



- ### LANDSCAPE/ ECOLOGY STRATEGY
- Native tree and shrub plantation added to supplement existing vegetation.
  - Highway cutting and embankments designed to reflect the local landscape character with rock outcrops, occasional scrub, acid grassland/heath with stone boundary walls as field boundaries.
  - Public bridleway retained and diverted via the Western Underpass.
  - A 100m belt of new woodland planting on each side of the new highway added at the known bird flight path to encourage birds to fly at high level over a section of raised carriageway.
  - Addition of rock outcrops, scattered scrub and acid grassland reinforce the local landscape character of open moorland, rock, grassland and boundary features.
  - All land used as temporary haul road sited inside and outside the Red Line Boundary to be reinstated following completion in accordance with reinstatement works agreed with Private Landowner.

- ### 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.

### DO NOT SCALE

#### Proposed Vegetation Types

- New Woodland
- Scrub
- G1 Highway Verge and Visibility Splay (Pollinator Mix 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
- Birdmouth 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 rookets, bat boxes and bird nest boxes
- Woodland Planting for Bats and Birds to encourage flight at height over carriageway

- \*Drystone Walls, Typical Height is 1.4m 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 of 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: Allow 3m strip for alignment of Public Right of Way through the new woodland plantation

At the Western underpass 100m width of woodland planting to be provided on both sides of carriageway to encourage flight at height to avoid being struck by vehicles.

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 the design.

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 3 of 10)**

SCALE @ A1:	1:1000	CHECKED:	SF	APPROVED:	AW
PROJECT NO:	70049554	DESIGNED:	SF	DRAWN:	MM
				DATE:	AUGUST 2023

DRAWING NO: **NYKGGD-WSP-ELS-SG-DR-LE-00029** REV: **C03**

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