locally. Overall, in year 1 the proposed scheme would result in large	Major adverse	Large adverse
		Year 15 of operation – winter and summer	Mitigation planting, including individual trees along the realigned roads, woodland planting of trees and shrubs, tall screen planting and intermittent trees and shrubs along the eastern part of the offline bypass between J24 and 25, and woodland planting of trees and shrubs and intermittent trees and shrubs around the attenuation ponds, would have established to help integrate the proposed scheme into the surrounding landscape. Effects on tranquillity and on the night-time character would be as described above for year 1. However, the increased extent of highway infrastructure, the subsequent change to land use and field pattern, effects on tranquillity and night-time character, the elevated nature of some elements within the relatively flat plateau landscape would result in noticeable residual change to the existing landscape character. Overall, in year 15 there would be noticeable residual change to the existing landscape character of B2 Easthorpe Farmland Plateau with the presence of uncharacteristic, noticeable elements described above.	Moderate adverse	Moderate adverse



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
Landscape sub area B2A (directly affected)	Low	Construction	Construction activity within landscape sub area B2A, including works associated with the tie in of Wishingwell Overbridge to the existing A12, improvements to J25, demolition of Marks Tey footbridge and construction of Marks Tey Replacement Bridge and new signage and technology south and east of J25, would be set within the context of the infrastructure corridor containing the existing A12 and the GEML railway line and the surrounding, largely urban, environment. Removal of established highway planting would be required for improvements to J25, and realignment of the Roman River. Excavation of attenuation ponds, soil storage area and laydown areas would encroach into the surrounding landscape and would present uncharacteristic, noticeable elements adjacent to and within the context of the existing A12 corridor. There would be limited effects during construction on tranquillity and the night-time character along the existing A12 corridor, because of the presence of the existing highway infrastructure (including J25) and traffic flow and urban areas including Marks Tey and Copford. Overall, construction activities would result in noticeable alteration to the existing landscape character of landscape sub area B2A with the introduction of temporary, uncharacteristic, noticeable elements described above.	Moderate adverse	Sight adverse
		Year 1 of operation – winter and summer	Although the existing A12 is partly set within cutting east of Marks Tey, the proposed improvements at J25 would involve loss of vegetation, which would exacerbate the prominence of the existing A12, J25 and traffic flow within the landscape. The attenuation ponds, access tracks and additional signage and lighting south and east of J25 would also slightly intensify the presence of highway related infrastructure. However, the proposed improvements would be set within the context of the existing A12 and J25, the wider transport corridor containing the GEML railway line and the surrounding, largely urban, environment. There would be limited effects during operation on tranquillity and the night-time character, because of the presence of the existing highway infrastructure (including J25 which is lit) and traffic flow along the existing A12 corridor, and urban areas including Marks Tey and Copford. Although additional lighting south and east of J25 would slightly increase light-spill, effects would be limited because lighting would be set within the context of existing lighting at J25 and lighting from the urban areas of Marks Tey and Copford. Overall, in year 1 the proposed scheme would result in slight change to the existing landscape character of landscape sub area B2A with the presence of uncharacteristic elements described above, therefore the significance of effect would be slight adverse rather than neutral.	Minor adverse	Sight adverse
			Year 15 of operation – winter and summer	Mitigation planting, including woodland planting of trees and shrubs, would have established to integrate the existing A12 corridor and J25 back into the landscape. New woodland planting of trees and shrubs and hedges with intermittent trees would have established to integrate the attenuation ponds and access tracks into the surrounding landscape structure. Effects on tranquillity and on the night-time character would be as described above for year 1. Overall, in year 15 the proposed scheme would result in very minor residual change to the existing landscape character of landscape sub area B2A, therefore the significance of effect would be slight adverse rather than neutral.	Negligible adverse
B3 Southern Colchester Farmland Plateau (indirectly affected)		Construction	B3 Southern Colchester Farmland Plateau is located outside the Order Limits and would not be directly affected by the proposed scheme. The settlement of Copford would physically separate B3 Southern Colchester Farmland Plateau and construction activity and restrict intervisibility. During construction, there would be no noticeable alteration to the landscape character of B3 Southern Colchester Farmland Plateau.	No change	Neutral
	Medium	Year 1 of operation – winter and summer	B3 Southern Colchester Farmland Plateau would not be directly affected, and there would be limited intervisibility between B3 Southern Colchester Farmland Plateau and the proposed scheme. In year 1, the proposed scheme would result in no noticeable change to the landscape character of B3 Southern Colchester Farmland Plateau.	No change	Neutral
		Year 15 of operation – winter and summer	As above for year 1.	No change	Neutral



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect	
	Medium	Construction	B4 Great Tey Farmland Plateau is located outside the Order Limits and would not be directly affected by the proposed scheme. The GEML would physically separate B4 Great Tey Farmland Plateau and construction activity, and the strong vegetation belt along the GEML combined with other intervening vegetation would restrict intervisibility.	No change	Neutral	
B4 Great Tey Farmland		Year 1 of	During construction, there would be no noticeable alteration to the landscape character of B4 Great Tey Farmland Plateau. B4 Great Tey Farmland Plateau would not be directly affected, and there would be limited intervisibility between B4 Great Tey			
Plateau (indirectly affected)		Medium	operation – winter and summer	Farmland Plateau and the proposed scheme. In year 1, the proposed scheme would result in no noticeable change to the landscape character of B4 Great Tey Farmland Plateau.	No change	Neutral
		Year 15 of operation – winter and summer	As above for year 1.	No change	Neutral	
F1 Messing Wooded Farmland (directly affected)	Medium	Construction	Construction activity, including major earthworks for the construction of J24 and online widening of the existing A12 corridor would require removal of established highway planting and field boundary vegetation, which would make the existing online highway infrastructure and traffic flow more prominent within the landscape. Removal of trees and shrubs along Domsey Brook, east of the existing A12, to accommodate online widening and the western part of the offline bypass between J24 and J25 including extension of Domsey Brook Bridge, would affect a localised part of the character of the watercourse which is generally well vegetated. Construction activity would encroach within the arable landscape beyond the existing A12 corridor for the construction of J24 both sides of the existing A12 and for the widening of Inworth Road (B1023) south-east of J24. Laydown areas, large soil storage areas, excavation of attenuation ponds and floodplain compensation areas along Inworth Road, excavation of a localised part of borrow pit J and presence of aggregate processing facilities west of Inworth Road, and movement of vehicles along the haul roads both sides of the existing A12 would introduce new uncharacteristic, conspicuous elements within the arable landscape. Construction works for the widening of Inworth Road including excavation of attenuation ponds and floodplain attenuation areas would result in partial removal of roadside vegetation including hedgerows and trees and field boundary vegetation, which contribute to the rural character of the road and filter views of traffic. Removal of mature trees at the frontage of All Saints Church (grade I listed building) would affect its setting. Ancient woodland at Perry's Wood, west of Inworth Road, would be unaffected by proposed alterations to signage and road marking which would take place within the existing highway corridor. There would be limited effects on tranquillity and the night-time character along the existing A12 corridor during construction because of the presenc	Major adverse	Large adverse	



Local LCA	Sensitivity of local LCA	Assessment timeframe	Description of effect	Magnitude of effect	Significance of effect
		Year 1 of operation – winter and summer	Loss of vegetation would exacerbate the prominence of the existing A12 corridor and Inworth Road and associated traffic flow within the landscape. In addition to online widening along the existing A12, J24 would increase the extent of highway infrastructure, encroaching on the landscape surrounding the existing A12 corridor and affecting land use and field pattern. However, J24 would be in cutting which would reduce the prominence of the new junction and associated traffic within the landscape. Numerous attenuation ponds would form uncharacteristic features within the landscape and, along with the required access tracks, would cause further disruption to the landscape pattern. There would be limited effects on tranquillity and the night-time character along the existing A12 corridor during operation because of the presence of the existing highway infrastructure and traffic flow. However, J24 would encroach on the surrounding landscape, and would affect the tranquillity within a localised part of F1 Messing Wooded Farmland. New lighting at J24, at the new roundabout and language a section of Inwesth Road (P1023) would increase light pollution south each of Kelveden.	Major adverse	Large adverse
			along a section of Inworth Road (B1023) would increase light pollution south-east of Kelvedon. Overall, in year 1 the proposed scheme would result in large scale change to the existing landscape character of F1 Messing Wooded Farmland with the presence of numerous, uncharacteristic, conspicuous elements described above. The significance of effect would be large adverse rather than moderate adverse because the change would affect the landscape surrounding the existing A12 for the construction of J24.		
		Year 15 of operation – winter and summer	Mitigation planting including woodland planting of trees and shrubs, intermittent trees and shrubs and individual trees would have established to integrate the widened A12 corridor back into the landscape and to integrate J24, the attenuation ponds and access tracks into the surrounding landscape structure. Mitigation planting along Inworth Road including hedges with intermittent trees and individual trees would also have established to reinstate the rural character of the road, integrate attenuation ponds and to reinstate the landscape setting of All Saints Church (grade I listed building). Effects on tranquillity and on the night-time character would be as described above for year 1. Although J24 would be in cutting, which would reduce the prominence of the infrastructure within the landscape, the increased extent of highway infrastructure at J24, the subsequent change to land use, field pattern and the introduction of lighting at J24 would result in noticeable residual change to the existing landscape character.	Moderate adverse	Moderate adverse
			Overall, in year 15 there would be noticeable residual change to the landscape character of F1 Messing Wooded Farmland with the presence of uncharacteristic, noticeable elements described above.		
F2 Tiptree Wooded Farmland (indirectly affected)		Construction	F2 Tiptree Wooded Farmland is located outside the Order Limits and would not be directly affected by the proposed scheme. Settlement within Tiptree and at Windmill Hill and intervening vegetation would restrict intervisibility between F2 Tiptree Wooded Farmland and construction activity. During construction, there would be no noticeable alteration to the landscape character of F2 Tiptree Wooded Farmland.	No change	Neutral
	Medium	Year 1 of operation – winter and summer	F2 Tiptree Wooded Farmland would not be directly affected, and there would be limited intervisibility between F2 Tiptree Wooded Farmland and the proposed scheme. In year 1, the proposed scheme would result in no noticeable change to the landscape character of F2 Tiptree Wooded Farmland.	No change	Neutral
		Year 15 of operation – winter and summer	As above for year 1.	No change	Neutral



References

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