

This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

Notes:

- All dimensions are in millimeters unless stated otherwise.
- This drawing should not be scaled.
- This drawing should be read in conjunction with the below ground drainage drawing(s) and manhole schedule(s).
- This drawing should be read in conjunction with all relevant Architect's, Engineer's and Services Engineer's specifications and drawings.
- All drainage shall be constructed in accordance with the relevant provisions of current Building Regulations, BS EN 752, BS EN 12056 and Sewers for Adoption as appropriate.
- Pre-cast concrete products shall comply with the relevant provisions of BS 5911: Part 2, 200 & 230.
- Details surrounding proprietary products and systems are indicative only, contractor to ensure all systems are installed strictly in accordance with the manufactures details.
- All external manhole covers and frames located within vehicular areas are to be load class D400 and be 150mm deep unless stated otherwise.
- All external manhole covers and frames located within pedestrian areas are to be load class B125 unless stated otherwise.
- All external manhole covers and frames are to be installed square to the building, paving or highway channel lines.
- All external manhole covers and frames shall comply with the relevant provisions of BS EN 124 and BS 7903 and shall be non-ventilated (single sealed) with closed keyways unless stated otherwise.
- All internal manhole covers and frames are to be double sealed and recessed unless stated otherwise.
- All manhole covers located on grease traps are to be double sealed.
- Manhole cover frames shall be bedded on a gauged class 1 (3:1) sand/cement mortar to clause 2402 of SHM - mortar designation (i), and between 2 and 4 courses of engineering brickwork class 'b' to BS EN 771-1:2011 or precast concrete adjusting units - corbelling to be no more than 30mm per course.
- Manholes < 3m deep shall be installed with type d class 1 steps, complying with the requirements of BS EN 13101:2002.
- Manholes > 3m deep shall be installed with an appropriate fixed ladder complying with the requirements of BS EN 14386:2004.
- Where rigid pipes are used, a flexible joint shall be provided as close as is feasible to the outside face of any structure into which a pipe is built, within 150mm for pipe diameters less than 300mm. The design of the joints shall be compatible with any subsequent movement. Rocker pipe lengths shall be in accordance with Table 1, unless stated otherwise.

Table 1	
Nominal Diameter (mm)	Effective Length (m)
150 - 600	0.6
600 - 750	1.0
over 750	1.25

- In situ concrete base and surround shall be class 'GEN3' in accordance with 'BRE Special Digest 1 - Concrete in Aggressive Ground' and the requirement of 'Sewers for Adoption'.

NOT FOR CONSTRUCTION

P1	S2	17.06.22	PDa	HHu	Issued for planning condition discharge
rev	sc	date	by	chk	description

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Project

Proposed Great Wolf Lodge,
Chesterton, Bicester,
Oxfordshire

Drawing title

Typical Below Ground Drainage
Details

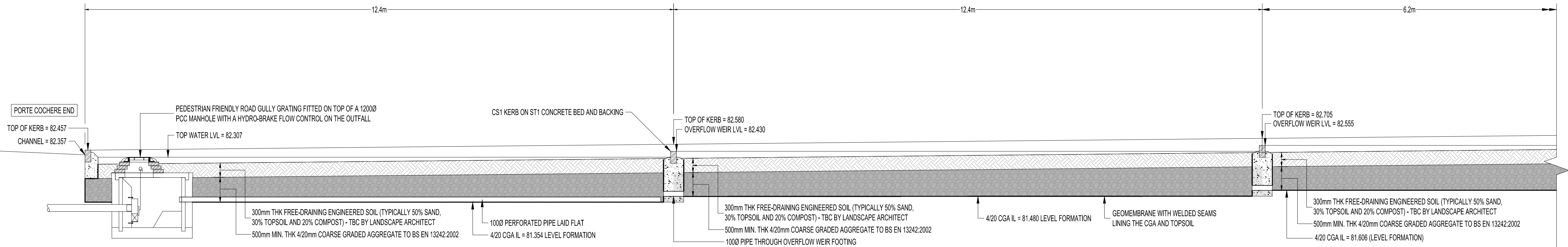
Scale (s) Date Drawn

AS NOTED May 2022 PDa

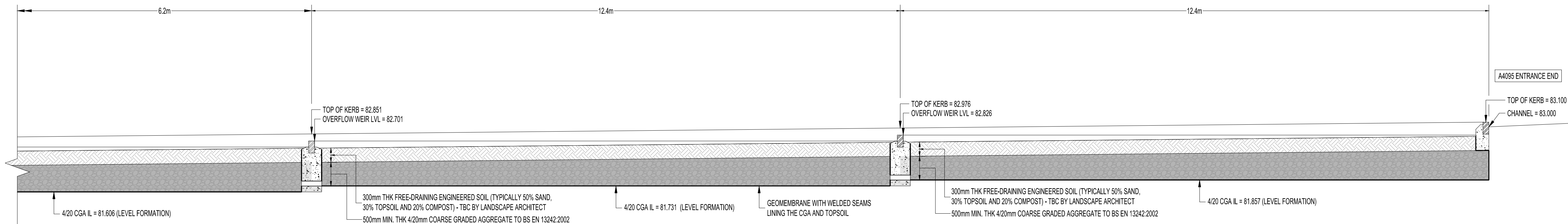
Drawing status Status Revision

Preliminary S2 P1

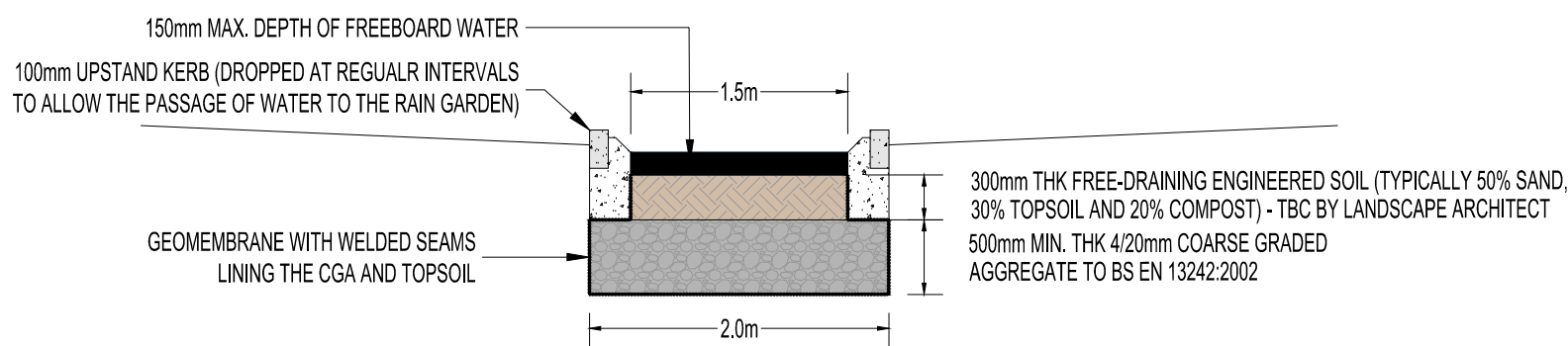
Project no. Originator Zone Level Type Role drg no.
2180501-EWP-ZZ-XX-DT-C-3007



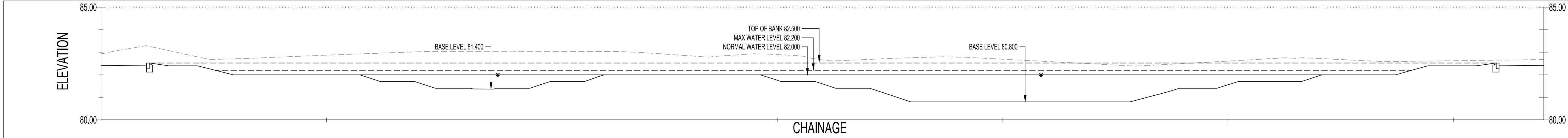
RAIN GARDEN LONGSECTION



RAIN GARDEN LONGSECTION

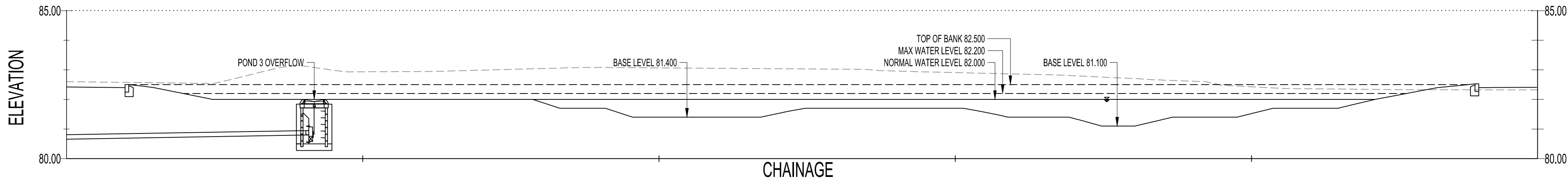


RAIN GARDEN CROSS SECTION



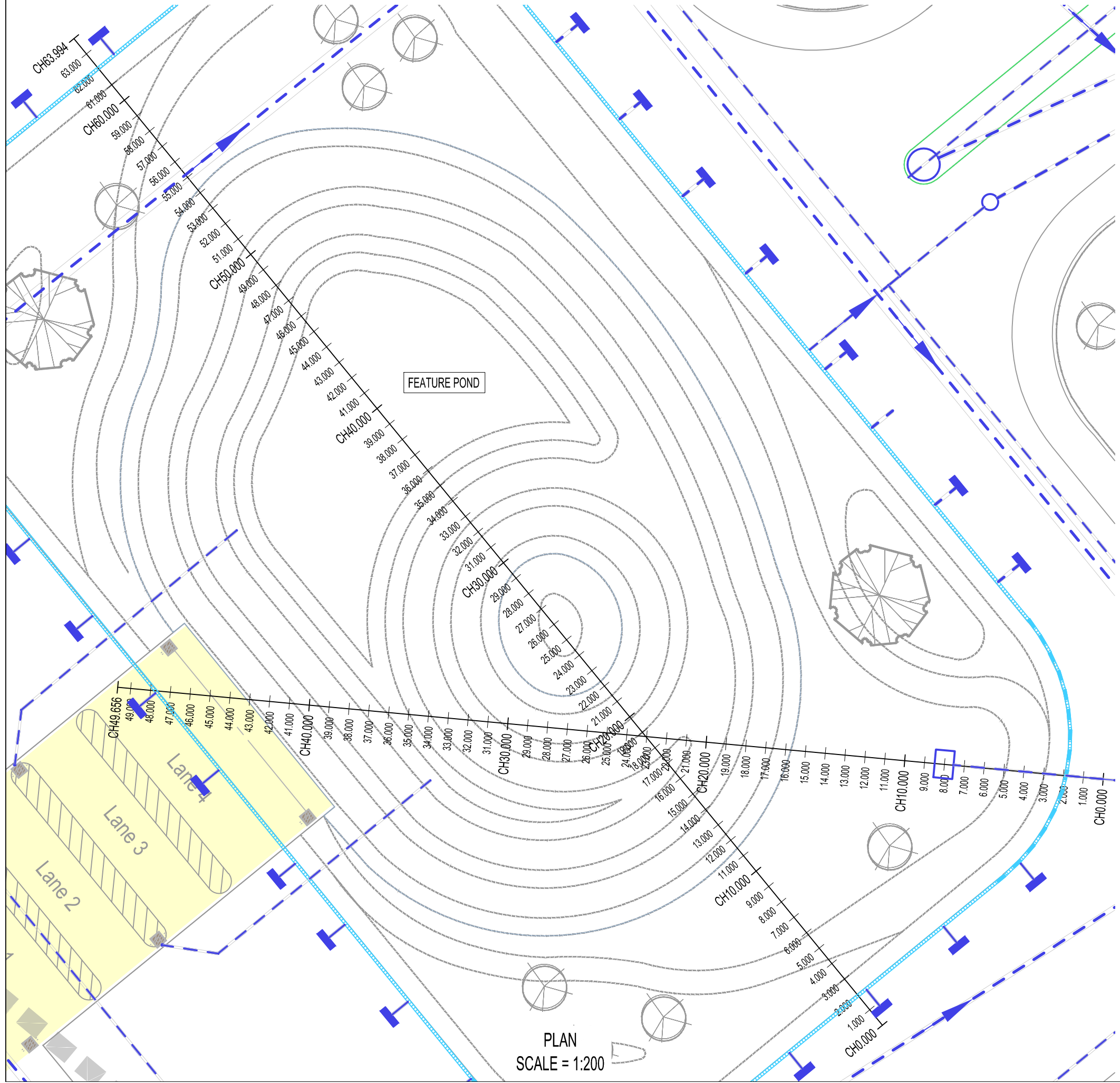
CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	64.000
EXISTING LEVEL	82.930	82.871	83.041	82.898	82.693	82.608	82.525	82.677
PROPOSED LEVEL	82.431	82.000	81.700	81.760	80.800	81.560	82.400	82.420

FEATURE POND LONG SECTION
SCALE = 1:100



CHAINAGE	0.000	10.000	20.000	30.000	40.000	62.441
EXISTING LEVEL	82.600	82.934	83.067	82.936	82.428	
PROPOSED LEVEL	82.420	82.00	81.40	81.70	81.52	

FEATURE POND CROSS SECTION
SCALE = 1:100



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P1	S2	16.06.22	PDa	HHu	Issued for planning condition discharge
rev	sc	date	by	chk	description

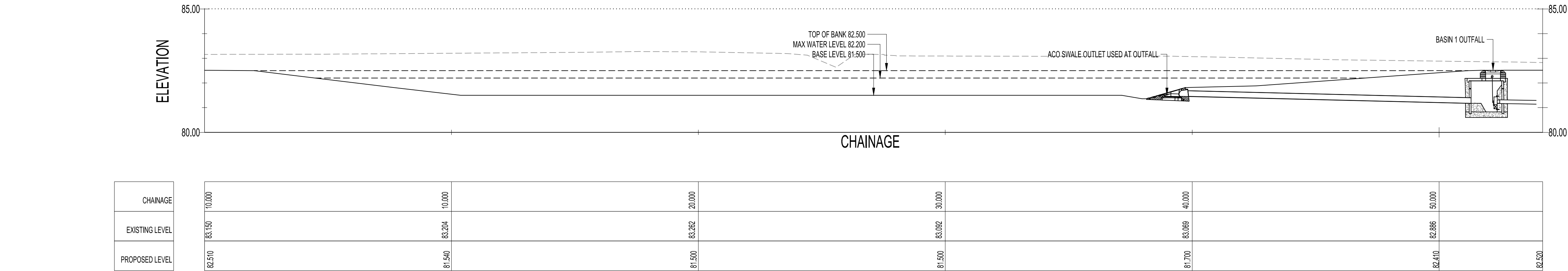
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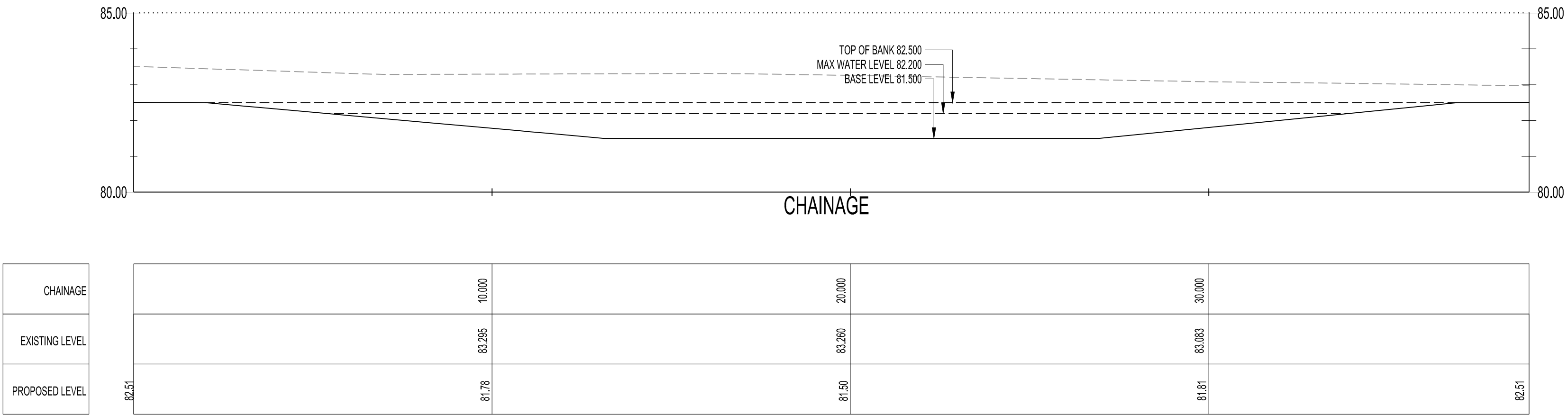
Project
Proposed Great Wolf Lodge,
Chesterton, Bicester,
Oxfordshire

Drawing title
Feature Pond Sections

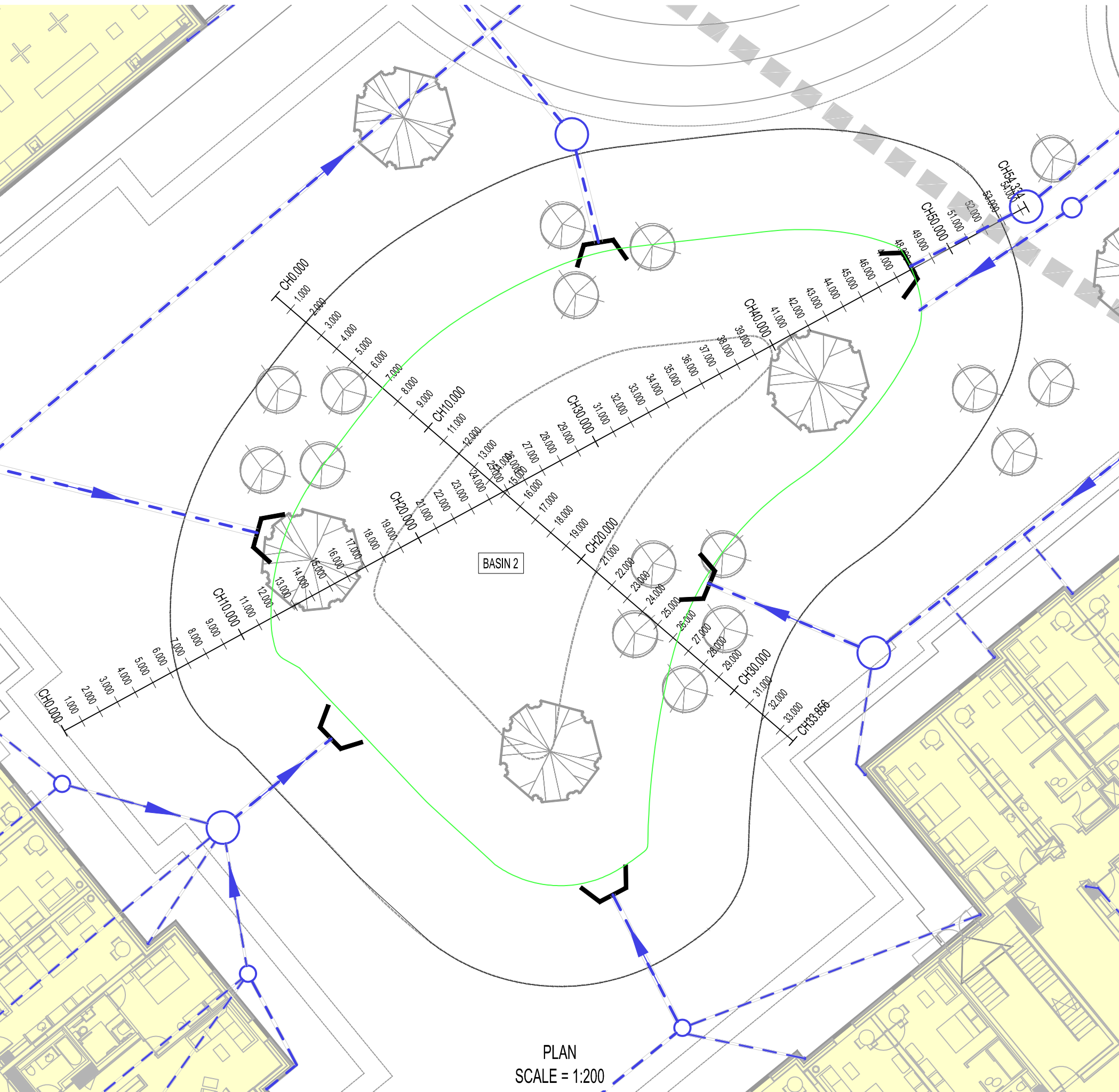
Scale (s)		Date		Drawn		
AS NOTED		June 2022		PD		
Drawing status				Status	Revision	
Preliminary				S2	P1	
Project no.	Originator	Zone	Level	Type	Role	drg no.
2180501	EWP	ZZ	XX	DT	C	3100



BASIN 1 LONG SECTION
SCALE = 1:100



BASIN 1 CROSS SECTION
SCALE = 1:100



PLAN
SCALE = 1:200

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NOT FOR CONSTRUCTION

P1	S2	17.06.22	PDa	HHu	Issued for planning condition discharge
rev	sc	date	by	chk	description

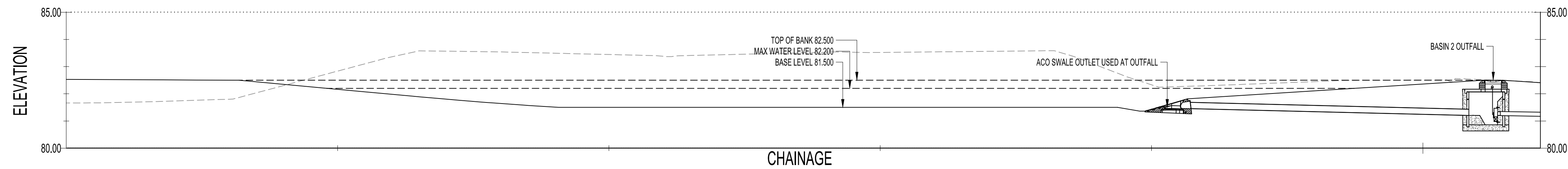
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Project
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Oxfordshire

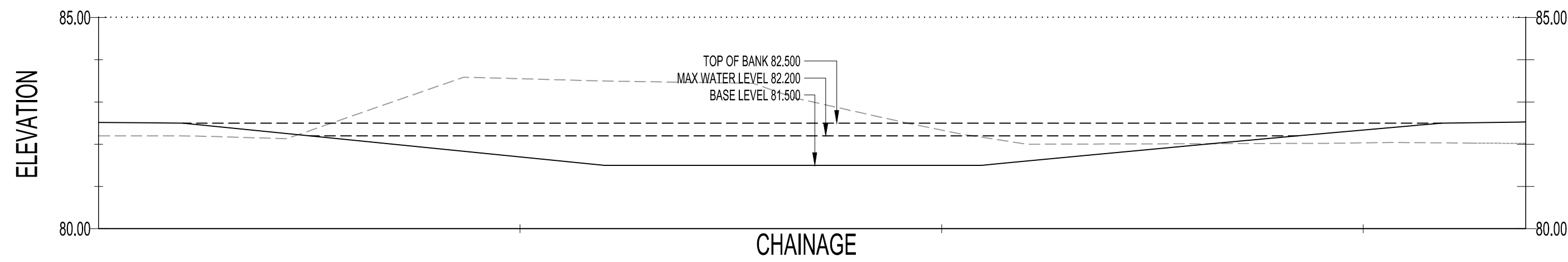
Drawing title
Basin 1 Sections

Scale (s)	Date					Drawn
AS NOTED	June 2022					PDa
Drawing status					Status	Revision
Preliminary					S2	P1
Project no.	Originator	Zone	Level	Type	Role	drg no.
2180501	EWP	ZZ	XX	DT	C	3101



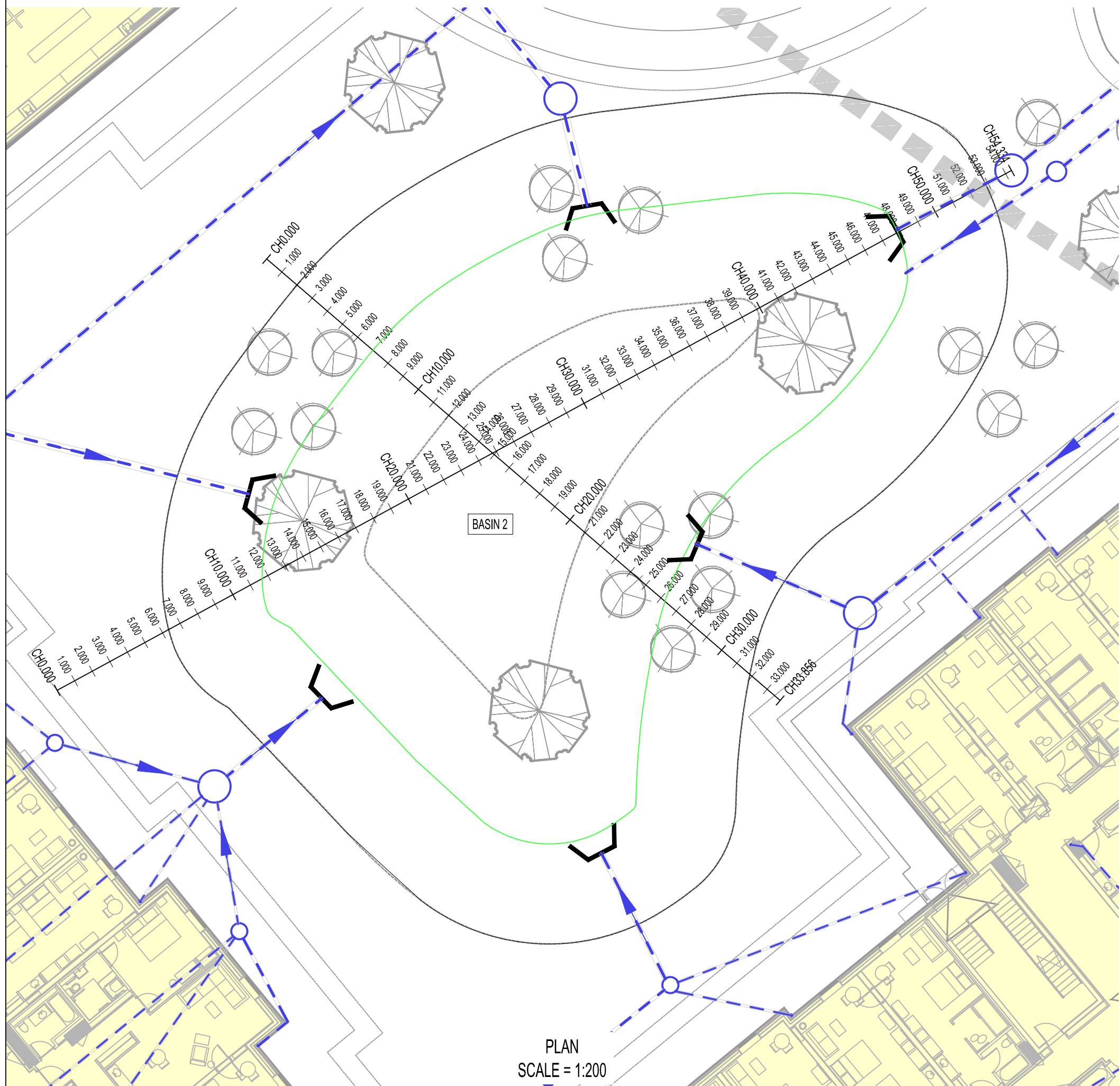
CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000
EXISTING LEVEL	81.662	82.885	83.445	83.522	82.331	82.596
PROPOSED LEVEL	82.451	82.830	83.450	83.520	82.330	82.510

BASIN 2 LONG SECTION
SCALE = 1:100



CHAINAGE	0.000	10.000	20.000	30.000	33.856
EXISTING LEVEL	83.851	83.851	82.334	82.032	82.529
PROPOSED LEVEL	81.70	81.70	81.50	82.34	82.000

BASIN 2 CROSS SECTION
SCALE = 1:100



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NOT FOR CONSTRUCTION

P1	S2	17.06.22	PDa	HHu	Issued for planning condition discharge
rev	sc	date	by	chk	description

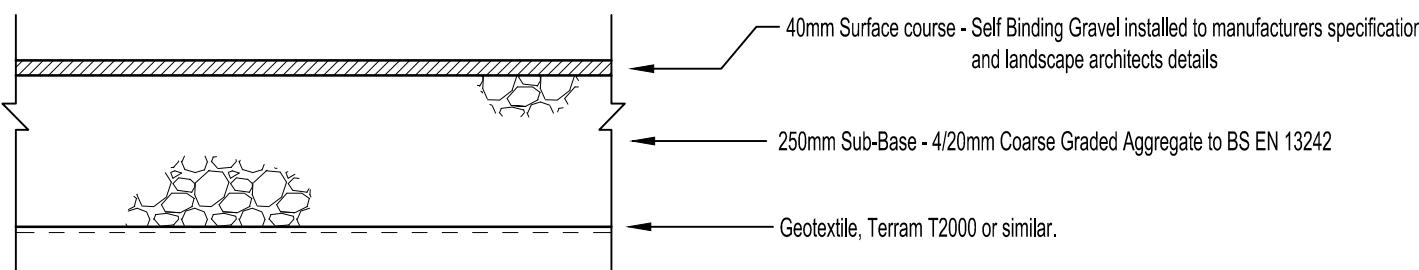
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Project
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Oxfordshire

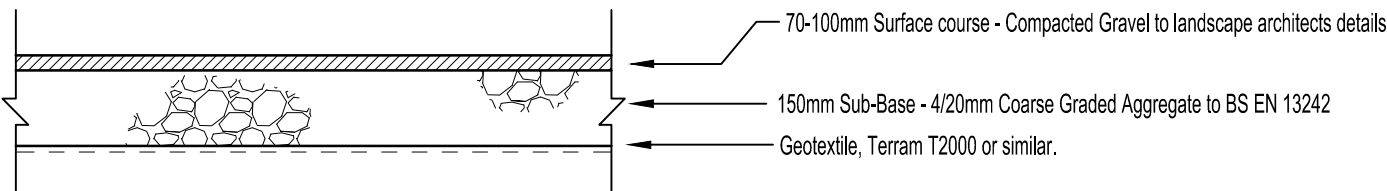
Drawing title
Basin 2 Sections

Scale (s)		Date			Drawn	
AS NOTED		June 2022			PDa	
Drawing status				Status	Revision	
Preliminary				S2	P1	
Project no.	Originator	Zone	Level	Type	Role	drg no.
2180501-EWP-ZZ-XX-DT-C-3102						



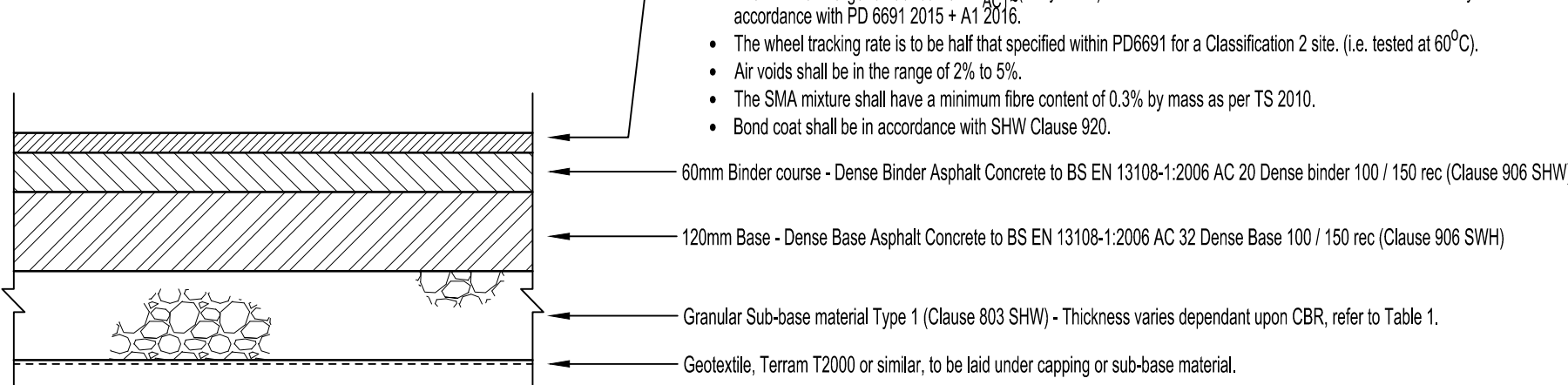
Self Bound Gravel Footpath

* Sub-base is based on a minimum CBR of 3%.
Note: NO vehicle overrun is permitted



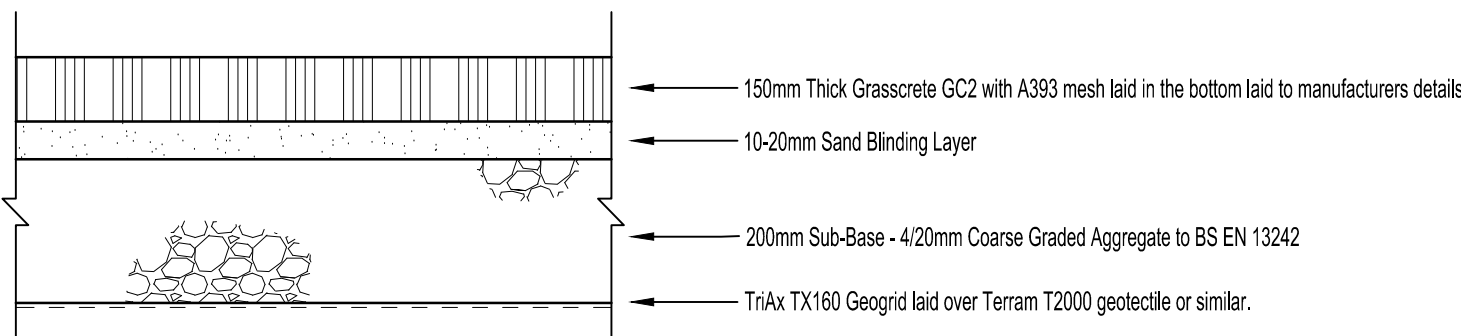
Gravel Footpath

* Sub-base is based on a minimum CBR of 3%.
Note: NO vehicle overrun is permitted



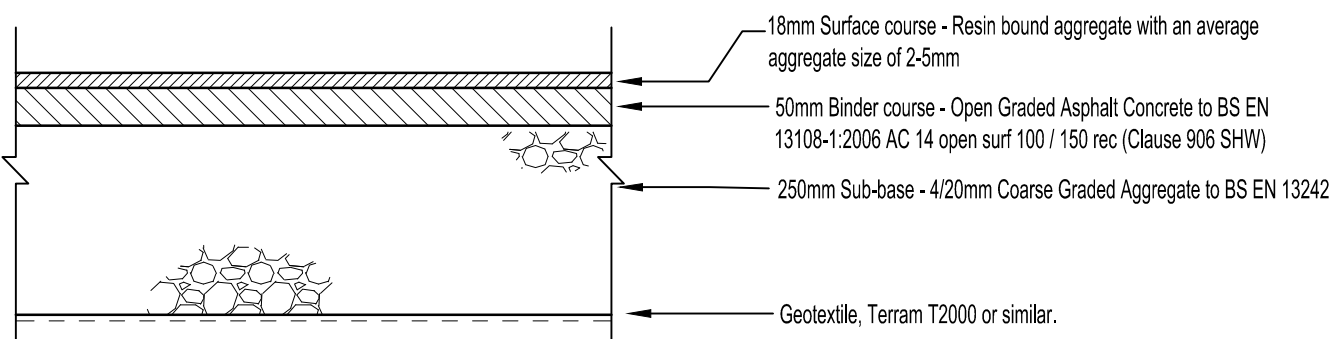
Permanent Asphalt Road

* 30mm surface course can be omitted in interim temporary condition
** Sub-base and Capping thicknesses are based upon a minimum CBR of 5%.
Following positive CBR tests, these construction thicknesses can be decreased as indicated in Table 1.



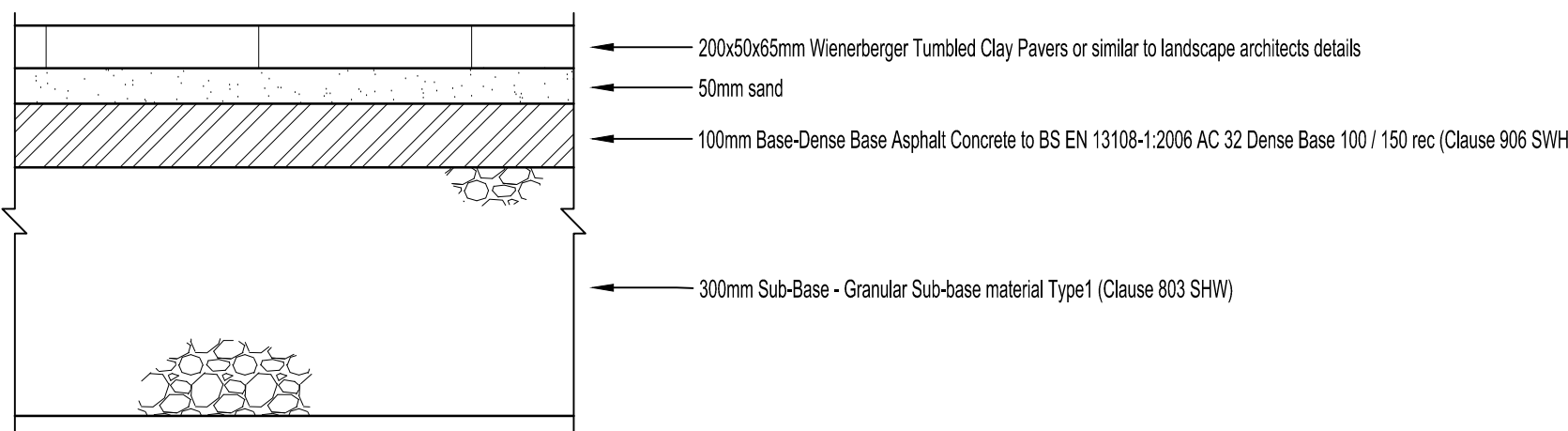
Grasscrete Reinforced Grass

Grasscrete by Grasscrete, refer to manufacturers installation guides.
TriAx TX160 by Tensar, refer to manufacturers installation guides.



Resin Bound Gravel Gravel Footpath

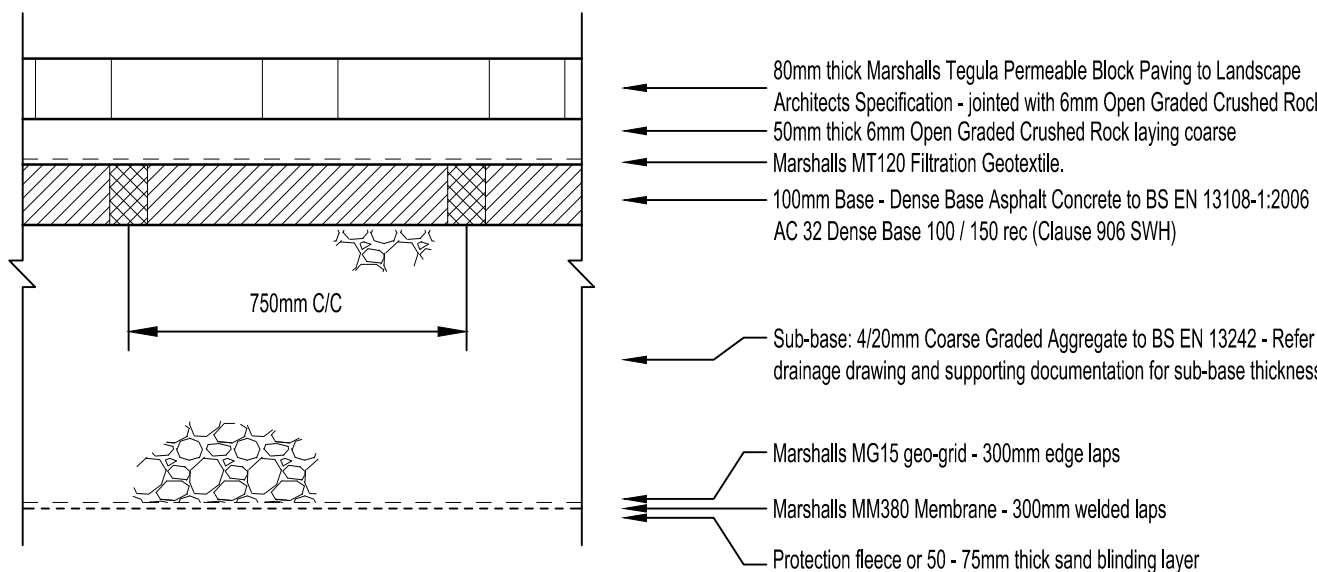
* Sub-base is based on a minimum CBR of 3%.
Note: NO vehicle overrun is permitted



Block Paving Heavy Footpath

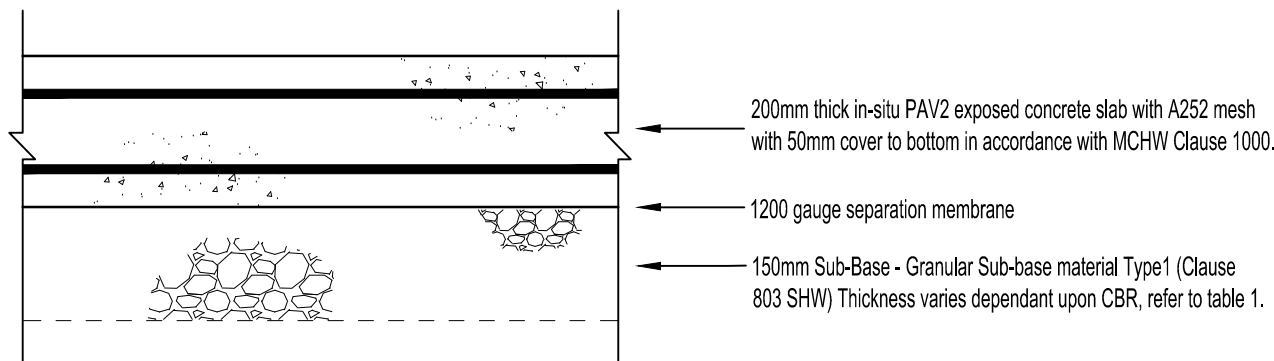
* Paver size may vary dependant on product installed
** sub-base thickness is based upon a minimum CBR of 3%. If on site CBR test results are greater then the construction thickness may be reduced - refer to Table 1.

Note: This is for use where there is uncertainty about the type of overrun or if the footway is adjacent to a busy road and overrun is not prevented by some physical means. This does not include pedestrian areas that see a significant amount of delivery vehicles-it allows for 1 heavy vehicle per day for 40 years.



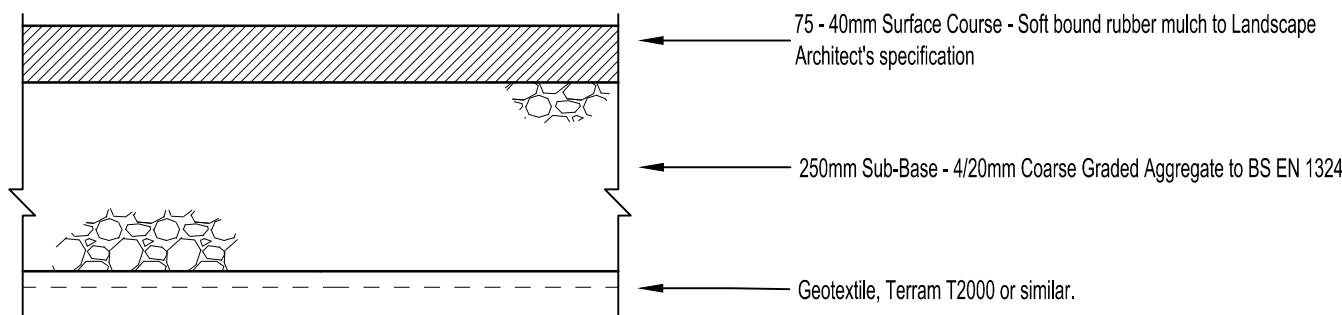
Porous Block Paving

- Buildup is suitable for subgrade with CBR 3%.
- Core 50mm diameter holes at 750mm centres through the DBM surface into the sub-base, fill holes with 6mm open graded crushed rock.
- Pavement concrete build-up is typical - Contractor is to obtain a site-specific design from their chosen manufacture and present it to the engineer for approval in advance of starting the works.



Concrete Base to Storage Area

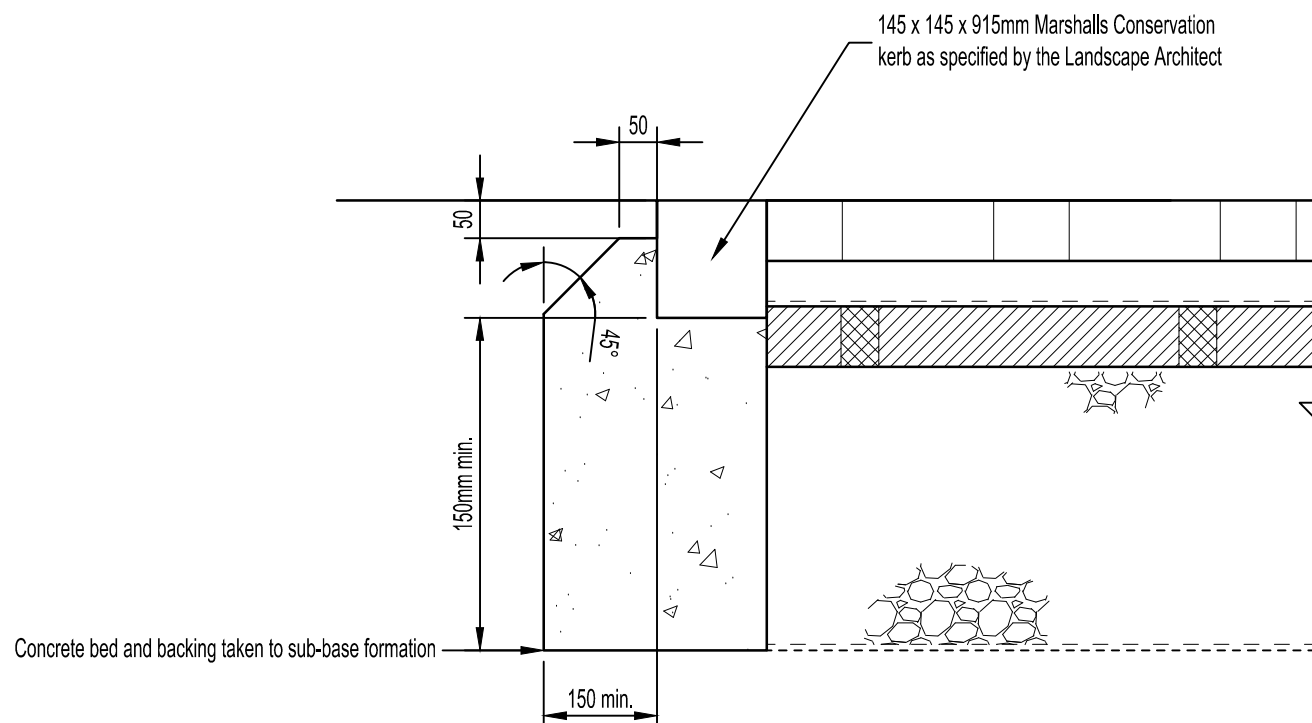
* Sub-base and Capping are based on a minimum CBR of 5%.
Following positive CBR tests, these construction thicknesses can be decreased as indicated in Table 1.



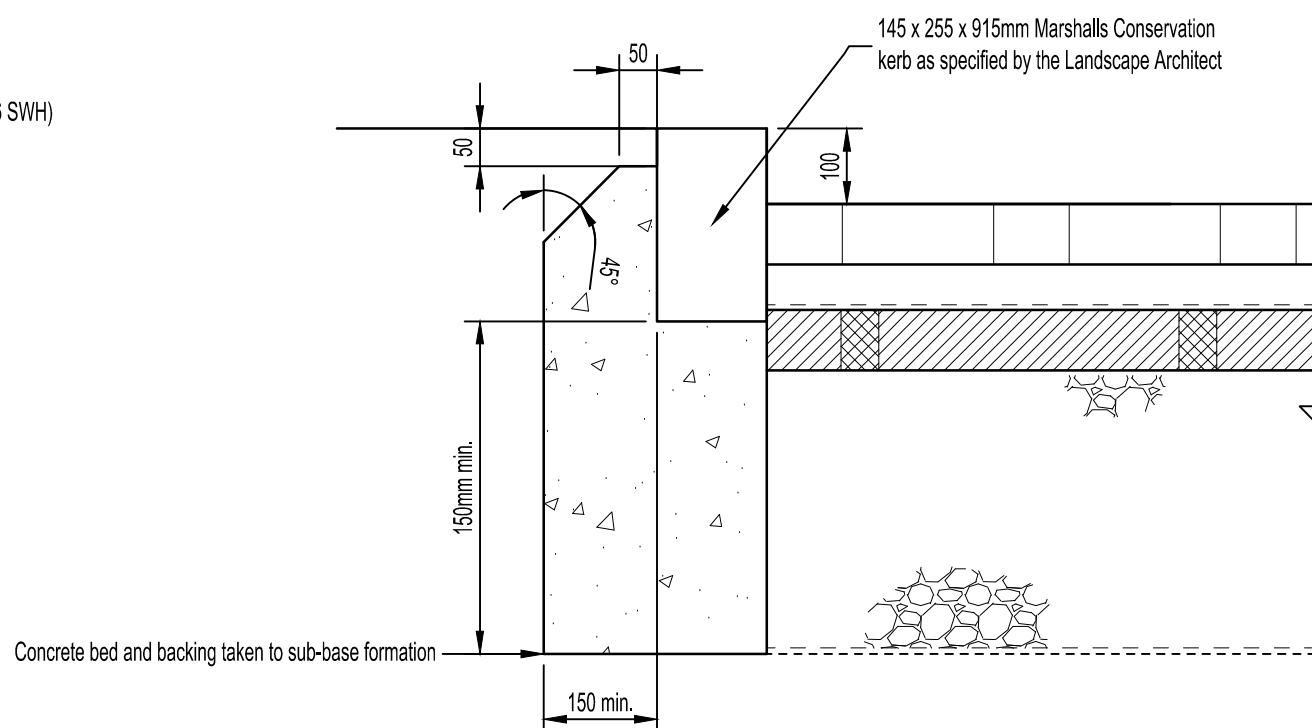
Rubber Mulch Play Surface

NOTE 1: Buildup is suitable for subgrade with minimum CBR 5%.

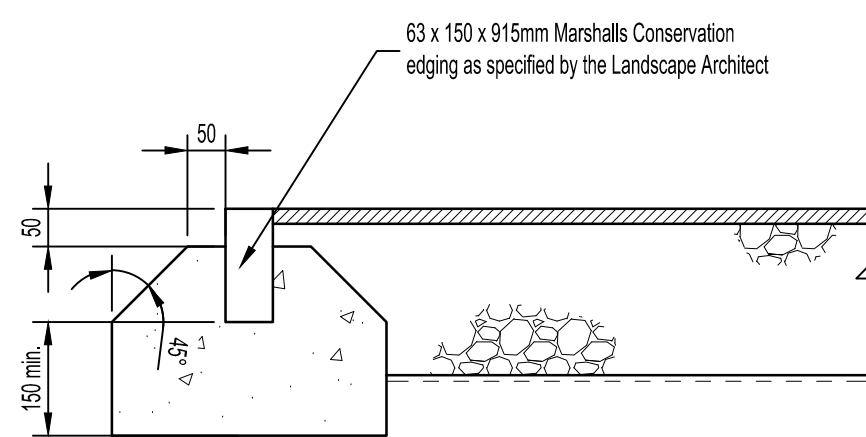
NOTE 1: Buildup is suitable for subgrade with minimum CBR 5%.



Flush Kerb

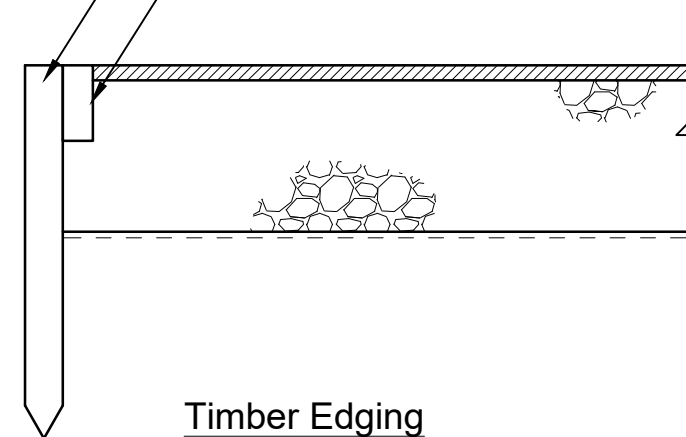


100mm Raised Kerb

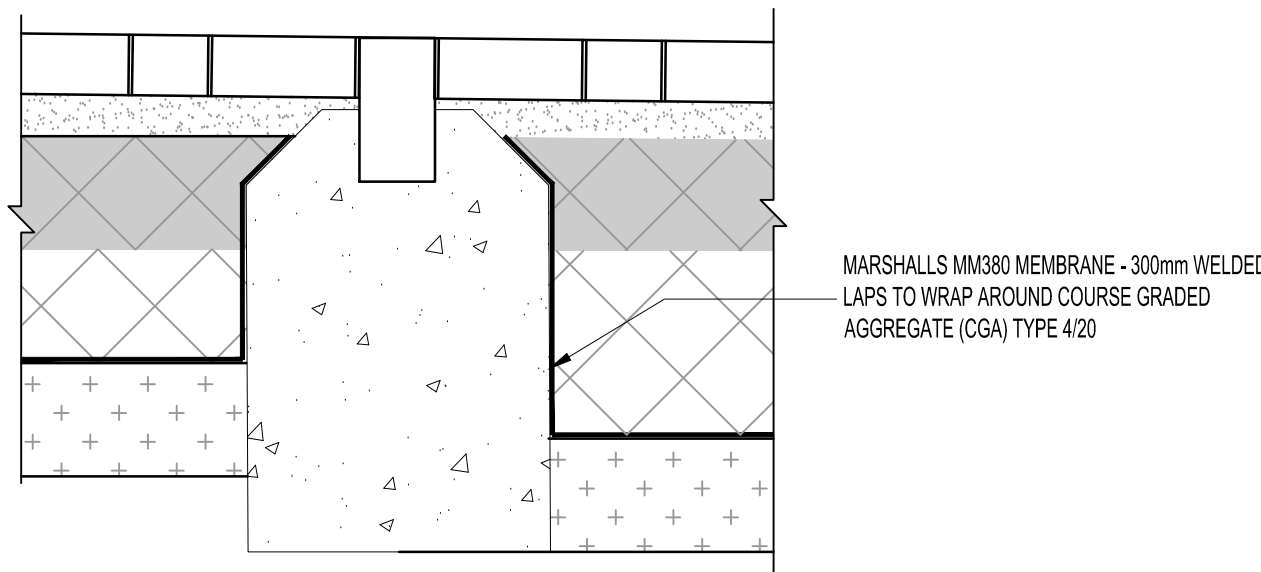


Edging Kerb

Driven 50 x 50 x 500 pointed timber stake either larch or Douglas Fir preserved in accordance with MCHW Clause 311. Stakes should be provided at a max. 1m centres with timber edging fixed by 2 no. 80mm long galvanized nails.
40 x 100 x 2000mm timber edging either larch or Douglas Fir preserved in accordance with MCHW Clause 311.



Timber Edging



TYPICAL FULL HEIGHT RESTRAINT DETAIL FOR STEP IN PERMEABLE STONE SUB-BASE

TABLE 1 - CARRIAGEWAY FOUNDATION THICKNESS			
CBR VALUE	MINIMUM THICKNESS (mm) OF TYPE 1 SUB-BASE TO SHW CLAUSE 803 (CONSOLIDATED IN ACCORDANCE WITH MCHW VOLUME 1 CLAUSE 801, TABLE 8/1)		
	SUB-BASE ONLY		MINIMUM THICKNESS (mm) OF TYPE 6F4/5 CAPPING TO SHW CLAUSE 613
			SUB-BASE CAPPING
<2.5%	CONSULT ENGINEER		
2.5-2.9%	350	150	400
3-3.9%	300	150	350
4-4.9%	275	150	300
5-7.9%	225	150	250
8-15%	190	150	210
>15%	150	N/A	N/A

TABLE EXTRACTED FROM DMRB HD 25/94 FIGURE 3.1

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NOTES

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- The contractor is to undertake soaked, lab based CBR testing following bulk earthworks to verify the formation CBR value and the pavement thickness.
- The contractor shall inform Elliott Wood Partnership of any potential discrepancies.
- Before commencing the construction of the capping layer, areas of sub-formation shall be prepared in accordance with the requirements of clause 613 of the Specification for Highway Works.
- Where subgrade CBR is found to be less than 2.5% it must be permanently improved. (Where the CBR is less than 2.5% it is considered unsuitable support for a pavement foundation.) Where the subgrade is improved, the design CBR must be assumed to be equivalent to 2.5%, in order for the effects of any softer underlying material and the potential reduction in the strength of the replacement material to its long-term CBR.

NOT FOR CONSTRUCTION

P1	S2	21.03.22	HHu	PDa	Issued for Stage 3
rev	sc	date	by	chk	description

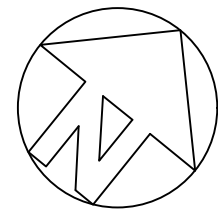
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Project
Proposed Great Wolf Lodge.
Chesterton, Bicester,
Oxfordshire

Drawing title
External Works Details
Sheet 1 of 2

Scale (s)		Date		Drawn		
1:10 @ A1		March 2022		HH		
Drawing status				Status	Revision	
Preliminary				S2	P	
Project no.	Originator	Zone	Level	Type	Role	drg no.
2180501-EWP-ZZ-00-DR-C-5100						



This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

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LEGEND	
— 84.000	PROPOSED MAJOR CONTOUR
— 84.100	PROPOSED MINOR CONTOUR
+ 84.854	PROPOSED SPOT LEVEL
1:40	PROPOSED SURFACE GRADIENT
CH 10.000	PROPOSED CHAINAGE
— 1:40	PROPOSED EMBANKMENT (FILL)
— 1:40	PROPOSED EMBANKMENT (CUT)
—	SITE BOUNDARY
—	MAIN RESORT BOUNDARY
—	NORTHERN PARK BOUNDARY

PROPOSED RETAINING WALL TO STRUCTURAL ENGINEERS DETAILS

NOTES

- CONTOURS ARE SHOWN AT 50mm INTERVALS.
- ALL AREA OUTSIDE OF PROPOSED CONTOURING ARE TO REMAIN AS EXISTING.

NOT FOR CONSTRUCTION

P3	S2	17.06.22	HHu	PDa	RIBA 4 Issue
P2	S2	30.03.22	HHu	PDa	RIBA 3 Issue
P1	S2	18.02.22	PDa	KTr	RIBA 3 Part 1 Issue
rev	sc	date	by	chk	description

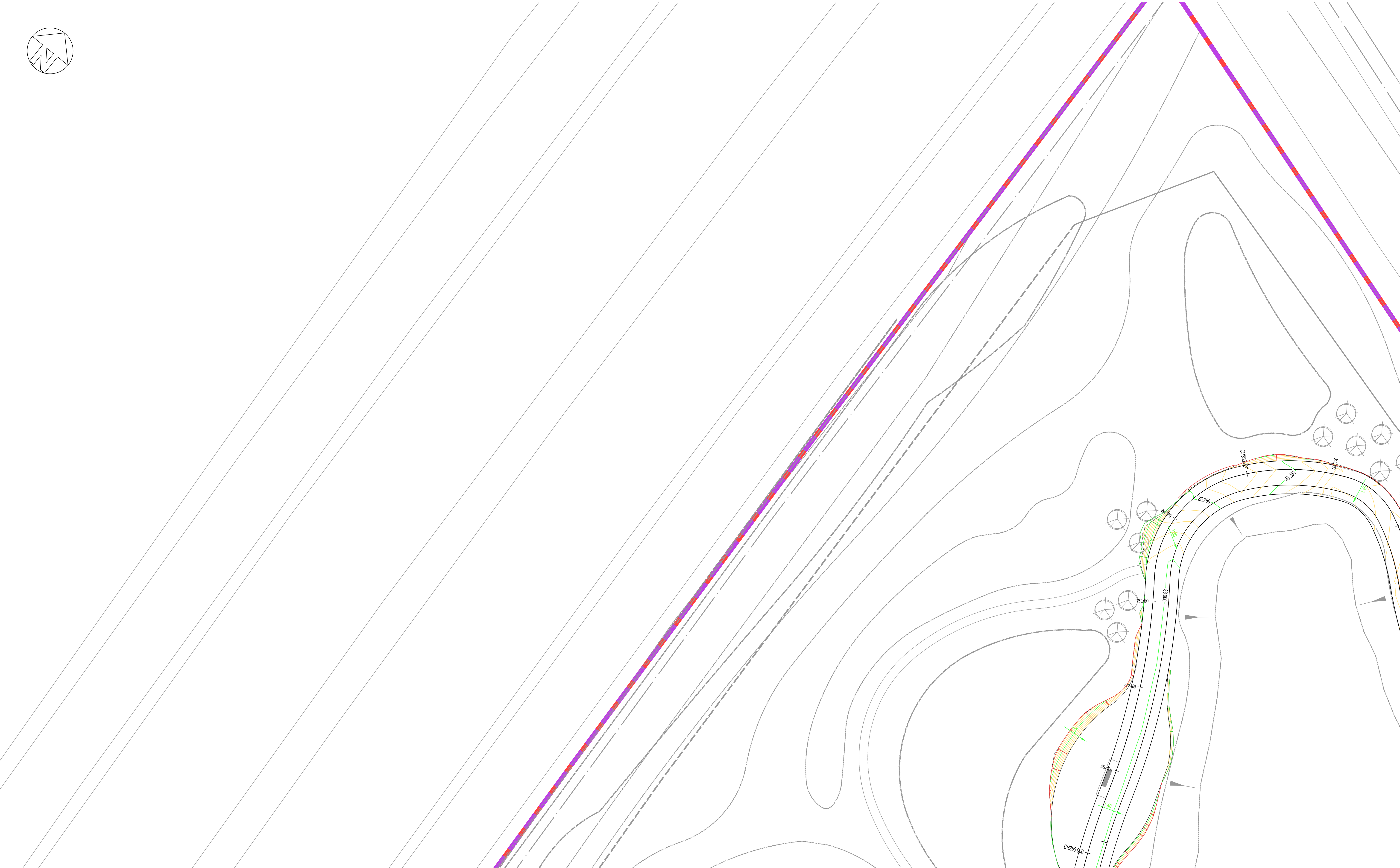
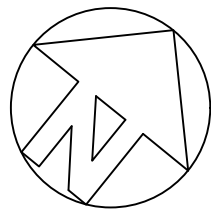
Drawing title
External Levels
Site Overview

scale (s) 1:1250@ A1; 1:2500@A3
date February 2021
drawn PDa

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Project Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire					
Drawing status Preliminary		Status S2		Revision P3	
Project no.	Originator	Zone	Level	Type	Role
2180501-EWP-ZZ-EX-DR-C-5299					drg no.



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LEGEND	
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED SPOT LEVEL
	PROPOSED SURFACE GRADIENT
	PROPOSED CHAINAGE
	PROPOSED EMBANKMENT (FILL)
	PROPOSED EMBANKMENT (CUT)
	SITE BOUNDARY
	MAIN RESORT BOUNDARY
	NORTHERN PARK BOUNDARY
	PROPOSED RETAINING WALL TO STRUCTURAL ENGINEERS DETAILS

- NOTES
- CONTOURS ARE SHOWN AT 50mm INTERVALS.
 - ALL AREA OUTSIDE OF PROPOSED CONTOURING ARE TO REMAIN AS EXISTING.

NOT FOR CONSTRUCTION

P3	S2	17.06.22	HHu	PDa	RIBA 4 Issue
P2	S2	30.03.22	HHu	PDa	RIBA 3 Issue
P1	S2	18.02.22	PDa	KTr	RIBA 3 Part 1 Issue
rev	sc	date	by	chk	description

Drawing title
External Levels
Sheet 1 of 23

scale (s)
1:200@ A1; 1:400@A3

date
November 2021

drawn
PDa

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Drawing status Preliminary			Status S2		
Revision P3			Revision P3		
Project no.	Originator	Zone	Level	Type	Role
2180501-EWP-Z1-EX-DR-C-5300					drg no.



This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

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LEGEND	
— 84.000	PROPOSED MAJOR CONTOUR
— 84.100	PROPOSED MINOR CONTOUR
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—	SITE BOUNDARY
—	MAIN RESORT BOUNDARY
—	NORTHERN PARK BOUNDARY
—	PROPOSED RETAINING WALL TO STRUCTURAL ENGINEERS DETAILS

- NOTES
1. CONTOURS ARE SHOWN AT 50mm INTERVALS.
 2. ALL AREA OUTSIDE OF PROPOSED CONTOURING ARE TO REMAIN AS EXISTING.

NOT FOR CONSTRUCTION

P3	S2	17.06.22	HHu	PDa	RIBA 4 Issue
P2	S2	30.03.22	HHu	PDa	RIBA 3 Issue
P1	S2	18.02.22	PDa	KTr	RIBA 3 Part 1 Issue
rev	sc	date	by	chk	description

Drawing title

External Levels

Sheet 2 of 23

scale (s)	date	drawn
1:200@ A1; 1:400@A3	November 2021	PDa

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Project					
Proposed Great Wolf Lodge, Chesterton, Bicester, Oxfordshire					
Drawing status		Status		Revision	
Preliminary		S2		P3	
Project no.	Originator	Zone	Level	Type	Role
2180501-EWP-Z2-EX-DR-C-5301					drg no.