

## Sandleford Park



### **CONSTRUCTION METHOD STATEMENT FOR THE VALLEY CROSSING, CROOK'S COPSE LINK AND SUDs / DRAINAGE FEATURES**

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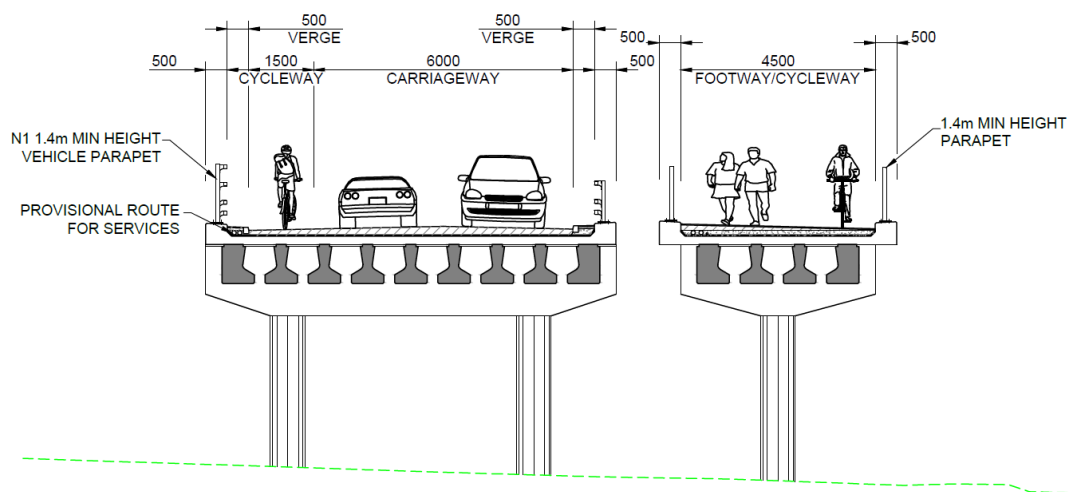
## 1. Introduction

- 1.1 This note provides a preliminary method statement for the construction of:
  - a) the Valley Crossing,
  - b) Crook's Copse link, and
  - c) the drainage basins / swales
- 1.2 Indicative proposals for each element are included in the relevant section for clarity.
- 1.3 The methods set out in this note will be refined as necessary based on updated assessments / information at the time of construction, in conjunction with all relevant technical specialists. The Appellant's Ecologist and Arboriculturalist will certainly be involved throughout this process.
- 1.4 The tree protection will be installed in accordance with the approved Arboricultural Method Statement prior to any works commencing, in full accordance with the requirements of the relevant condition. The Ecological Mitigation will also be implemented in full accordance with the condition requirements.

## 2. The Valley Crossing Construction Overview

- 2.1 The indicative proposals for the Valley Crossing include a bridge measuring 120 metres in length from abutment to abutment and 16 metres in width. The crossing facilitates access for vehicles and pedestrians on separate structures. The bridge piers are shown at 26m intervals maximising the open spans below the carriageway and minimising the impact of construction work within the wetland corridor.
- 2.2 The bridge abutments are shown to be minimalistic in their design, supporting the bridge from both North to South with single retaining structures and minimal groundwork to the landscape adjacent to the abutments.
- 2.3 Refer to appendix A for technical drawings, an extract of drawing ref. VD17562-SK024 Rev 1, of said appendix is shown below for clarity.

Valley Crossing – indicative bridge design referred to as the ‘Valley Crossing’ providing vehicles and segregated pedestrian access through the development



- 2.4 A more detailed construction programme will be formulated in due course. It is intended that a singular temporary haul road (4 metres in width on average) will be laid on a geotextile for ease of complete removal on completion of access to the Valley Crossing at an early stage. Utilising one temporary haul road, from which all construction activity will take place will reduce the environmental impact of construction.

### Preventing contamination

- 2.6 Where the design allows, the use of off-site manufacturing will be encouraged to allow the bridge to be constructed on site at speed and with minimal impact with respect to the surrounding environment. This will substantially reduce the number of delivery vehicles by utilising pre-cast alternatives which are clean and quick to assemble.
- 2.7 Service voids within the bridge surfacing will allow for utilities to be placed without the need for additional excavation in the wetland corridor to place electric, gas, water and telecoms supplies to the new development.
- 2.8 The final design of the bridge foundations is unknown at this stage, however, it is likely that the foundations will be piled. Based on a piling foundation strategy, piling operations will take place during normal site working hours and will be restricted to the footprint of the bridge supports, which are likely to be 4 sets spaced at 26m intervals.
- 2.9 Piling will be carried out along the haul road which will offer a clean surface to construct from and allow for waste materials to be moved offsite, without affecting the Valley Crossing environment.

### Preventing flooding

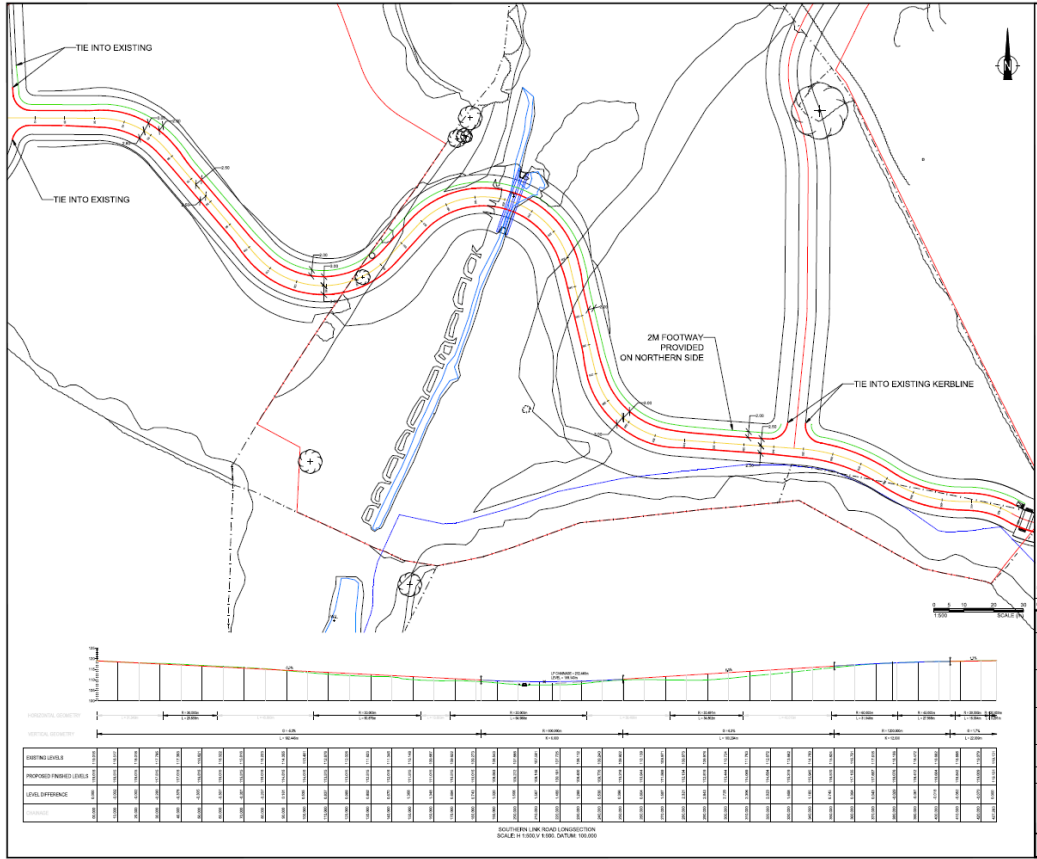
- 2.10 Clear, unobstructed flows of the Valley will be carefully managed throughout the construction of the bridge supports, utilising culvert(s) under the haul road as required with existing surface water being conveyed to culvert(s) via a combination of temporary cut off ditches and swales as required. Once construction of the abutments is complete, the haul road (and temporary drainage features) will be removed in their entirety and the area will be replanted, in accordance with the ecological mitigation / landscape requirements.

### Minimising the construction impact

- 2.11 All construction access into the Valley Crossing will be kept to a minimum. Where construction is required, this will be controlled utilising one temporary haul road that will be laid on a geotextile for ease of complete removal on completion of access to Valley Crossing. Pre-cast bridge decks would ideally be lifted into position utilising the associated temporary haul road, or lifted into position utilising the new bridge decks, to reduce activity within the Valley Crossing. The affected construction area(s) will be reinstated back to its original state (as necessary) following removal of any temporary haul road. There may be some limited use of the Valley Crossing banks, however this will be kept to a minimum.

### 3. Crook’s Copse Link Construction Overview

3.1 The indicative proposals for Crook’s Copse link include the culvert of the existing watercourse to enable the link road to be constructed. It is likely that the road would be circa 5.5 metres in width with an additional 2 metre footpath on the northern side of the road with associated banks. This is shown indicatively on extract of drawing ref. VD17562-SK021 Rev B of Appendix 4 of the Valley Crossing Study (ref. Core Document CD6.3) below.



#### Preventing contamination

3.2 During construction of the culvert crossing, the watercourse will be managed to allow for clear unobstructed flows at all times. This would effectively mitigate suspended solids entering into the existing watercourse.

#### Preventing flooding

3.3 The watercourse will be unobstructed at all times, which will prevent flooding during construction. The culvert would be sized appropriately so that current available drainage volume would remain as agreed with the Lead Local Flood Authority, again to manage the flow of water accordingly.

### Minimising the construction impact

- 3.4 Bloor would seek to utilise the newly constructed road leading to the works area to construct the culvert, thus a separate route is not required to facilitate construction. It is likely that temporary track mats will be required within the works zone to enable the culvert to be placed in-situ to lessen the harm caused to the existing area. Whilst construction phasing is not yet programmed in detail, it is envisaged that works would be phased in a sequential way to minimise any environmental impacts.

## 4. SuDs / Drainage Features Construction Overview

- 4.1 The drainage strategy for the sites proposes the use of SuDS, being a combination of swales and detention basins across the development, in order to control surface water run off into the existing watercourse. The inclusion of SuDs throughout the site removes the risk of surface water flooding throughout the new development catchments. The illustrative surface water drainage strategy ref. 10309-DR-03 Rev A is attached at Appendix C. An extract of the illustrative masterplan is also included below for information.

Indicative surface water treatment including drainage basins, swales, ditches and ponds.



### Preventing contamination

- 4.2 The construction of the drainage features will be closely monitored to ensure that any associated risks are properly mitigated, e.g. surface water contamination and localised flooding.
- 4.3 Surface water runoff during construction will be conveyed to settlement ponds via a combination of temporary cut off ditches and swales. These measures will limit and remove suspended solids and other pollutants contained in the runoff.



#### Preventing flooding

- 4.4 The final development includes Sustainable Drainage Systems (SuDS) in the form of swales and attenuation basins to ensure that the site discharge rate does not exceed that permitted by the relevant Local Authorities.
- 4.5 The attenuation will be constructed as early as practicable in the construction process. Simple outlet flow controls will be installed to maintain discharge rates prior to discharging to on-site watercourses.
- 4.6 The Brookbanks Flood Risk Assessment and Drainage Strategy confirms that;

*“In terms of fluvial and tidal flood risk, the site lies almost entirely within Flood Zone 1 and hence has a low probability of flooding from this mechanism. All built development will lie within Flood Zone 1. Assessment of other potential flooding mechanisms show the land to have a low probability of flooding from overland flow, ground water and sewer flooding.”*

#### Minimising the construction impact

- 4.7 When working on or near SUDS features within an existing established landscape (including wetland and scrub areas) the impact of vehicular plant will be mitigated as follows;
- All works will take place wherever possible outside the 15 metre woodland buffer. Works within the buffer will be minimised and will only occur where this is unavoidable. Specialist (long arm) equipment will be utilised to limit vehicular movement within the buffers to limit environmental impacts, one example of such equipment is shown below:



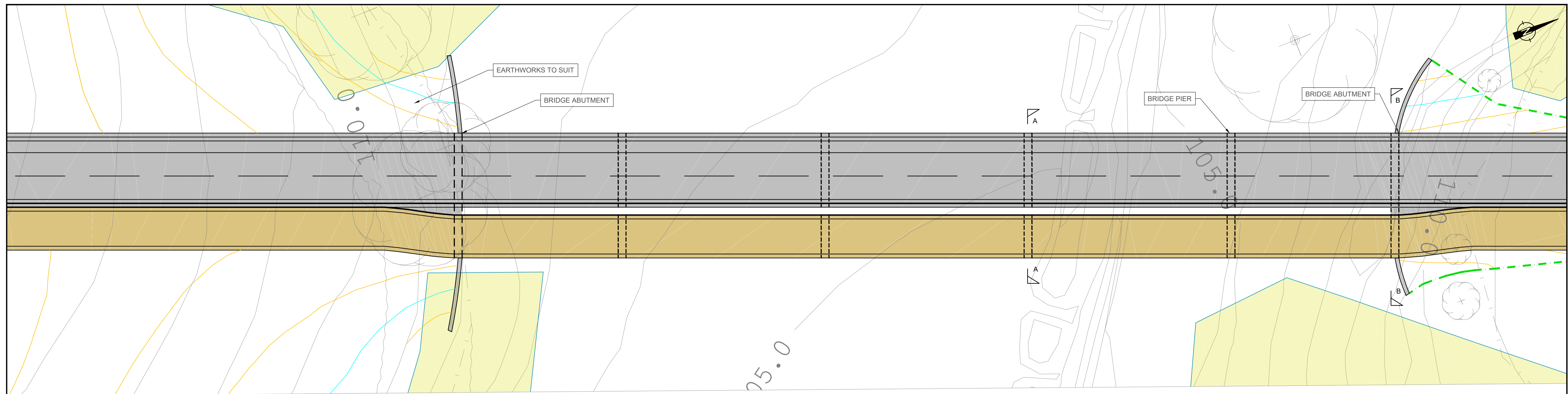
- Tracked plant will be preferable to wheeled plant in all instances to prevent wheel slippage and disturbance of the substrate when moving between work areas.
  - Where appropriate, track mats will be deployed to reduce the impact of plant travelling over non-construction/completed areas.
  - In the event that track mats are not practicable, a temporary haul road will be laid on a geotextile for ease of complete removal on completion of access to SUDS construction zones.
  - Travel corridors to and from work areas across areas of wetland and established habitats will be minimised through the use of single vehicle width haul routes managed by banksmen and if necessary, stop/go boards. Suitable passing places will be provided on routes with long travel distances. All operatives will be briefed to remain within the travel corridor to reduce the impact of vehicular plant on established grassed areas and to prevent localised compaction of topsoil.
- 4.8 Areas of newly formed basins, swales and ponds will be planted and/or seeded as soon as reasonably practicable and with regard to seasonal weather conditions to establish good soil retention through established planting and to prevent scouring of drainage features during periods of heavy rainfall.
- 4.9 A detailed construction programme, to include phasing to manage and minimise disruption will be prepared in due course. Whilst construction phasing is not yet programmed in detail, it is envisaged that works would be phased in a sequential way to minimise any environmental impacts.
- 4.10 Once construction is complete, any construction equipment will be removed in its entirety and the area returned to its original state (as necessary).

## 5. Water Quality Management

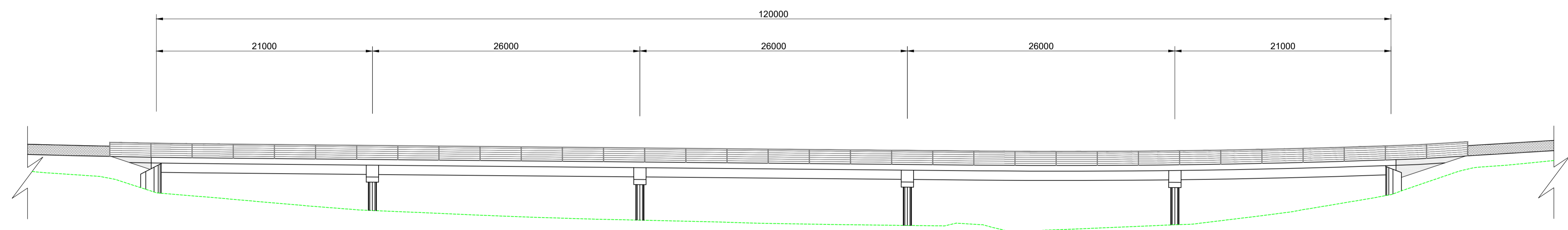
- 5.1 The construction phasing and operational areas of the site will be carefully planned to reduce the risk of water pollution into the adjacent water courses.
- 5.2 To ensure no detriment to water quality in the receiving catchment, suspended solids and other pollutants in surface water runoff generated from the construction site will be managed at the site by incorporating a construction phase sediment control plan. This plan will utilise a range of methods to limit and remove suspended soils and other pollutants from runoff. Such measures include the use of a phased approach to the top soil stripping, implementation of temporary settlement ponds, filter strips, swales and cut-off ditches.
- 5.3 Surface water runoff from the active construction areas of the site will be conveyed to the settlement ponds via a combination of cut-off ditches, swales and pumping where gravity flow to the ponds is not achievable. Pre-treatment of flows prior to arrival at the ponds will be undertaken where practical through use of grassed / vegetated buffer strips and the presence of simple check dams (formed using straw bales, small clay based impoundments, timber 'stop log' obstructions or similar) within the conveyance ditches to encourage pre- settlement of suspended solids.

## Appendices

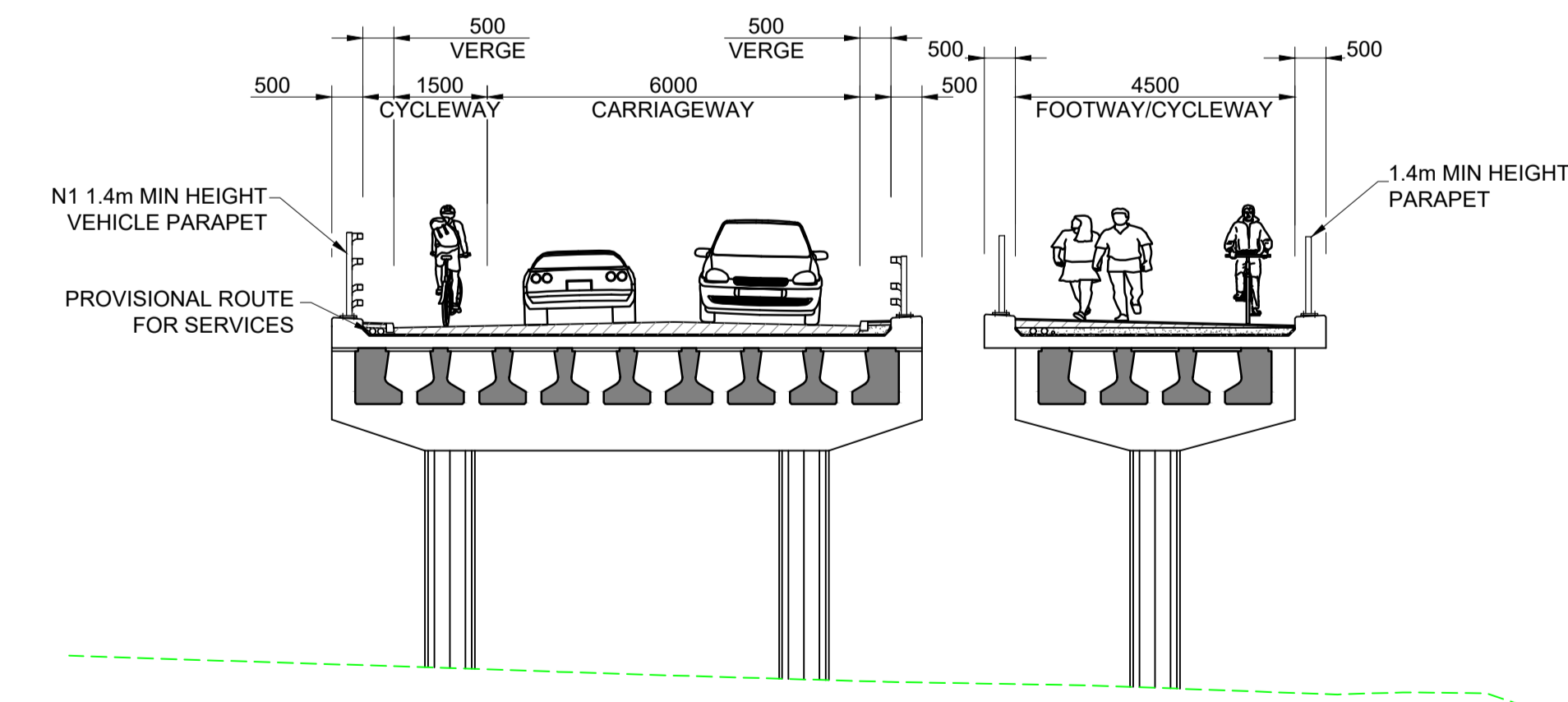
- a. Drawing title; PROPOSED PARALLEL STRUCTURES  
STRAIGHT ALIGNMENT 5 SPAN OPTION  
Drawing number; VD17562-STR-SK-004 Rev 2  
Filename; App 41 Revised Bridge Abutment VD17562-STR-004 Rev 2.pdf
  
- b. Drawing title: PROPOSED VEHICULAR/ PEDESTRIAN  
STRAIGHT ALIGNMENT BRIDGE 5 SPAN OPTION  
Drawing number; VD17562-SK024 rev 1  
Filename; App 4b Revised Bridge Abutment VD17562-SK024 Rev 1.pdf
  
- c. Illustrative Surface Water Drainage Strategy drawing ref. 10309-DR-03 Rev 1 (Appendix B of Lee Witts' Proof of Evidence)



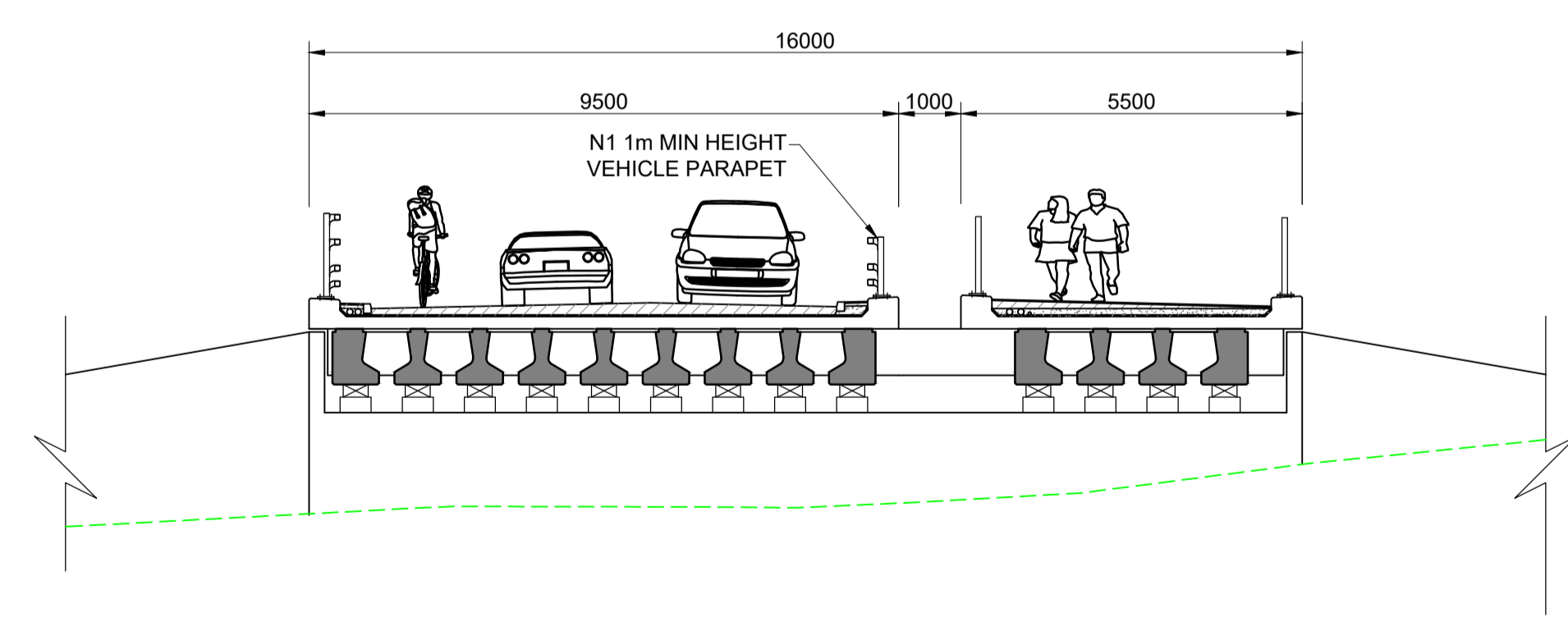
PLAN  
Scale 1:250



EAST ELEVATION  
scale 1:250



SECTION A-A  
scale 1:100



SECTION B-B  
scale 1:100

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REV	DETAILS	DRAWN	CHECKED	APPROVED	DATE
1	FIRST ISSUE	CR	PFM	NS	12.03.21
2	CHANGES TO PARAPETS	CR	PFM	NS	16.03.21

NOTES:  
1. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED

KEY:  
 - - - - - EXISTING GROUND LEVEL  
 - - - - - EXTENTS OF EARTHWORKS

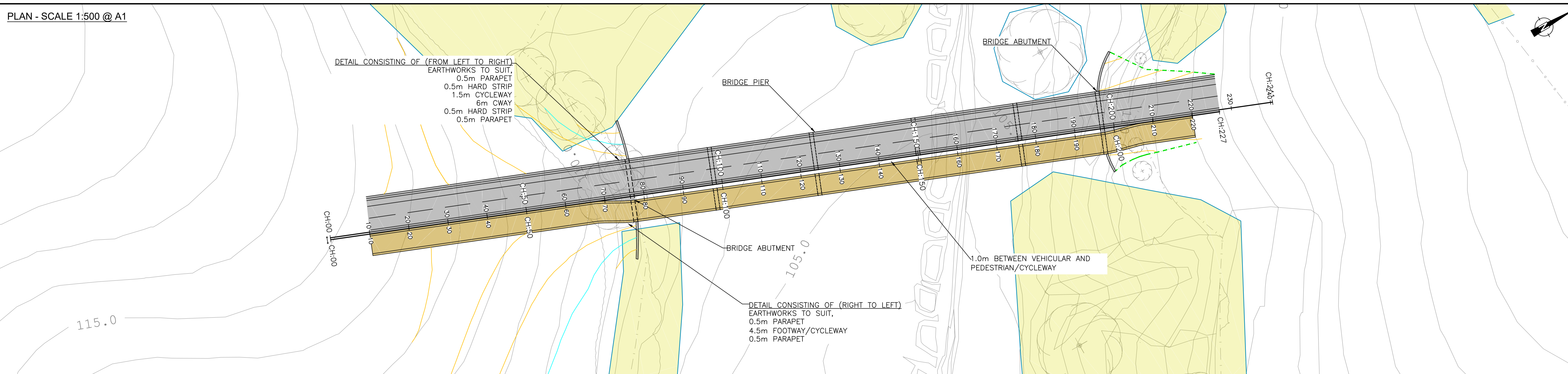
PROJECT:  
SANDLEFORD PARK, NEWBURY

CLIENT:  
BLOOR HOMES

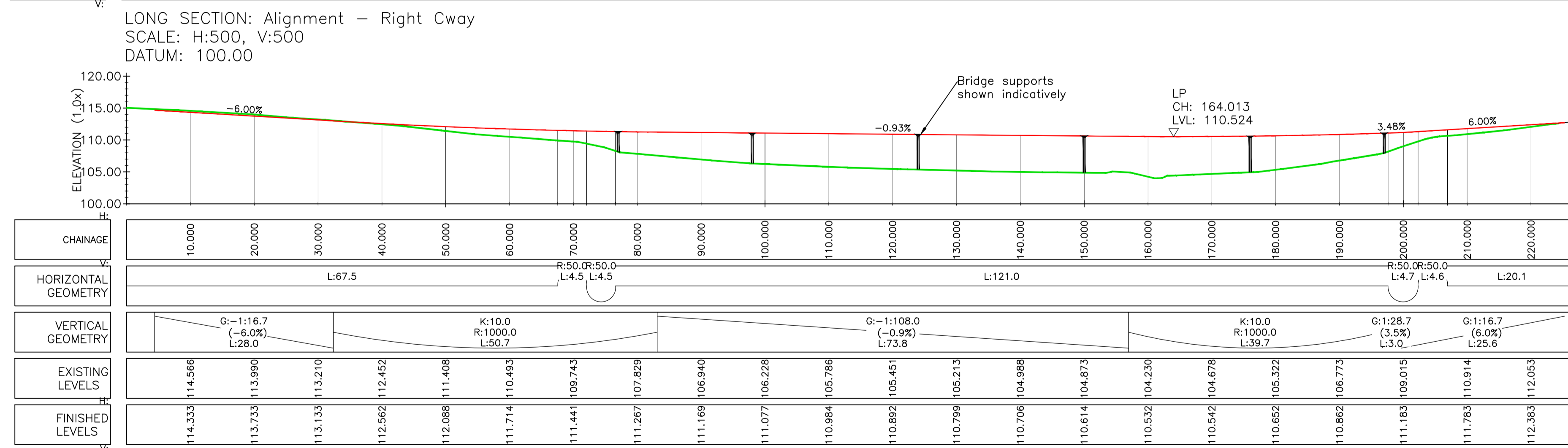
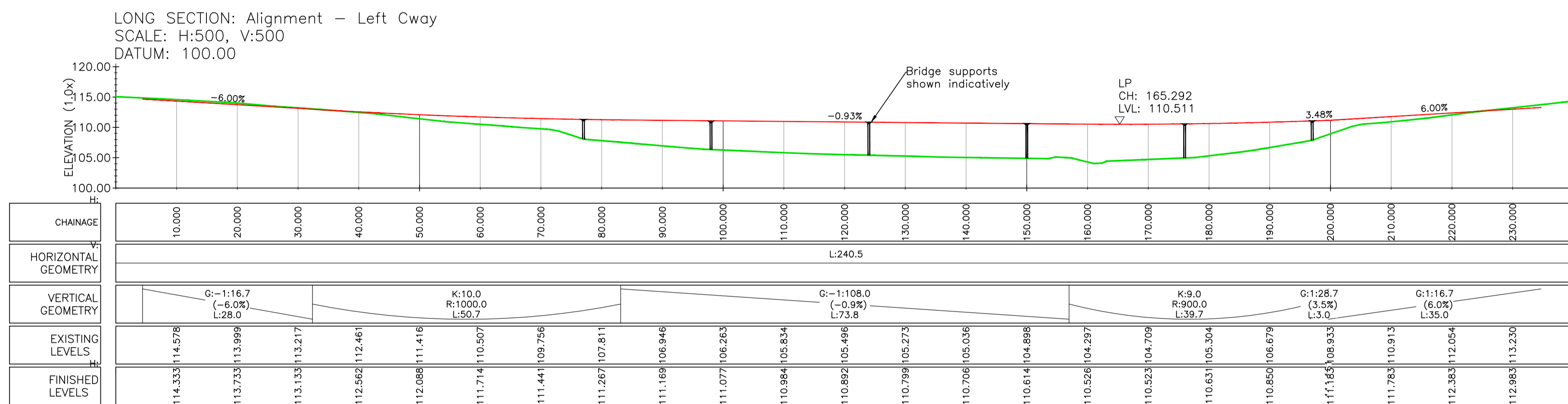
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PROPOSED PARALLEL STRUCTURES  
STRAIGHT ALIGNMENT 5 SPAN OPTION

DRAWN	CHECKED	APPROVED	DATE	SCALES
CR	PFM	NS	12/03/2021	AS SHOWN

DRAWING NUMBER: VD17562-STR-SK-004  
REVISION: 2




LONGECTIONS - SCALE 1:500 @ A1

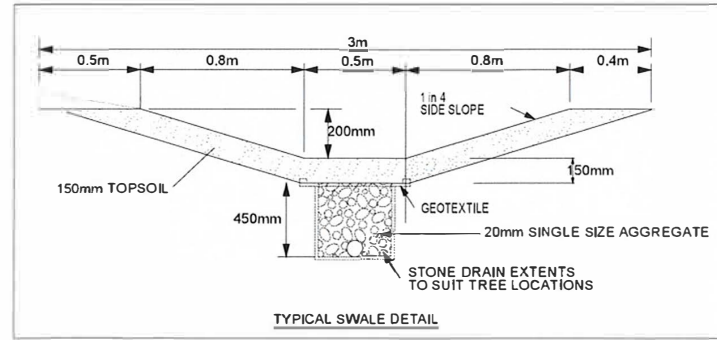


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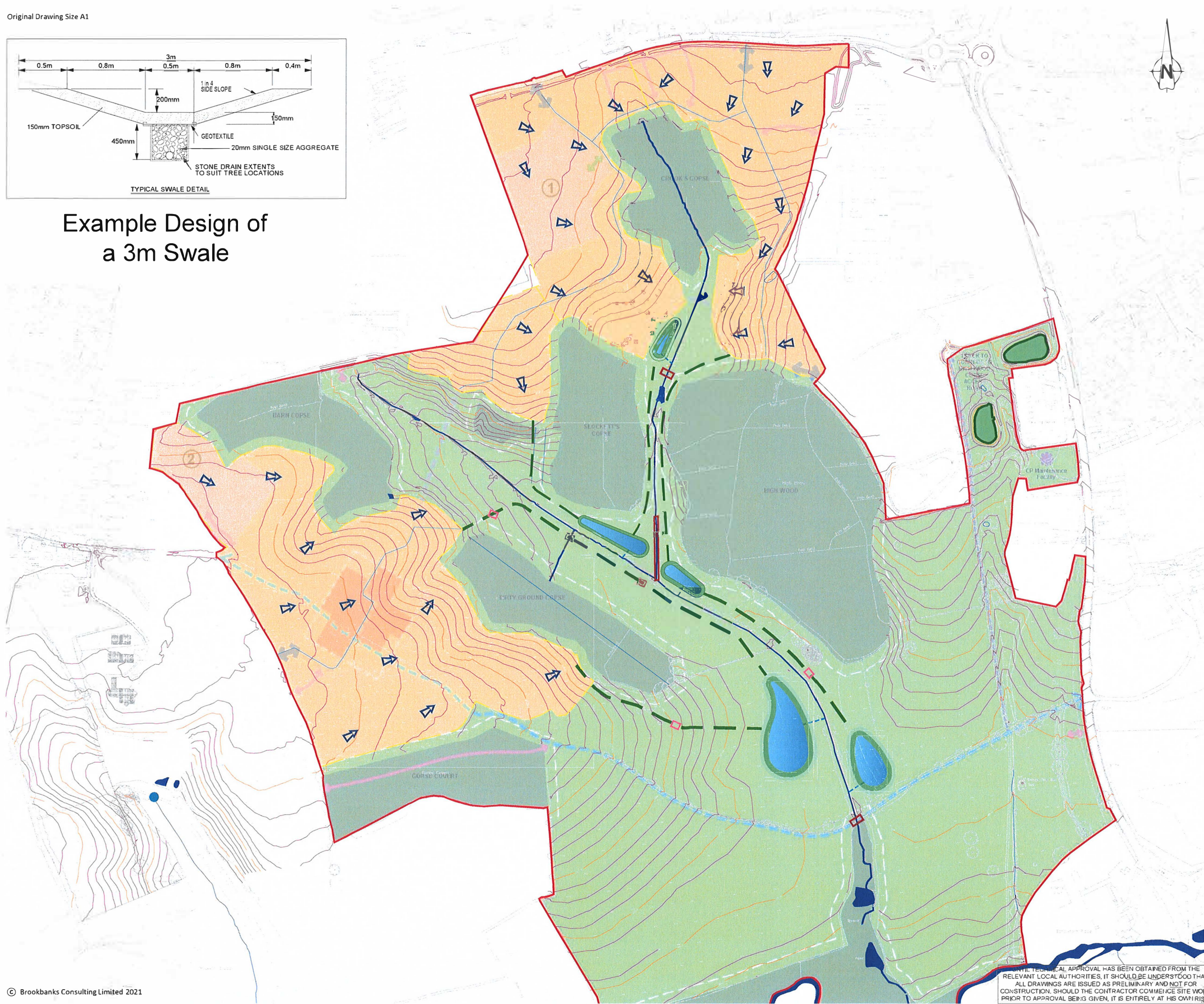
REV.	DETAILS	DRAWN	CHECKED	APPROVED	DATE	REV.

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  - WHITE LINING IS INDICATIVE ONLY.

PROJECT: <b>SANDLEFORD PARK, NEWBURY</b>		CLIENT: <b>BLOOR HOMES</b>	
DRAWING TITLE: <b>PROPOSED VEHICULAR/ PEDESTRIAN STRAIGHT ALIGNMENT BRIDGE 5 SPAN OPTION</b>		 <small>4th Floor Oxford Place, 61 Oxford Street, Manchester, M1 6EQ</small>	
DRAWN: CR	CHECKED: NS	APPROVED: NS	DATE: 12.03.21
SCALES: Scale 1:500 at A1		DRAWING NUMBER: VD17562-SK024	REVISION: 1



## Example Design of a 3m Swale



**Construction Design and Management (CDM)**  
**Key Residual Risks**  
 Contractors entering the site should gain permission from the relevant land owners and/or principal contractor working on site at the time of entry. Contractors shall be responsible for carrying out their own risk assessments and for liaising with the relevant services companies and authorities. Listed below are Site Specific key risks associated with the project.

- 1) Overhead and underground services
- 2) Street Lighting Cables
- 3) Working adjacent to water courses and flood plain
- 4) Soft ground conditions
- 5) Working adjacent to live highways and railway line
- 6) Uncharted services
- 7) Existing buildings with potential asbestos hazards

- NOTES:**
1. Do not scale from this drawing.
  2. All dimensions are in metres unless otherwise stated.
  3. Brookbanks Consulting Ltd has prepared this drawing for the sole use of the client. The drawing may not be relied upon by any other party without the express agreement of the client and Brookbanks Consulting Ltd. Where any data supplied by the client or from other sources has been used, it has been assumed that the information is correct. No responsibility can be accepted by Brookbanks Consulting Ltd for inaccuracies in the data supplied by any other party. The drawing has been produced based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.
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**KEY:**

- Site Boundary
- Development Parcel Catchment Areas (55% impermeable area)
- Existing Flow Direction
- Illustrative SuDS Location
- Proposed Conveyance Channel
- Proposed Outfall from SuDS
- Existing Watercourse
- Existing Culvert to be Retained
- Proposed Culvert Locations
- 5m Contours
- 1m Contours

4 First Issue KM LW LW 19.03.21  
 First Issue KM LW LW 10.03.21

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Bloor Homes Ltd &  
 Sandleford Park Partnership

Land at Sandleford Park  
 Newbury

### Illustrative Surface Water Drainage Strategy

Status	Status Date	
Draft	MAR 2021	
Drawn	Checked	Date
KM	LW	15.03.21
Scale	Number	Rev
NTS	10309-DR-03	A

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