

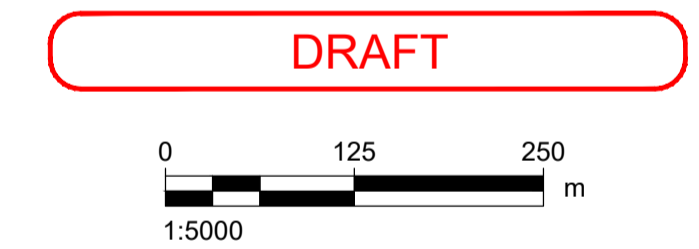
**PROJECT**  
 UPPER DARENT  
 NATURAL FLOOD  
 MANAGEMENT PHASE 2

**CLIENT**  
 Kent County Council  
 Sessions House, County Road  
 Maidstone, Kent  
 ME14 1XQ  
 T:+44(0)-300-041-4141  
 www.kent.gov.uk

**CONSULTANT**  
 AECOM  
 2 City Walk, Leeds  
 LS11 9AR  
 T:+44(0)-113-301-8400  
 www.aecom.com

**NOTES**  
 1. SITE ACCESS ROUTES SHOWN TO REPRESENT THE UNDERSTANDING AT THE TIME OF DESIGN. ROUTES ARE TO BE CONFIRMED WITH RELEVANT LANDOWNERS PRIOR TO CONSTRUCTION.

**KEY**  
 - - - - - SITE ACCESS ROUTE



**ISSUE/REVISION**

NO	DATE	DESCRIPTION
P01	12/02/2021	ISSUED FOR COMMENT
I/R	DATE	DESCRIPTION

**ISSUE PURPOSE / SUITABILITY**  
 Draft issue for comment

**PROJECT NUMBER**  
 60647294

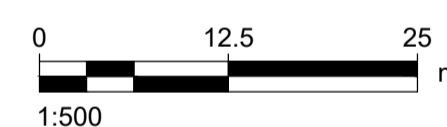
**SHEET TITLE**  
 SITE LOCATIONS PLAN AND  
 ACCESS ROUTES

**SHEET NUMBER**  
 60647294-ACM-XX-ZZ-DR-CE-010001

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability, whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. All measurements must be obtained from the stated dimensions.

- NOTES**
- ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM, UNLESS STATED OTHERWISE.
  - GROUND LEVELS BASED ON LIDAR DATA, TO BE CONFIRMED ON SITE.
  - LOW UXO HAZARD IDENTIFIED IN DESK STUDY AND RISK ASSESSMENT, POTENTIAL FOR DISCOVERY TO BE CONSIDERED DURING CONSTRUCTION.
  - 5 m WIDE TREE ROOT PROTECTION AREAS TO BE DEMARKED WITH FENCING PINS AND BARRIER TAPE, OR SIMILAR, TO PREVENT EXCAVATION AND PLANT MOVEMENT WITHIN AREA.
  - TOTAL SWALE LENGTH = 230 m. FOR SWALE SETTING OUT POINTS REFER TO DRAWING: 60647294-ACM-XX-01-DR-CE-010002. FOR SWALE TYPICAL SECTIONS INCLUDING CHECK DAMS REFER TO DRAWING: 60647294-ACM-XX-ZZ-DR-CE-050001.
  - FOR RELEVANT LANDSCAPE DRAWING REFER TO: 60647294-ACM-XX-01-DR-LA-010001.

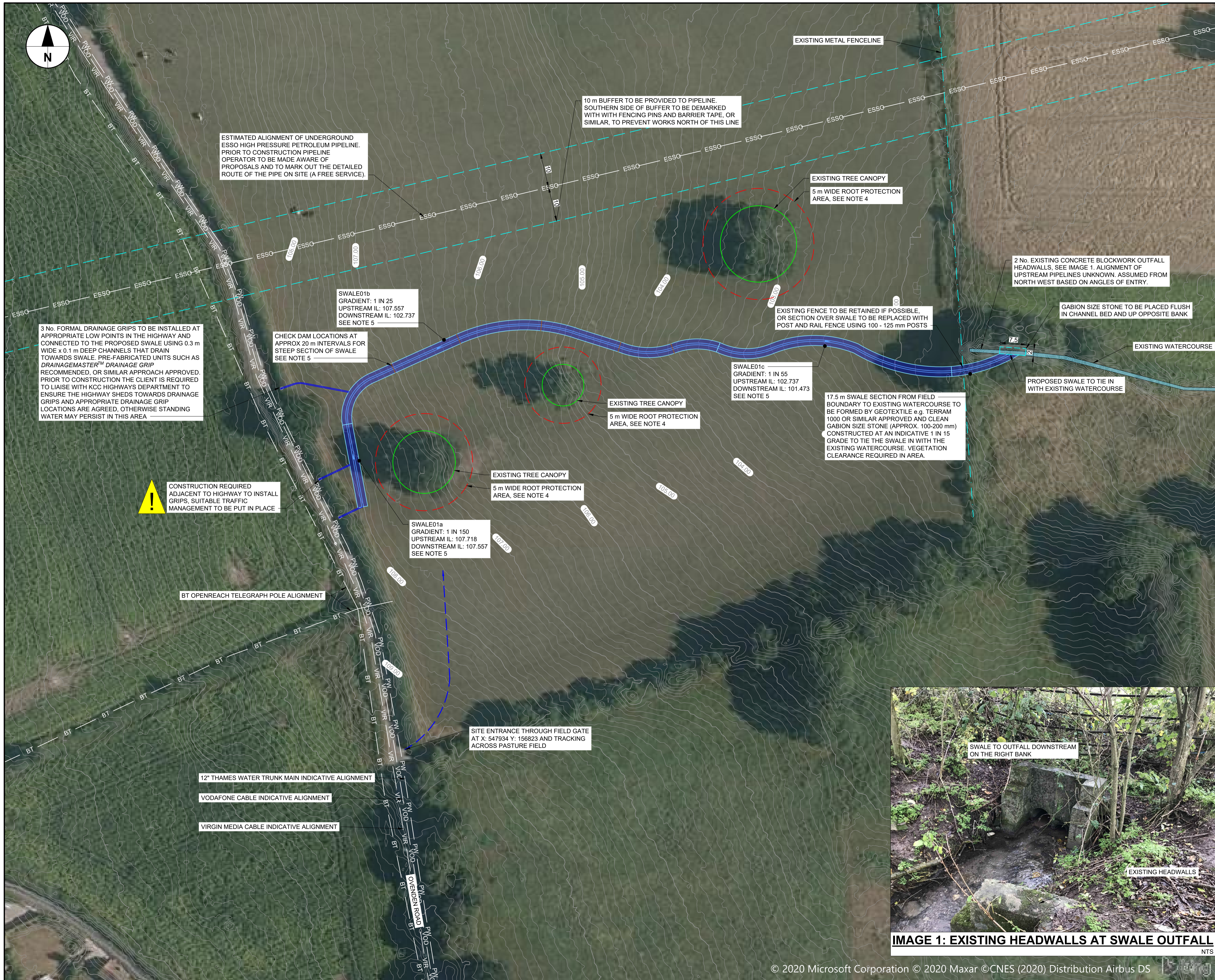
DRAFT



**ISSUE/REVISION**

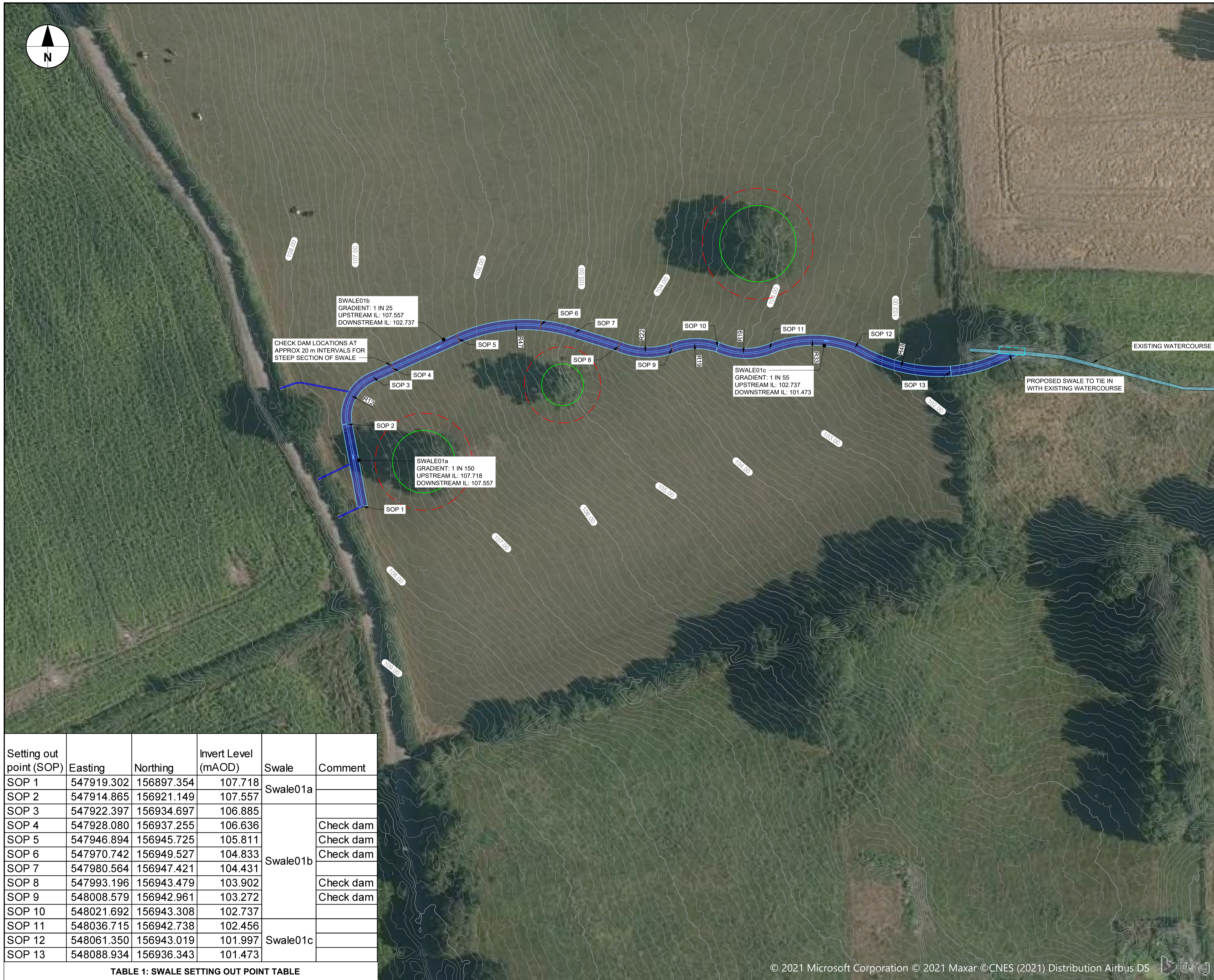
NO.	DATE	DESCRIPTION
P01	12/02/2021	ISSUED FOR COMMENT
I/R	DATE	DESCRIPTION

**ISSUE PURPOSE / SUITABILITY**  
 Draft issue for comment



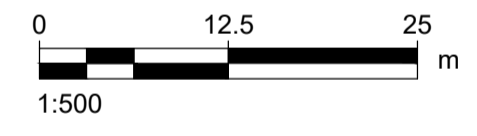
**IMAGE 1: EXISTING HEADWALLS AT SWALE OUTFALL**

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability, whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.



- NOTES**
1. ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM, UNLESS STATED OTHERWISE.
  2. GROUND LEVELS BASED ON LIDAR DATA, TO BE CONFIRMED ON SITE.
  3. LOW UXO HAZARD IDENTIFIED IN DESK STUDY AND RISK ASSESSMENT, POTENTIAL FOR DISCOVERY TO BE CONSIDERED DURING CONSTRUCTION.
  4. FOR SWALE DETAILS REFER TO DRAWING: 60647294-ACM-XX-01-DR-CE-010001. FOR SWALE TYPICAL SECTIONS INCLUDING CHECK DAMS REFER TO DRAWING: 60647294-ACM-XX-ZZ-DR-CE-050001.

DRAFT



ISSUE/REVISION		
P01	12/02/2021	ISSUED FOR COMMENT
I/R	DATE	DESCRIPTION

**ISSUE PURPOSE / SUITABILITY**  
 Draft issue for comment

**PROJECT NUMBER**  
 60647294

**SHEET TITLE**  
 OVENDEN FARM SWALE AND DRAINAGE GRIPS SETTING OUT POINTS





**SHEET NUMBER**  
 60647294-ACM-XX-01-DR-CE-010002

Setting out point (SOP)	Easting	Northing	Invert Level (mAOD)	Swale	Comment
SOP 1	547919.302	156897.354	107.718	Swale01a	
SOP 2	547914.865	156921.149	107.557		
SOP 3	547922.397	156934.697	106.885	Swale01b	
SOP 4	547928.080	156937.255	106.636		Check dam
SOP 5	547946.894	156945.725	105.811		Check dam
SOP 6	547970.742	156949.527	104.833		Check dam
SOP 7	547980.564	156947.421	104.431		
SOP 8	547993.196	156943.479	103.902		Check dam
SOP 9	548008.579	156942.961	103.272		Check dam
SOP 10	548021.692	156943.308	102.737		
SOP 11	548036.715	156942.738	102.456	Swale01c	
SOP 12	548061.350	156943.019	101.997		
SOP 13	548088.934	156936.343	101.473		

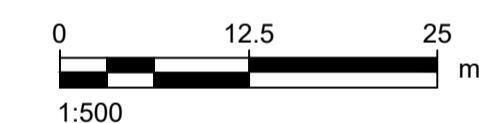
**TABLE 1: SWALE SETTING OUT POINT TABLE**

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability, whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.



- KEY**
-  NATIVE PLANTING
  -  MARGINAL SEEDING: EMORSGATE EG8 (MEADOW GRASS MIXTURE FOR WET SOILS) SOWN AT A RATE OF 5g/m<sup>2</sup>. TOTAL AREA TO BE SEEDED: 515m<sup>2</sup>.
  -  DRAINAGE GRIPS
  -  SWALE

**DRAFT**



ISSUE/REVISION		
I/R	DATE	DESCRIPTION
P01	12/02/2021	ISSUED FOR COMMENT

**ISSUE PURPOSE / SUITABILITY**  
 Draft issue for comment

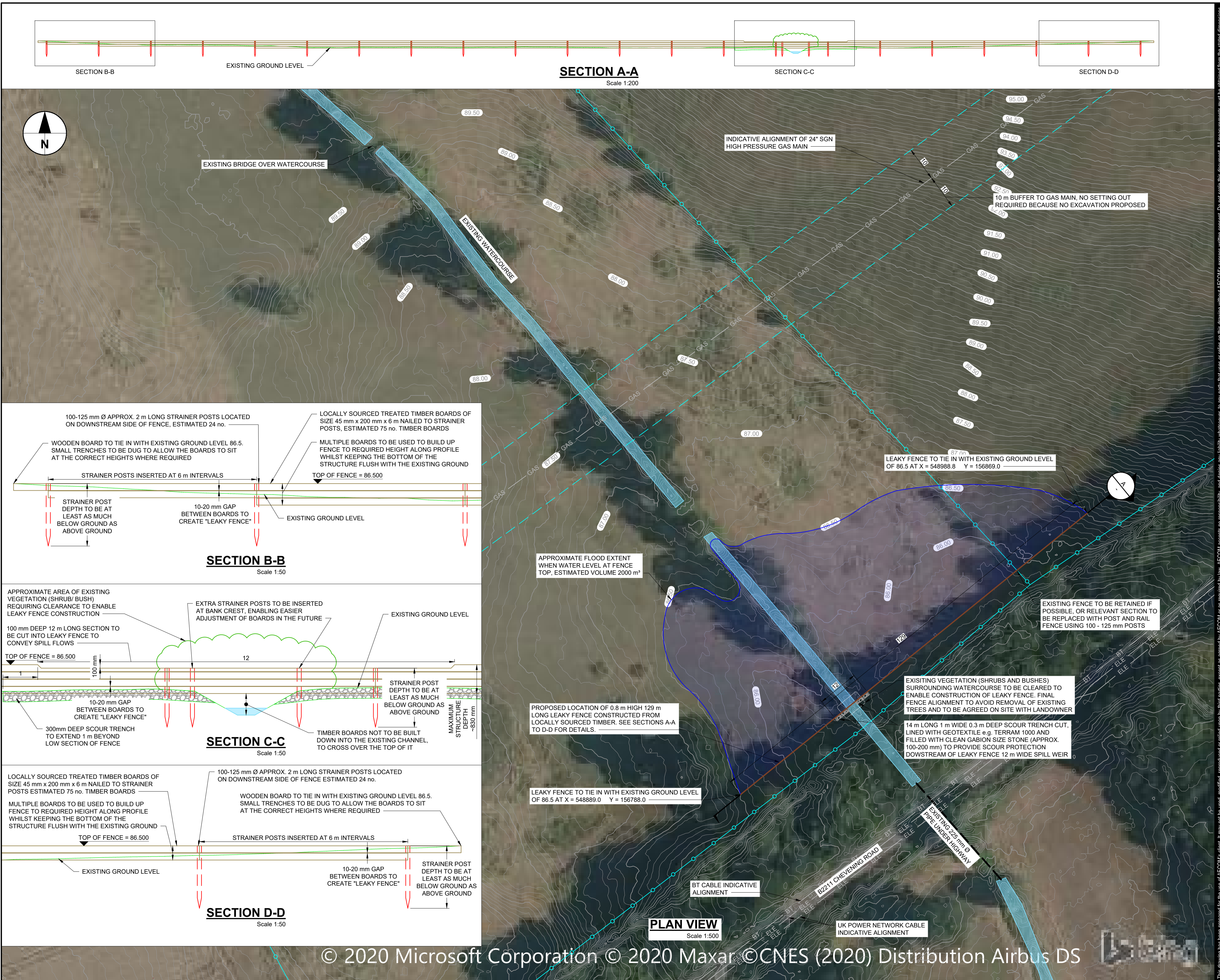
Native planting							
Botanical name	Common name	Age	Height	Root	% Mix	No. per 10 linear m (4 rows)	Total number
<i>Acer campestre</i>	Field maple	1+1	60-80cm	Bare Root	15%	18	770
<i>Crataegus monogyna</i>	Hawthorn	1+1	60-80cm	Bare Root	20%	24	1,027
<i>Cornus sanguinea</i>	Dogwood	1+2	60-80cm	Bare Root	15%	18	770
<i>Corylus avellana</i>	Hazel	1+2	60-80cm	Bare Root	10%	12	514
<i>Frangula alnus</i>	Alder buckthorn	1+1	60-80cm	Bare Root	10%	12	514
<i>Prunus spinosa</i>	Blackthorn	1+1	60-80cm	Bare Root	20%	24	1,027
<i>Rosa canina</i>	Dog rose	1+1	60-80cm	Bare Root	5%	6	257
<i>Viburnum opulus</i>	Guelder rose	1+2	60-80cm	Bare Root	5%	6	257
					100%	120	5,136

**Notes:** To be planted at 3 plants per linear metre, in 4 staggered rows spaced at approximately 45cm apart. To be planted with a sinuous and naturalistic edge (not as a line).

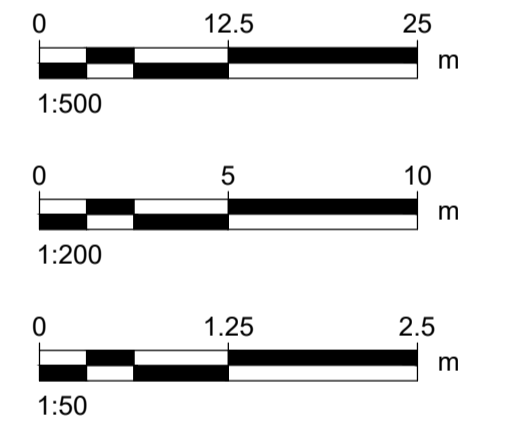
This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

ISO A1 594mm x 841mm  
 Drawn: AP  
 Approved: AG  
 Checked: AFH  
 Designer: AP  
 Project Management Initials: P01  
 Last saved by: PULLANA(2021-02-03)  
 Filename: 60647294-ACM-XX-01-DR-CE-010001

- NOTES**
- ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM, UNLESS STATED OTHERWISE.
  - GROUND LEVELS BASED ON LIDAR DATA, TO BE CONFIRMED ON SITE.
  - LOW UXO HAZARD IDENTIFIED IN DESK STUDY AND RISK ASSESSMENT, POTENTIAL FOR DISCOVERY TO BE CONSIDERED DURING CONSTRUCTION.



**DRAFT**



ISSUE/REVISION		
NO.	DATE	DESCRIPTION
P01	12/02/2021	ISSUED FOR COMMENT
I/R	DATE	DESCRIPTION

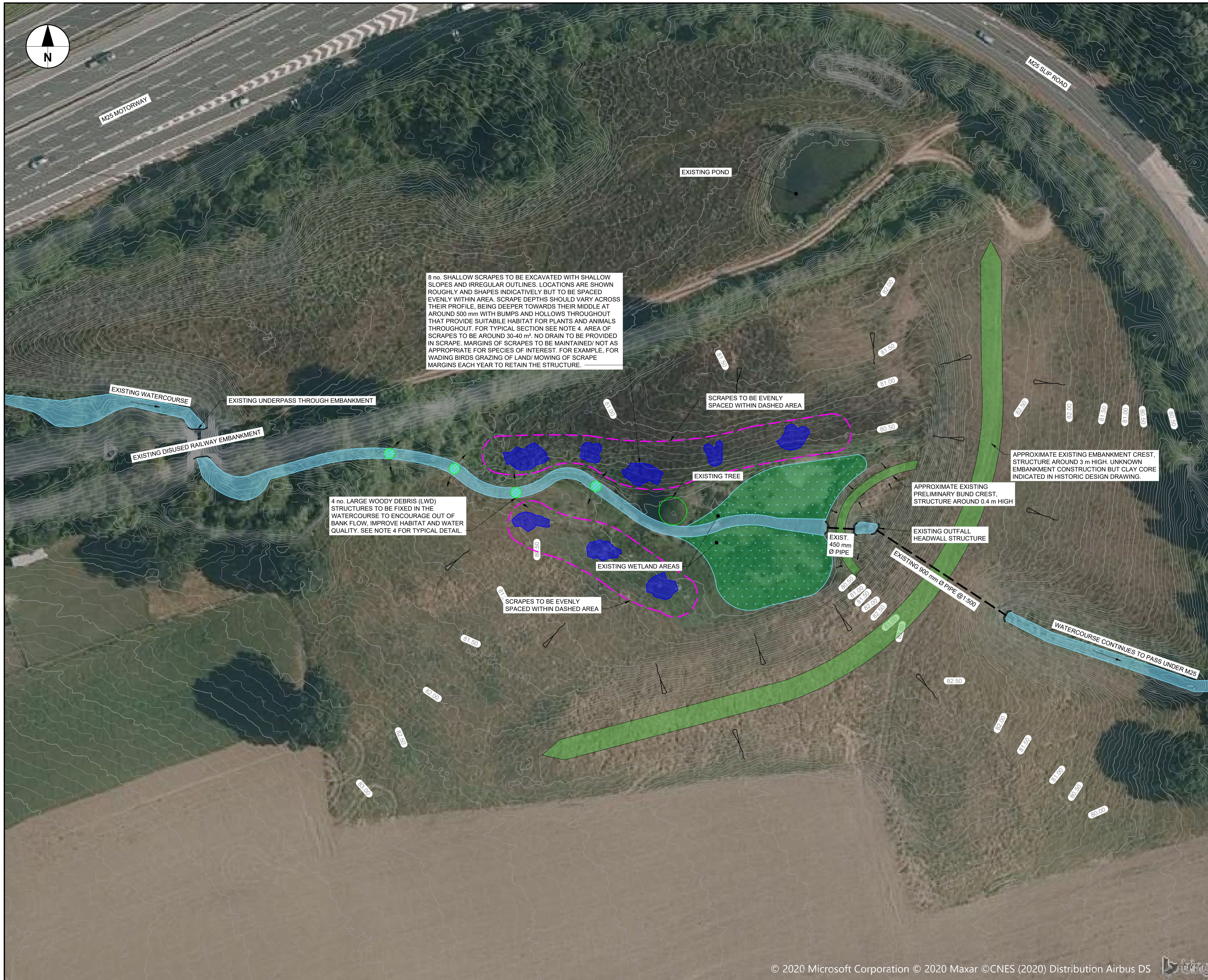
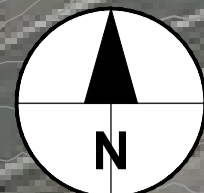
**ISSUE PURPOSE / SUITABILITY**  
 Draft issue for comment

**PROJECT NUMBER**  
60647294

**SHEET TITLE**  
OVENDEN FARM STORAGE AREA PLAN

**SHEET NUMBER**  
60647294-ACM-XX-02-DR-CE-010001

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability, whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.



8 no. SHALLOW SCRAPES TO BE EXCAVATED WITH SHALLOW SLOPES AND IRREGULAR OUTLINES. LOCATIONS ARE SHOWN ROUGHLY AND SHAPES INDICATIVELY BUT TO BE SPACED EVENLY WITHIN AREA. SCRAPE DEPTHS SHOULD VARY ACROSS THEIR PROFILE, BEING DEEPER TOWARDS THEIR MIDDLE AT AROUND 500 mm WITH BUMPS AND HOLLOWES THROUGHOUT THAT PROVIDE SUITABLE HABITAT FOR PLANTS AND ANIMALS THROUGHOUT. FOR TYPICAL SECTION SEE NOTE 4. AREA OF SCRAPES TO BE AROUND 30-40 m<sup>2</sup>. NO DRAIN TO BE PROVIDED IN SCRAPE. MARGINS OF SCRAPES TO BE MAINTAINED/ NOT AS APPROPRIATE FOR SPECIES OF INTEREST. FOR EXAMPLE, FOR WADING BIRDS GRAZING OF LAND/ MOWING OF SCRAPE MARGINS EACH YEAR TO RETAIN THE STRUCTURE.

4 no. LARGE WOODY DEBRIS (LWD) STRUCTURES TO BE FIXED IN THE WATERCOURSE TO ENCOURAGE OUT OF BANK FLOW, IMPROVE HABITAT AND WATER QUALITY. SEE NOTE 4 FOR TYPICAL DETAIL.

APPROXIMATE EXISTING EMBANKMENT CREST. STRUCTURE AROUND 3 m HIGH. UNKNOWN EMBANKMENT CONSTRUCTION BUT CLAY CORE INDICATED IN HISTORIC DESIGN DRAWING.

APPROXIMATE EXISTING PRELIMINARY BUND CREST. STRUCTURE AROUND 0.4 m HIGH

EXISTING 900 mm Ø PIPE @ 1:500

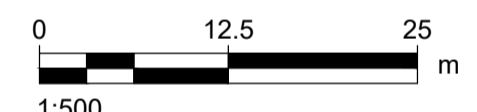
EXIST. 450 mm Ø PIPE

EXISTING OUTFALL HEADWALL STRUCTURE

- NOTES**
1. ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM, UNLESS STATED OTHERWISE.
  2. GROUND LEVELS BASED ON LIDAR DATA, TO BE CONFIRMED ON SITE.
  3. LOW UXO HAZARD IDENTIFIED IN DESK STUDY AND RISK ASSESSMENT, POTENTIAL FOR DISCOVERY TO BE CONSIDERED DURING CONSTRUCTION.
  4. FOR SHALLOW SCRAPE TYPICAL SECTION AND LARGE WOODY DEBRIS DETAILS REFER TO DRAWING: 60647294-ACM-XX-ZZ-DR-CE-050001.
  5. FOR RELEVANT LANDSCAPE DRAWING REFER TO: 60647294-ACM-XX-03-DR-LA-010001.

- PROPOSED INTERVENTIONS**
- SHALLOW SCRAPES
  - LARGE WOODY DEBRIS (LWD)

**DRAFT**



**ISSUE/REVISION**

I/R	DATE	DESCRIPTION
P01	12/02/2021	ISSUED FOR COMMENT

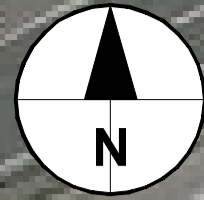
**ISSUE PURPOSE / SUITABILITY**  
 Draft issue for comment

**PROJECT NUMBER**  
 60647294

**SHEET TITLE**  
 CHEVENING ESTATE STORAGE  
 AREA AND WETLAND PLAN

**SHEET NUMBER**  
 60647294-ACM-XX-03-DR-CE-010001

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability, whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. All measurements must be obtained from the stated dimensions.



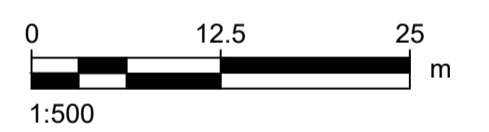
LONDON ORBITAL MOTORWAY

**KEY**

	TREE PLANTING
	NATIVE WHIP PLANTING
	SHALLOW SCRAPES
	LARGE WOODY DEBRIS (LWD)
	EXISTING WATERCOURSE

FOR SHALLOW SCRAPE TYPICAL SECTION AND LARGE WOODY DEBRIS DETAILS REFER TO DRAWING: 60647294-ACM-XX-ZZ-DR-CE-050001.

**DRAFT**



**ISSUE/REVISION**

I/R	DATE	DESCRIPTION
P01	12/02/2021	ISSUED FOR COMMENT

**ISSUE PURPOSE / SUITABILITY**  
 Draft issue for comment

**PROJECT NUMBER**  
 60647294

**SHEET TITLE**  
 CHEVENING ESTATE STORAGE  
 LANDSCAPE PLANTING

**SHEET NUMBER**  
 60647294-ACM-XX-03-DR-LA-010001



Native whip planting						
Botanical name	Common name	Age	Height	Root	% Mix	Total number
<i>Acer campestre</i>	Field maple	1+1	60-80cm	Bare Root	15%	621
<i>Crataegus monogyna</i>	Hawthorn	1+1	60-80cm	Bare Root	20%	828
<i>Cornus sanguinea</i>	Dogwood	1+2	60-80cm	Bare Root	15%	621
<i>Corylus avellana</i>	Hazel	1+2	60-80cm	Bare Root	10%	414
<i>Frangula alnus</i>	Alder buckthorn	1+1	60-80cm	Bare Root	10%	414
<i>Prunus spinosa</i>	Blackthorn	1+1	60-80cm	Bare Root	20%	828
<i>Rosa canina</i>	Dog rose	1+1	60-80cm	Bare Root	5%	207
<i>Viburnum opulus</i>	Guelder rose	1+2	60-80cm	Bare Root	5%	207
					100%	4,140

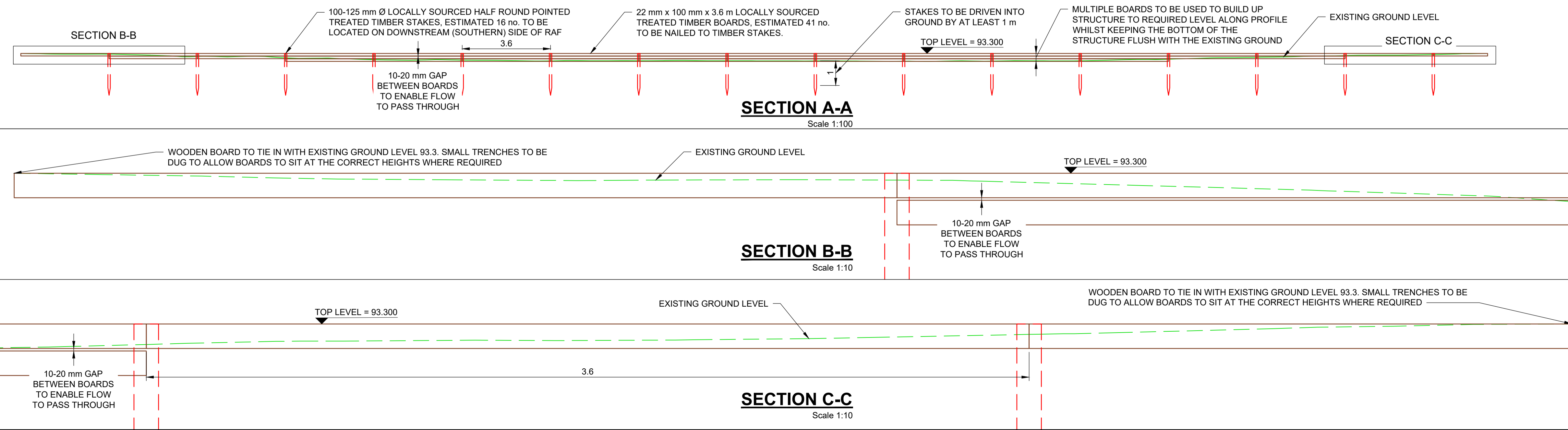
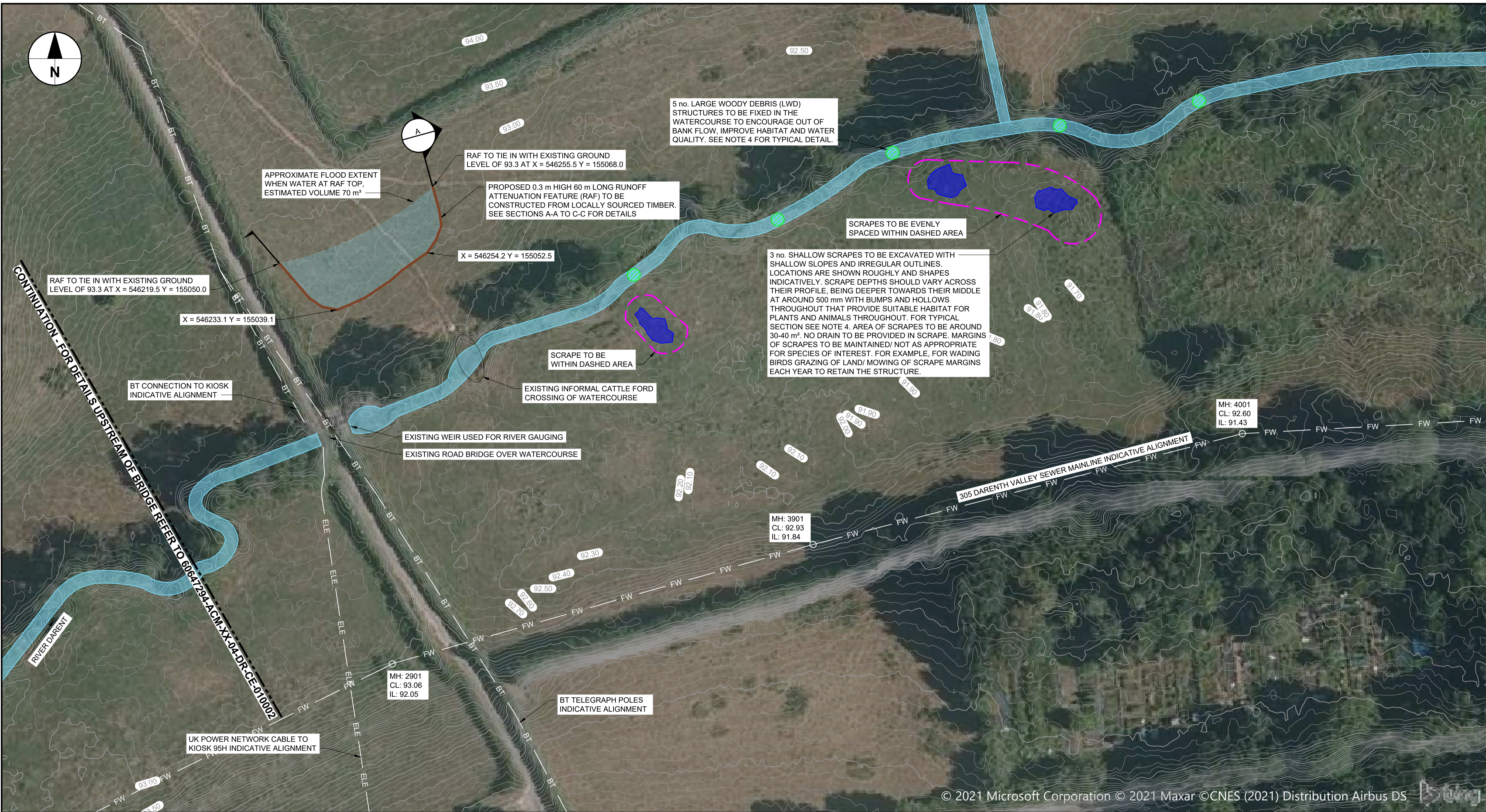
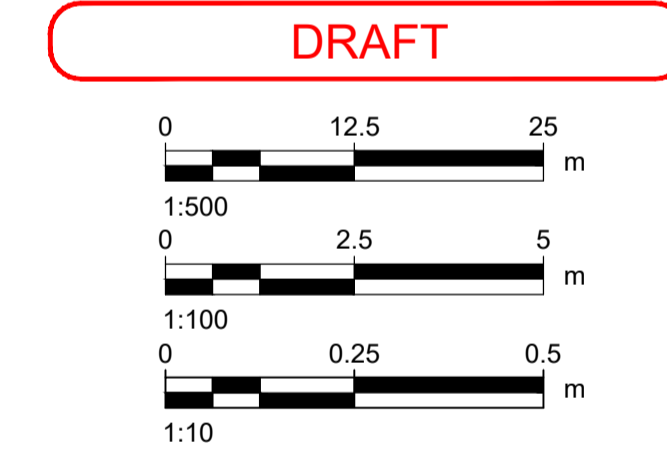
**Notes:** Whips to be planted at 2 per m<sup>2</sup>.

Tree planting							
Botanical name	Common name	Form	Age	Height	Root	% Mix	Total number
<i>Alnus glutinosa</i>	Common alder	Feather	2x	175-200cm	Bare Root	40%	33
<i>Salix alba</i>	White willow	Transplant	0/1/2	175-200cm	Bare Root	30%	25
<i>Salix fragilis</i>	Crack willow	Transplant	0/1/2	150-175cm	Bare Root	30%	25
						100%	83

**Notes:** To be planted at 1 tree per 3m<sup>2</sup> (with species in a random pattern).

- NOTES**
- ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM, UNLESS STATED OTHERWISE.
  - GROUND LEVELS BASED ON LIDAR DATA, TO BE CONFIRMED ON SITE.
  - LOW UXO HAZARD IDENTIFIED IN DESK STUDY AND RISK ASSESSMENT, POTENTIAL FOR DISCOVERY TO BE CONSIDERED DURING CONSTRUCTION.
  - FOR SHALLOW SCRAPE TYPICAL SECTION AND LARGE WOODY DEBRIS DETAILS REFER TO DRAWING: 60647294-ACM-XX-ZZ-DR-CE-050001.
  - FOR RELEVANT LANDSCAPE DRAWING REFER TO: 60647294-ACM-XX-04-DR-LA-010001.

- PROPOSED INTERVENTIONS**
- SHALLOW SCRAPES
  - LARGE WOODY DEBRIS (LWD)
  - RUNOFF ATTENUATION FEATURE (RAF)



**ISSUE/REVISION**

NO.	DATE	DESCRIPTION
P01	12/02/2021	ISSUED FOR COMMENT
I/R	DATE	DESCRIPTION

**ISSUE PURPOSE / SUITABILITY**  
 Draft issue for comment

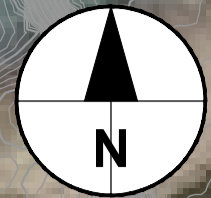
**PROJECT NUMBER**  
 60647294

**SHEET TITLE**  
 PARK FARM EAST  
 NFM PLAN

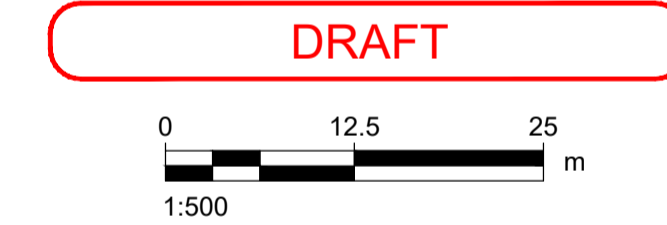
**SHEET NUMBER**  
 60647294-ACM-XX-04-DR-CE-010001

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, without the prior written consent of AECOM. AECOM accepts no responsibility, and denies any liability, whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.





- NOTES**
- ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM, UNLESS STATED OTHERWISE.
  - GROUND LEVELS BASED ON LIDAR DATA, TO BE CONFIRMED ON SITE.
  - LOW UXO HAZARD IDENTIFIED IN DESK STUDY AND RISK ASSESSMENT, POTENTIAL FOR DISCOVERY TO BE CONSIDERED DURING CONSTRUCTION.
  - DRAWING PRODUCED AS AN INDICATIVE DESIGN TO CONVEY THE IMPACTS OF A POTENTIAL STRUCTURE OF THIS SIZE AND THE MAJOR CONSTRAINTS IDENTIFIED AT THIS SITE TO DATE. SIGNIFICANT HYDRAULIC MODELLING AND DESIGN WORK REQUIRED TO DEVELOP DESIGN BEYOND CURRENT CONCEPT STAGE.



**ISSUE/REVISION**

NO	DATE	DESCRIPTION

**ISSUE PURPOSE / SUITABILITY**  
 Draft issue for comment

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability, whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.



**ISSUE/REVISION**

I/R	DATE	DESCRIPTION
P01	12/02/2021	ISSUED FOR COMMENT

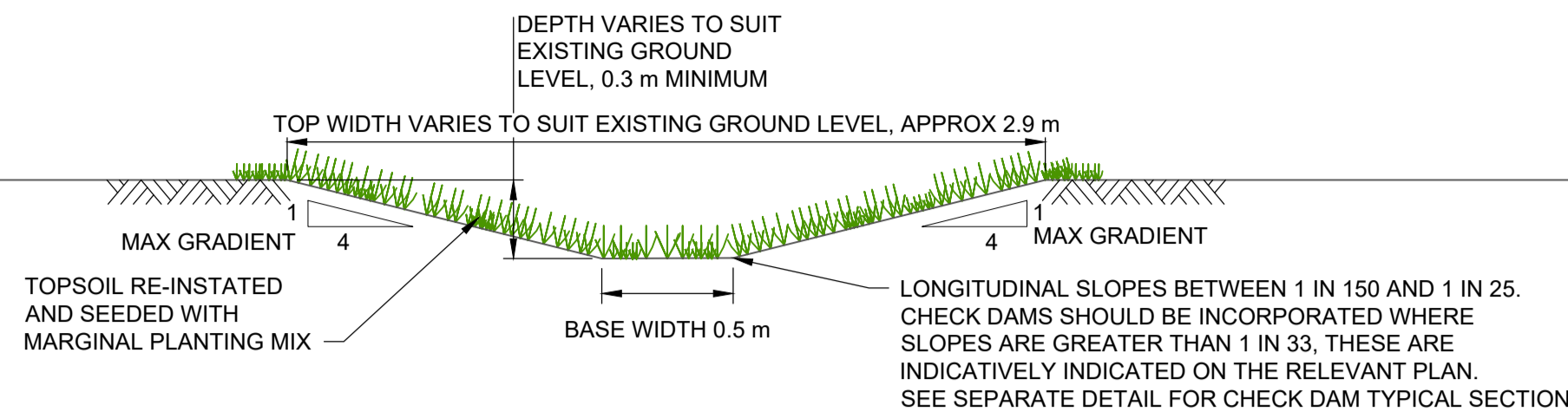
**ISSUE PURPOSE / SUITABILITY**  
 Draft issue for comment

Native planting							
Botanical name	Common name	Age	Height	Root	% Mix	No. per 10 linear m (4 rows)	Total number
<i>Acer campestre</i>	Field maple	1+1	60-80cm	Bare Root	15%	18	306
<i>Crataegus monogyna</i>	Hawthorn	1+1	60-80cm	Bare Root	20%	24	408
<i>Cornus sanguinea</i>	Dogwood	1+2	60-80cm	Bare Root	15%	18	306
<i>Corylus avellana</i>	Hazel	1+2	60-80cm	Bare Root	10%	12	204
<i>Frangula alnus</i>	Alder buckthorn	1+1	60-80cm	Bare Root	10%	12	204
<i>Prunus spinosa</i>	Blackthorn	1+1	60-80cm	Bare Root	20%	24	408
<i>Rosa canina</i>	Dog rose	1+1	60-80cm	Bare Root	5%	6	102
<i>Viburnum opulus</i>	Guelder rose	1+2	60-80cm	Bare Root	5%	6	102
					100%	120	2,040

**Notes:** To be planted at 3 plants per linear metre, in 4 staggered rows spaced at approximately 45cm apart. To be planted with a sinuous and naturalistic edge (not as a line). 1m buffer strip between edge of river and native planting to allow marginal plants to colonise.

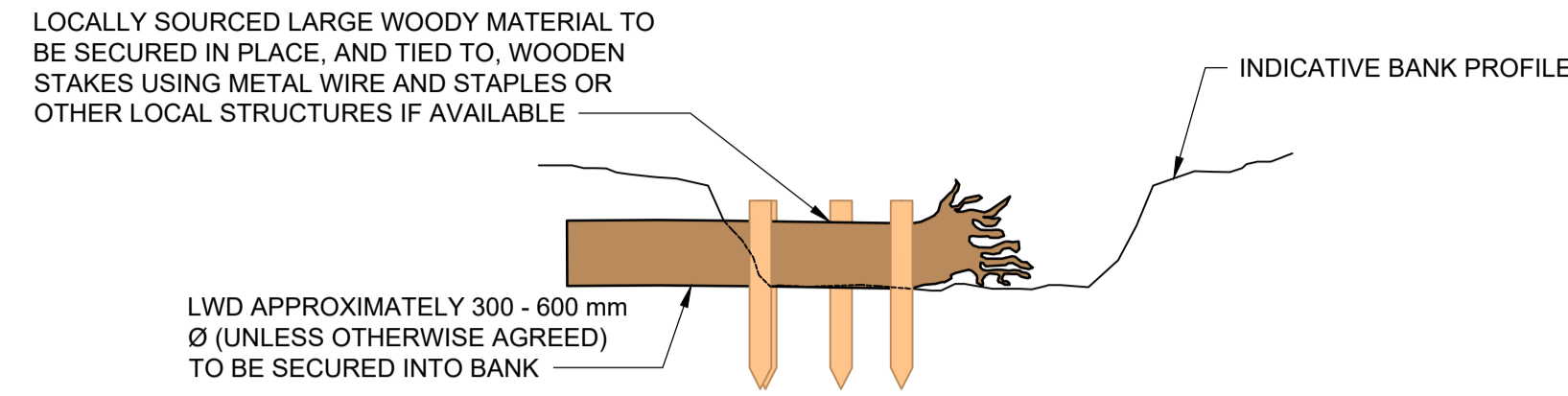
This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability, whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

- ALL DIMENSIONS ARE IN METRES AND LEVELS IN MILLIMETRES ABOVE ORDINANCE DATUM, UNLESS STATED OTHERWISE. DO NOT SCALE FROM THIS DRAWING.
- TYPICAL SECTIONS ARE DRAWN TO ILLUSTRATIVELY GUIDE THE CONTRACTOR ON WHAT TO CONSTRUCT. THESE MEASURES ARE SUPPOSED TO BE NATURAL AND THEREFORE MAY NOT EXACTLY MATCH THESE DETAILS.



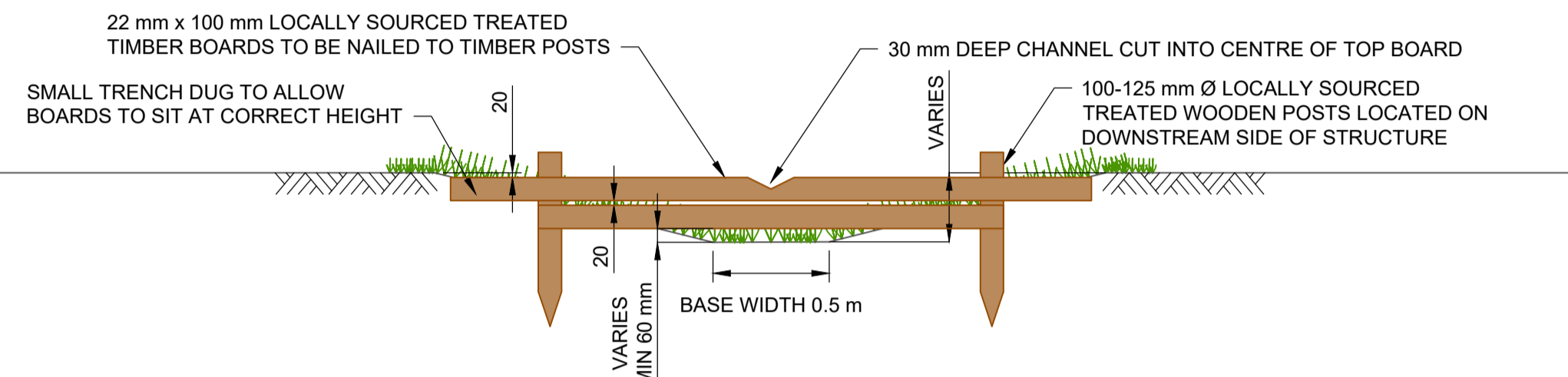
**SWALE TYPICAL SECTION**

Scale 1:25



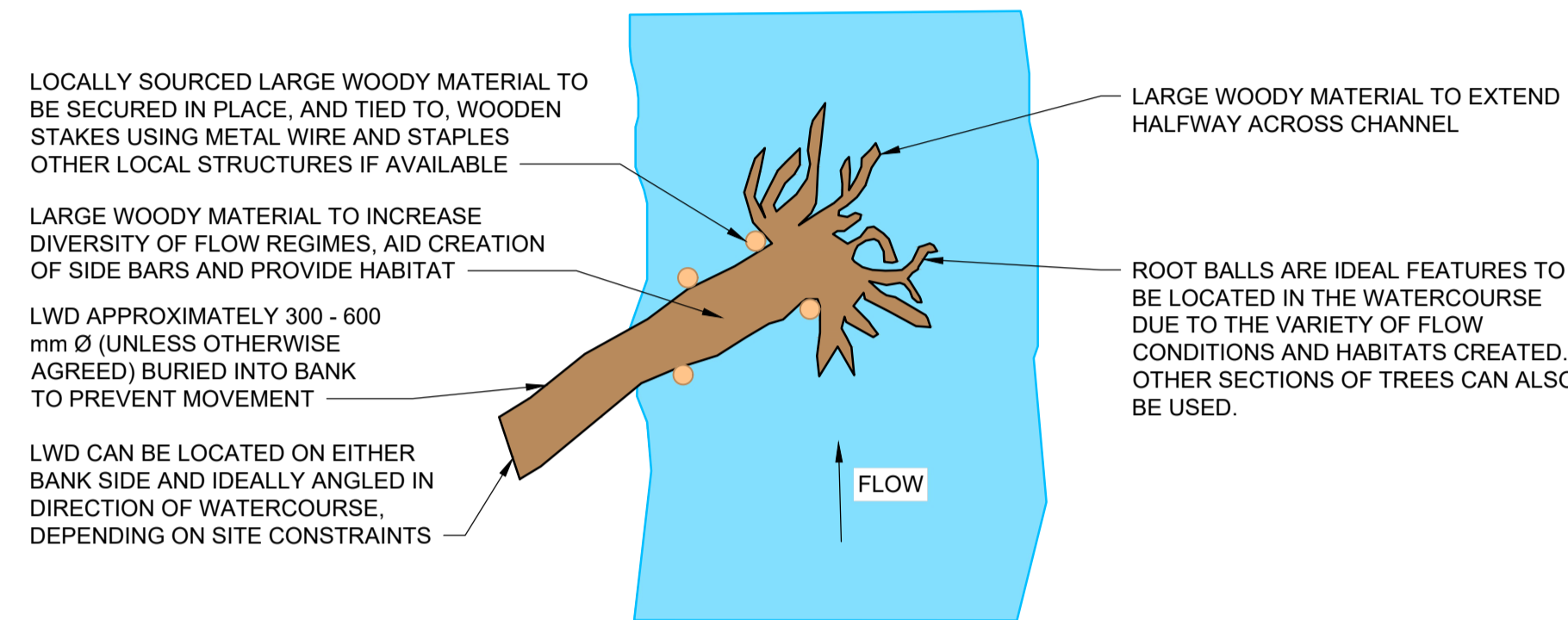
**LARGE WOODY DEBRIS (LWD) SECTION**

Scale 1:50



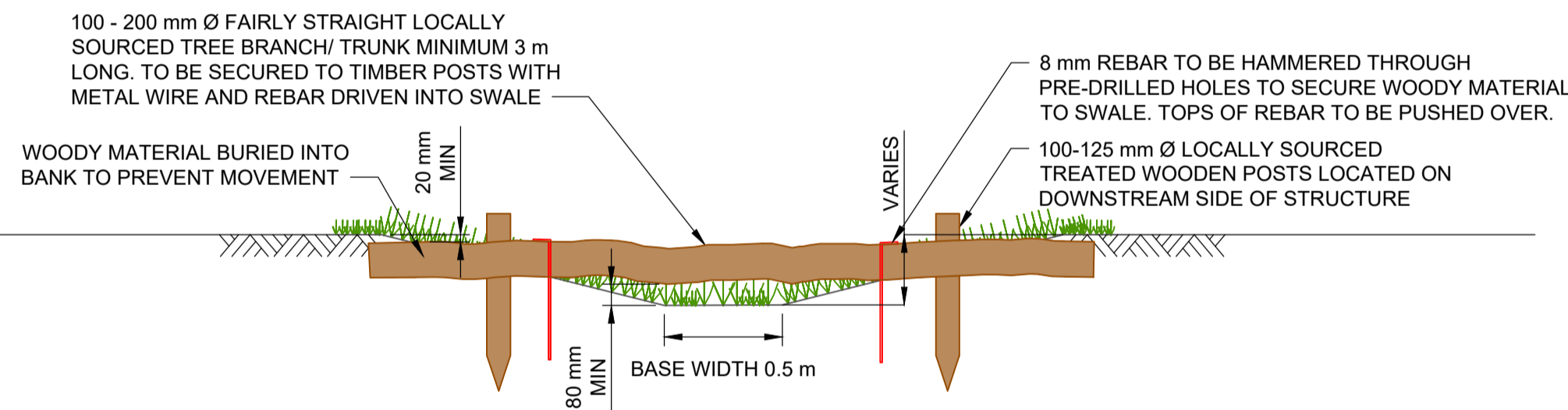
**SWALE CHECK DAM TYPICAL SECTION: TIMBER OPTION**

Scale 1:25



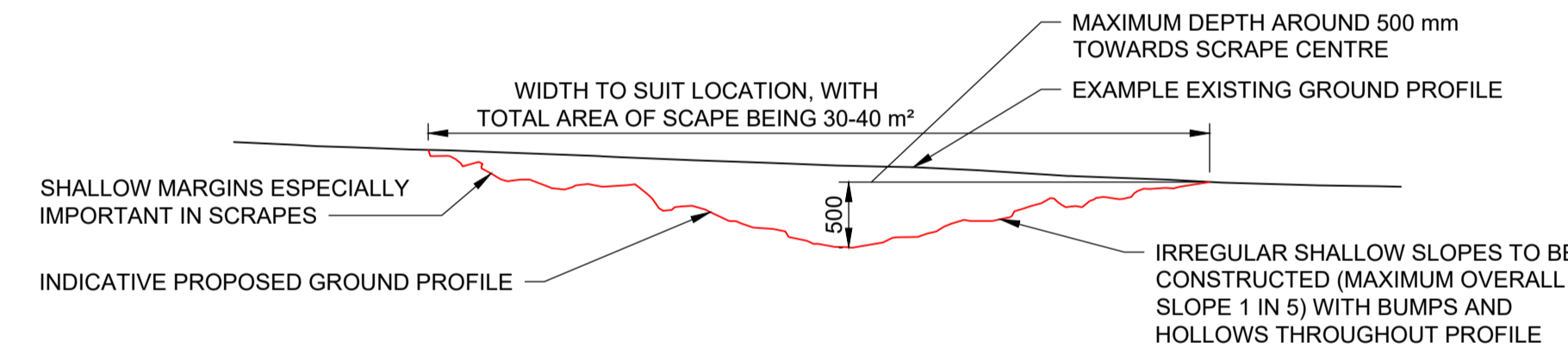
**LARGE WOODY DEBRIS (LWD) PLAN**

Scale 1:50



**SWALE CHECK DAM TYPICAL SECTION: NATURAL OPTION**

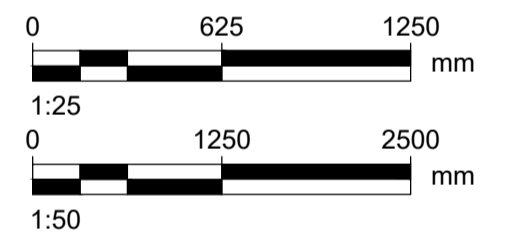
Scale 1:25



**SHALLOW SCRAPE TYPICAL SECTION**

Scale 1:50

DRAFT



ISSUE/REVISION

I/R	DATE	DESCRIPTION
P01	12/02/2021	ISSUED FOR COMMENT

ISSUE PURPOSE / SUITABILITY

Draft issue for comment

PROJECT NUMBER

60647294

SHEET TITLE

PROJECT WIDE TYPICAL DETAILS

SHEET NUMBER

60647294-ACM-XX-ZZ-DR-CE-050001

# LANDSCAPE PLANTING SPECIFICATION

## Ground Preparation Vegetation Clearance

- All grass and other herbaceous vegetation shall be cut to a height of between 50 mm and 75 mm and the arisings, litter and building debris and stone over 75mm in diameter likely to adversely affect planting and seeding operations is to be removed and disposed of off Site.
- The Contractor shall apply a non-residual translocated herbicide in accordance with manufacturer's instructions to all areas to be planted/seeded between 21 and 25 days prior to planting/seeding.
- Where the area to be treated with herbicide has been cut the Contractor shall await active vegetative re-growth sufficient for the herbicide to be at its most effective before applying the herbicide.
- The treatment for total herbicide control shall kill all treated growth including their root systems. The Contractor shall not commence any cultivation of the areas where herbicide has been applied until the vegetation has been effectively controlled.
- All arising from weed control will be removed from site, except for areas of weeds covered by legislation that require specific handling, e.g. Japanese knotweed. Japanese knotweed will be treated as controlled waste and treated in accordance with the Environment Agency Japanese Knotweed Code of Practice 'Managing Japanese knotweed on development sites' if moved or disturbed by the works

## SEEDING

### General information

- Seed shall comprise the mixture(s) stated within the seed schedule.
- Grass seed shall comply with BS4428: 1989.
- Seed shall be sown between 1 March to 31 May or 1 September to 31 October. Seed immediately after seed bed preparation to minimise erosion and capping.

### Conventional Sowing

- Sowing shall be carried out by evenly distributing the seed at a rate based upon the manufacturer's recommendations and as identified in the seed schedule. Seed shall be sown on or just under 1cm of the soil surface.
- Sowing shall be immediately followed by lightly raking the surface of the soil to cover the seeds, and by firming the seed with a roll or by treading to give good soil/seed contact.

## PLANTING

### Plant specification

- All plants shall comply with BS 3936: Parts 1 to 10, BS 8545 and the National Plant Specification.
- Plant material shall be supplied as identified on the landscape drawings.
- No grafted stock shall be supplied unless it is stated that grafted plants are permitted.

### Plant provenance

- All plant material shall be grown in the UK. Native plant material shall have an origin and provenance from Region of Provenance and native-seed zone 405, as defined in Forestry Commission Practice Note 8: Using Local Stock for Planting Native Trees and Shrubs. All plants shall have appropriate certification that demonstrates species authenticity, purity of variety, seed source, area of plant growth and area of final plant harvest.

### Planting density

- Planting shall be spaced according to the density as identified on the landscape drawings.
- All plants are to be planted in mixed groups; the groups shall be laid out in such a way as to avoid repetition and clumping of same species groups. Planting layouts shall appear to be random and shall avoid straight lines and regular geometric patterns.

### Plant handling and transport

- Plants shall be lifted, packed and handled in accordance with BS 3936, BS 8545 and the National Plant Specification: Handling and Establishment.
- Plants shall be protected from wind, frost, overheating and other adverse conditions at all times between lifting and planting.
- Suitable packaging shall be provided to protect plants and enable plant roots to be kept moist. Bare root plants to be supplied in bags containing and enclosing the whole root system.
- Special care shall be taken to avoid damage in loading, transit and unloading.
- Plants should be checked upon delivery and any plants which are +/-20% of the specification for height and root collar diameter should be rejected.

### Storage of plants

- Where possible, the storage of plants shall be avoided, and plants shall be transported to the Site and planted in their permanent positions immediately after lifting. Plants shall not be stored on the Site for more than three days without being planted.
- Bare root plants. Prior to despatch or on arrival at Site, plants may be stored for up to three days in bundles with a covering of freely draining moisture-retentive material such as wet sacking or straw which is moistened periodically. For a storage period of more than three days, bundles shall be opened and the plants spread out and heeled into trenches in topsoil, minimum depth 300mm, with the roots fully in contact with the soil. Water to eliminate air pockets.
- Bare-root plants transported in plastic bags. Plants in bags shall be stored no more than one layer deep and be protected from direct sunlight at all times. Where delay of more than one day occurs, the bags shall be stored upright, not stacked, in a cool shady position or shed, or placed in a cold store. If cold store facilities are not available, plants shall be removed from bags and heeled into soil with all roots covered.
- The location for temporary storage shall be in a secure area, protected from site operations and over exposure to adverse weather conditions.
- When necessary, additional measures shall be undertaken to protect plants from frost. Any plants damaged by frost, desiccation, or in any other way prior to planting, shall be removed from site and replaced with new plants of the same species and specification.
- All labels, canes and ties shall be removed following planting.
- All other arisings from the planting including containers, wrappings, paddings, fastenings and bags shall be collected immediately by the Contractor and removed off Site.

### Time of Planting

- The planting season for bare root stock shall be 1 November to 31 March.
- All planting shall be carried out during favourable soil and weather conditions. Soil conditions should be moist and friable. No planting or preparatory operations shall take place when the ground is frost bound, covered by snow, excessively wet or waterlogged, or in excessively dry or windy conditions.

### Planting for Whips and Trees

- Whips shall be notch-planted upright into a T-shaped opening of sufficient size for the roots of bare-root plants to be fully spread out.
- The roots of any bare rooted plants shall be pruned of any damaged portions and spread out in the planting hole to match their original growth habit. With the plant upright, fine soil shall be spread over and around the roots in small quantities, working the plant up and down to ensure even distribution and intimate contact between the roots and soil. The soil shall be firmed around the roots.
- Tree pits to be 75mm deeper than root system and wide enough to accommodate roots when fully spread. For sloping ground, maintain horizontal bases and vertical sides with no less than minimum depth throughout. For excavated material, separate topsoil and subsoil material and stockpile for backfilling. Excavate pit bottoms with slightly raised centre and break up base to a depth of 150mm. Scarify pit sides. For backfilling material, use excavated tree pit material, installed to original soil profiles in accordance with BS 8545.
- On completion of planting operations, all disturbed accesses to, and ground around the planted areas shall be completely reinstated to their former condition prior to planting.

### Plant Protection

- Whips should be protected from mammal browsing by an extruded plastic spiral guard, supported on a bamboo cane. Spiral guards shall be of sufficient length to prevent damage by gnawing animals.
- All trees to be protected by single staked 1800x300mm weld mesh guard.

### Watering

- Plants shall be thoroughly watered immediately after planting so that the entire planting pit is moistened to field capacity. Supply a minimum of 4.5 litres of water per whip apply immediately following planting and 25 litres per tree.

### Safety Precautions

- The landscape sub-contractor is to take all safety precautions to prevent any injury to any persons. The landscape sub-contractor shall comply with the requirements of the Health & Safety at Work Act 1974 and current Construction, Design and Management Regulations.



## PROJECT

# UPPER DARENT NATURAL FLOOD MANAGEMENT PHASE 2

## CLIENT

Kent County Council  
 Sessions House, County Road  
 Maidstone, Kent  
 ME14 1XQ  
 T:+44(0)-300-041-4141  
 www.kent.gov.uk

## CONSULTANT

AECOM  
 2 City Walk, Leeds  
 LS11 9AR  
 T:+44(0)-113-301-8400  
 www.aecom.com

## NOTES

TO BE READ IN CONJUNCTION WITH  
 DRAWINGS:  
 60647294-ACM-XX-01-DR-LA-010001  
 60647294-ACM-XX-03-DR-LA-010001  
 60647294-ACM-XX-04-DR-LA-010001

DRAFT

## ISSUE/REVISION

I/R	DATE	DESCRIPTION
P01	12/02/2021	ISSUED FOR COMMENT

## ISSUE PURPOSE / SUITABILITY

Draft issue for comment

## PROJECT NUMBER

60647294

## SHEET TITLE

NFM DARENT  
LANDSCAPE PLANTING SPECIFICATION

## SHEET NUMBER

60647294-ACM-XX-ZZ-DR-LA-010001