DESIGN SUBJECT TO THE APPROVAL OF:
PLANNING AUTHORITY
BUILDING CONTROL

DESIGN SUBJECT TO THE CONFIRMATION OF:
EXTERNAL LEVELS DESIGN
LOCATION AND DEPTH OF EXISTING UTILITIES
ROOT PROTECTION AREAS

Site Specific Notes

1. Proposed SW drainage designed based on desktop study available BGS Historical Borehole Logs.
2. Surface water runoff to be attenuated and discharged into the existing SW public sewer re-using existing onsite drainage. Surface water runoff to be restricted to1l/s.
3. Surface water drainage has been designed to cater for the Critical 1 in 100 year + 45% climate change event.
4. Foul water design by others.

THE PROPOSED SURFACE WATER OUTLET CONNECTION PIPE TO BE RE-CONSTRUCTED DUE TO THE EXISTING PIPE BEING BLOCKED WITH TREE ROOTS. NEW PIPE TRENCH TO BE SURROUNDED WITH TREE ROOT BARRIER TO PREVENT FROM BLOCKAGES. ANY WORKS TO EXISTING HIGHWAY DRAINAGE TO BE AGREED UNDER SECTION 278 AGREEMENT.

AT1
Attenuation Tank using Polypipe Polystorm R- units wrapped in impermeable geomembrane
24.5m² x0.8m Deep
Total 18.62m³ storage for 1 in 100 year + 45% peak storm event
CL 19.200
TOTL 19.55
BOTL 17.75
Min 450mm cover to units
Tank to be vented

Proposed storage to be located beneath the parking area construction to add weight and prevent the pot[illegible] tank from floating, consider the GWL has been confirmed at 1mBGL.

Proposed Car parking location

EX MH5
CL UNK
IL UNK

S2
Orifice - 500Ø Flow Control Chamber
Restricted to 1l/s
CL 19.000*
IL 17.740
SL 17.440
300Ø CP
C250

Existing outlet pipe condition to be confirmed. Due to the close proximity to the existing tree, existing pipe is likely to be blocked by roots. Subject to site confirmation, existing pipe to be replaced with 100Ø pipe.

S1
CL 19.300*
IL 18.015
SL 18.015
450Ø CP
C250

EX MH3
CL UNK
IL UNK

EX MH4
CL 18.376
IL 17.376

EX SWD 100Ø 3.1m 1:UNK

Existing manhole to remain. Proposed SW drainage to be connected into the existing MH4. MH4 invert level calculated based on topographical survey CL and manhole depth provided by the site.
Existing outlet connection pipe from site to be replaced due to the existing pipe being blocked by roots.
ANY WORKS TO EXISTING HIGHWAY DRAINAGE TO BE AGREED UNDER S278.

Existing 100mm diameter Highway drainage to remain as existing.

F1
CL 19.100*
IL 18.300
450Ø IC
C250

FWD 100Ø 3.3m 1:80

F2
CL 19.000*
IL 18.180
450Ø IC
C250

FWD 100Ø 11m 1:80 Class 'Z' Bedding

EX SWD 100Ø 13.4m 1:UNK

EXISTING ACCESS ROAD DRAINAGE REMAIN AS EXISTING

F3
CL 19.000*
IL 18.600
450Ø IC
C250

FWD 100Ø 7.9m 1:80 Class 'Z' Bedding

SWD 100Ø 15.2m 1:UNK

EX MH2
CL UNK
IL UNK

Existing ACO channel to be updated using D400 cover. Subject to the existing drainage channel condition it may need to be replaced with ACO MonoDrain channel.

Proposed granite kerb laid flat to delineate access road channel line

Existing access road (shingle) area to be drained as existing and is excluded from contributing area and drainage calculations.

FWD 100Ø 6.1m 1:80

SWD 100Ø 19.1m 1:88

S4
CL 19.300*
IL 17.582
450Ø IC
C250

FWD 100Ø 9.2m 1:80 Class 'Z' Bedding

FWD 100Ø 12.3m 1:80

SWD 100Ø 9.2m 1:100

FWD 100Ø 7.2m 1:80 Class 'Z' Bedding

S5
CL 19.000*
IL 18.630
450Ø IC
C250

F4
CL 19.400*
IL 18.970
450Ø IC
C250

F9
CL 19.050*
IL 18.120
450Ø IC
C250

FWD 100Ø 10.6m 1:80

New FW drainage manhole to be constructed in line with the existing FW drainage.
Final IL and existing sewer depth to be confirmed on-site prior works commencing.

Connection for future build.

EX MH1
CL 18.992 (Topo)
IL UNK

RE
CL 19.160*
IL 18.710

Existing FW Drainage 100Ø 30.6m 1:80 (Assumed)

SWD 100Ø 8m 1:100

Existing building drainage to be re-constructed to a good state. SW drainage to be re-connected into the existing onsite SW drainage.

Existing FW drainage assumed location.

Connection for Barn.

F8
CL 19.400*
IL 19.120
450Ø IC
C250

19.450*
19.200*

DRAINAGE LEGEND (1:100)

PROPOSED FEATURES

- Foul water sewer/drain
- Storm water sewer/drain
- Rainwater pipe (as taken from Randell design Group ' Cart Shed Floor Plan and Elevation' dwg no: 259/ 3.101, dated: November 2022.)
- Storm water access chamber (300Ø)
- Storm water inspection chamber (450Ø)
- Storm water catchpit chamber
- Storm water orifice flow control chamber
- Storm water rodding eye
- Foul water inspection chamber (450Ø)
- Exisitng driveway and car parking area
- 18.250* — Surface level (assumed)
- 00.000* — Finished floor level (assumed)
- 100Ø 4.5m 1:100 Z BED — Pipe info - diameter, length, gradient, bedding type
- Tree protection (as taken from Bernie Harverson 'Tree Constraints Plan', drawing no. BJH 01/02, date: January 2023.)
- Site Boundary (as taken from Randell design Group dwg no: 259/ 3.101, dated: November 2022.)
- Proposed access road kerb line
- Existin Channel drain

ABBREVIATIONS

MH	- MANHOLE
IC	- INSPECTION CHAMBER
AC	- ACCESS CHAMBER
CP	- CATCHPIT
BC	- BRAKE CHAMBER
RE	- RODDING EYE
IL	- INVERT LEVEL
SL	- SUMP LEVEL
CL	- COVER LEVEL

STANDARD DRAINAGE NOTES

1. DO NOT SCALE FROM THIS DRAWING, REFER TO FIGURED DIMENSIONS ONLY. THE CONTRACTOR SHOULD CHECK ALL DIMENSIONS ON SITE.
2. ALL DIMENSIONS IN MILLIMETRES AND ALL LEVELS ARE IN METERS UNLESS NOTED OTHERWISE.
3. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECT AND ENGINEERING DETAILS, DRAWINGS AND SPECIFICATIONS.
4. ANY DISCREPANCIES SHOULD BE REPORTED TO THE ARCHITECT AND/OR ENGINEER IMMEDIATELY, SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO THE COMMENCEMENT OF WORK.
5. BEFORE COMMENCING CONSTRUCTION THE CONTRACTOR MUST CHECK THE INVERT LEVELS OF EXISTING SEWERS TO WHICH CONNECTIONS ARE MADE. IN ADDITION THE CONTRACTOR MUST LOCATE AND DETERMINE INVERT LEVELS OF THE EXISTING SPURS TO WHICH CONNECTIONS ARE PROPOSED. ANY DISCREPANCIES ARE TO BE NOTIFIED TO THE ENGINEER IMMEDIATELY, PRIOR TO CONSTRUCTION.
6. ALL DRAINAGE WORKS SHOULD COMMENCE AT THE PROPOSED DOWNSTREAM CONNECTION POINT, THE WORKS CONTINUING UPSTREAM FOLLOWING CONFIRMATION OF THE TIE-IN INVERT LEVELS TO THE ENGINEER. CONNECTIONS TO MANHOLES OR LARGER SIZED PIPES ETC. SHOULD BE SOFFIT TO SOFFIT UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER, IF THIS IS NOT POSSIBLE INFORM THE ENGINEER IMMEDIATELY.
7. COVER LEVELS SHOWN ARE APPROXIMATE. COVERS AND FRAMES SHALL BE SET TO FINISHED GROUND LEVELS AND FALLS.
8. ALL UN-REFERENCED PIPES ARE ASSUMED TO BE 100mm DIA
9. ALL PIPES TO BE ADOPTED, OR CONNECTING TO ADOPTED SEWERS, TO BE VITRIFIED CLAY TO BS EN 295 AND BS65 (SWS ONLY), OR CONCRETE PIPES TO BE EN 1916 AND BS911:PART 1.
10. ROAD GULLY OUTLET PIPES ARE TO BE 150mm DIA. WITH CONCRETE SURROUND AND FLEXIBLE JOINTS. ALL GULLIES SHALL BE FITTED WITH GRADE D400 GRATINGS AND FRAMES TO BS EN124, UNLESS OTHERWISE STATED.
11. ALL ADOPTABLE SEWERS SHALL BE CONSTRUCTED TO THE STANDARDS AND SPECIFICATION LAID DOWN DOWN IN 'SEWERS FOR ADOPTION' 6th EDITION, WITH A VIEW TO ADOPTION UPON COMPLETION OF WORKS.
12. ALL PRIVATE DRAINAGE TO BE IN ACCORDANCE WITH THE BUILDING REGULATIONS APPROVED DOCUMENT PART-H, AND TO THE SATISFACTION OF THE BUILDING CONTROL INSPECTOR.
13. THE CONTRACTOR IS TO KEEP A RECORD OF ANY VARIATIONS MADE ON SITE, INCLUDING THE RELOCATION OF SEWERS OR DRAINS, SO THAT AN AS CONSTRUCTED DRAWING CAN BE PREPARED UPON COMPLETION OF THE PROJECT.
14. STUB CONNECTIONS TO ADOPTABLE MANHOLES SHALL BE MADE FROM VITRIFIED CLAY AND CONSIST OF TWO ROCKER PIPES LAID AT THE SAME GRADIENT AS THE UP OR DOWNSTREAM PIPE.
15. IF ANY SUB SOIL DRAINAGE SYSTEMS ARE UNCOVERED DURING THE WORKS CONTACT THE ENGINEER FOR INSTRUCTIONS. SUB SOIL DRAINS ARE TO BE DIVERTED AROUND NEW WORKS AND CONNECTED INTO THE SURFACE WATER.
16. NO PRIVATE AREAS ARE TO DRAIN ONTO ADOPTABLE AREAS AND VICE VERSA.
17. ALL EXISTING MANHOLE COVER'S, GULLIES, ETC, ARE TO BE RAISED/LOWERED TO SUIT NEW LEVELS.
18. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THE LOCATION AND DEPTH OF ALL EXISTING SERVICES AND UTILITIES THAT MAY BE PRESENT
19. UPON COMPLETION BUT PRIOR TO HANDOVER, CONTRACTOR TO CARRY OUT FULL CCTV SURVEY OF DRAINAGE SYSTEM WHICH IS TO BE REVIEWED BY ENGINEER TO ENSURE SATISFACTORY INSTALLATION
20. MANHOLE AND CHAMBER COVER GRADES:
    - 'A15' IN ALL LANDSCAPED AREAS AND ON FOOTPATHS
    - 'B125' IN ALL DRIVEWAYS
    - 'C250' IN PRIVATE PARKING AREAS
    - 'D400' IN CARRIAGEWAY/ACCESS ROAD

REVIEWED
chris 07/12/2023 12:08

Prefixed to drawing numbers shall signify the following:-

PL = PLANNING	Shall not be used for contract or construction purposes
P = PRELIMINARY	Shall not be used for contract or construction purposes
T = TENDER	Shall not be used for construction purposes
C = CONSTRUCTION	These are the only drawings that shall be used for construction purposes
R = RECORD	Record of actual completed work

REV	DATE	DESCRIPTION	BY	CHK	APP
P3	04.12.23	UPDATED TO HIGHWAYS COMMENTS / FW ADDED	KCK	TZ	CS
P2	16.11.23	UPDATED TO WSCC HIGHWAYS COMMENTS	KCK	TZ	CS
P1	06.10.23	ATT RELOCATED AND UPDATED TO FEH DATA	TZ	TZ	CS
P-	17.08.23	PRELIMINARY ISSUE	KCK	TZ	CS

cgs civils
Consulting Civil Engineers

CLIENT: CACTUS PROJECTS LTD
ARCHITECT: RANDELL DESIGN GROUP
JOB TITLE: NORTON GRANGE FARM, ALDINGBOURNE, PO20 3NH
DRAWING TITLE: PROPOSED DRAINAGE STRATEGY

DRAWN	ENGINEER	CHECKED	APPROVED
KCK	TZ	CS	CS

DATE	SCALE @ A1
AUGUST 2023	1:100

JOB No.	STATUS	DRAWING No.	REV.
C2757	P	100	P3

FOR PLANNING ONLY

DRAINAGE LEGEND (1:100)

EXISTING FEATURES

- Ex FWD — Existing foul water sewer/drain and manhole
- Ex SWD — Existing surface water sewer/drain and manhole

Existing foul/surface water sewer/drains location reproduced based on the CCTV Survey information provided by others