



- ### LANDSCAPE/ ECOLOGY STRATEGY
- Native woodland plantations added to both sides of the highway corridor to reinstate for loss of trees in this locality. Further woodland added to provide connectivity to nearby tree lines and scattered copse.
 - Neutral soil wildflower meadow and grassland specified using locally common species.
 - Hall beck diversion and attenuation basins allowed to colonise naturally.
 - Field boundaries retained as dry stone walls and timber post and stock proof netting.
 - Ancient and veteran trees to be protected during construction phase. In accordance with BS5837:2012. Refer to Tree Survey and Arboricultural Impact Assessment Figures 1 to 14.
 - New tree planting to be added beyond the protected Root Protection Area to act as buffer to protect the trees for the future.

NOTE - CONSTRUCTION ISSUE C03

- Amendments to the design at Church Hill (minor amendments to the boundary treatments to allow for the road reconfiguration, and gates altered at church car park);
- Amendments to the design at Hall Lane (minor amendments to the boundary treatments to allow for the road reconfiguration);
- Diversion of Hall Beck (alteration to watercourse alignment and design);
- Soft landscaping around drainage areas including Attenuation Ponds (refer to Point 6);
- Siting of interceptor channels and filter drains (soft landscaping around changes in Point 3);
- Variation in slope angle on certain sections (change in type of planting in certain areas due to underlying geotechnical feature placement associated with soil stability);
- Inclusion of reinstatement works for areas used as temporary construction compounds;
- Areas of woodland and scrub planting are to be reconfigured, following recent tree clearances; and
- No. 8 additional tree guards will be provided within livestock fields near Blubberhouses Hall to protect growing trees.

Further tree removal to occur in this block of vegetation. A detailed topographic survey will determine the location of filter drain in this area.

STRUCTURE No. 6
EASTERN UNDERPASS

At the Eastern Underpass, woodland planting provided to replace lost habitat and to encourage bird flight at height

Tree felling works to be minimised during the enabling works. All tree works to be supervised by ECOW.

For all areas alongside watercourses, Hall Beck and the Attenuation Ponds, these areas to be left to self colonise naturally.

STRUCTURE No.7
NEW CULVERT APPROX. CH5440
Culvert includes fish baffles, mammal ledges

STRUCTURE No.8
NEW CULVERT - APPROX. CH5525 TO 5640
Culvert includes fish baffles, mammal ledges and otter-proof fencing

Existing A59 to be reinstated to private farm track from Blubberhouses to Paradise Farm access

- *Drystone Walls, Typical Height is 1.4m in height. Height will vary according to local precedent from 1.1 to 1.4m tall, with or without stockproof fence/hedge depending on landowner requirement. Refer to Drystone Wall Management Plan prepared by the Contractor.
- All 1:3, 1:2 embankments and cuttings to be hydroseeded in August/ September.
- Bridleway to have 1m wide verge on either side of wildflower grass seed mix, using G2, G3 or G5 according to location.
- Existing trees in the Blubberhouses and Eastern underpass area have been surveyed and plotted within a 5m parameter due to method of surveying used. (Handheld GPS). Generally, the existing trees are drawn with a 13m spread, except the actual canopy to vary in size.
- Refer to Tree Survey and Arboricultural Impact Assessment Figures 1 to 14. Tree Protective fencing is shown on the Tree Survey and Arboricultural Impact Assessment Figures 1 to 14. The fencing to protect all existing trees to be retained during construction and for the future against grazing by livestock.
- For new tree planting positions, these to be agreed on site with the Project Manager to avoid conflicts with geo-engineering structures.
- For all areas where woodland/scrub lies adjacent to an existing or proposed wall or fence, planting of shrubs and trees to be offset from the boundary by 2m on either side of the boundary.

- For tree planting alongside Hall Beck, planting to commence 2.5m from the top of the bank on either side of the Beck.
- For information on Boundary treatments, please refer to NYKGGD-WSP-HFE-SG-DR-CH-03001 to 03015.
- For information on the location of interceptor drains and drainage, refer to NYKGGD-WSP-HDG-SG-DR-CD-0500_001 to NYKGGD-WSP-HDG-SG-DR-CD-0500_0028.
- For information on underground culverts, refer to Culvert drawings, ST000 series, STR001 to STR012.
- For information on Hall Beck Diversion, refer to Drg Ref No NYKGG-WSP-EGN-SG-DR-LE-00001 to NYKGG-WSP-EGN-SG-DR-LE-00037.
- For information on the attenuation pond refer to Drawing Series 500, Ref No NYKGGD-WSP-HDG-SG-DR-CD-0500_014, 015 and 016.
- For information on Western Underpass refer to Drg Ref Nos NYKGGD-WSP-SP-SBR-ST004-DR-CB-0003 to 0033 and for Eastern Underpass refer to Drg Ref Nos NYKGGD-WSP-SP-SBR-ST006-DR-CB-0003 to 0042.

Note.
All works within the NYCC Highway boundary to be the responsibility of the NYCC Highways Department from the end of the 5-Year Establishment Period.
Areas of land outwith the NYCC Highways boundary will revert to the Landowner for ongoing maintenance.
For details of planting proposals please refer to Planting Plans, Drg Ref No NYKGGD-WSP-ELS-SG-DR-LE-00011 to 00026.

DO NOT SCALE

Proposed Vegetation Types

- New Woodland
- Scrub
- G1 Highway Verge and Visibility Splay (Pollinator Mix-Mown to maintain height of 0.26)
- G2 Wildflower and Grass Meadow for Acid Soils
- G3 Upland Heathland/ Acid Grassland with added Heather (Allow for 5% of Heather seed to be sourced via local landowner, the remaining to be sourced commercially due to quantity required)
- G4 Wet Grassland (Alongside Hall Beck watercourse and within Attenuation Pond. Allow areas to recolonise naturally. No seed mix necessary in these areas)
- G5 Wildflower and Grass Meadow Mix for Neutral Soils (Pollinator Mix)
- G6 Woodland Wildflower and Grass Mix
- Rock Outcrops

Existing Features

- Retained Trees
- Retained Ancient Veteran Trees
- Retained Woodland
- Retained Hedge
- Retained Dry Stone Wall
- Retained Birdsmouth Fence
- Retained Timber Post & Wire and Gates

Proposed Features

- Stone Wall
- Timber Post & 4 Rail Fence
- Birdsmouth Fence
- Timber Post & Wire Fence
- Temporary Fencing
- Other Fencing
- Gate
- Maintenance Access Stile
- Retaining Wall
- Underground Culvert
- Watercourse
- Open Water
- Trees
- Riverine Stone and Gravel
- Timber Post and Rail Tree Guard

Public Access

- Public Rights of Way - Footpath
- Public Rights of Way - Bridleway
- Unsurfaced Unclassified Roads /Permissive Route
- Six Dales Way (National Trail)
- Restricted Byway

Ecological Elements

(Indicative Location Only)

- Wildlife Refuge
- Wildlife Hibernation Refuge
- Suitable Trees/Woodland for bat roosts, bat boxes and bird nest boxes
- Woodland Planting for Bats and Birds to encourage flight at height over carriageway

This design has been issued in advance of the full ground investigation results. It is possible that, following review of the ground investigation, changes may be required to the earthworks design with associated impacts on the design or layout of other elements of the project. This drawing is therefore subject to possible change following review of the ground investigation when this has been made available to WSP.

The design information shown on this drawing and any associated setting out information is based on British National Grid.

REV	DATE	BY	DESCRIPTION	CHK	APP
C03	21/08/23	MM	FOR CONSTRUCTION	SF	AW
C02	03/04/23	JY	CONTRACTORS STORAGE AREAS REVISED	SF	AW
C01	01/02/23	MM	CONSTRUCTION ISSUE BASED ON HIGHWAY DESIGN VERSION JUNE 2021	SF	AW

DRAWING STATUS: **S3 - FOR REVIEW**

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CLIENT: **North Yorkshire County Council**

DESIGNER: **wsp**

SITE/PROJECT: **A59 KEX GILL DIVERSION**

TITLE: **Landscape Ecology Mitigation Monitoring and Management Plan (Sheet 6 of 10)**

SCALE @ A1:	CHECKED:	APPROVED:
1:1000	SF	AW

PROJECT NO:	DESIGNED:	DRAWN:	DATE:
70049554	SF	MM	AUGUST 2023

DRAWING NO:	REV:
NYKGGD-WSP-ELS-SG-DR-LE-00032	C03

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